

Digital Struggles: Fostering Student Interaction in Online Writing Courses

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Dedication

This dissertation is dedicated to my dad and mom, Joe and Jeanne Virtue.

Abstract

Online pedagogical environments present a new set of challenges to instructors who teach them. One of those challenges, often present in online writing courses, is the lack of interaction between students with each other, the instructor, and the course itself. Instead, there is often a certain sense of isolation in online writing courses to the point in which they can feel like modern day correspondence courses. This dissertation provides an overview of a computer mediated discourse analysis conducted during the fall of 2012 of a writing class that employed a combination of independent small groups and a rotating group moderator role. More specifically, each group of students (consisting of 4 members) was invisible to the rest of the class. The groups were used to increase the students' perceptions of visibility within their groups/course and to increase student agency through the group moderator role.

My dissertation focuses on the results from a pre/post survey, three focus groups, and the textual analysis of class forums, peer reviews, and a group project. Using Vygotsky's concept of "zone of proximal development" as theoretical foundation, I will attempt to answer two research questions: 1) How do small groups and group moderators affect student interaction in online writing courses and 2) What course design choices lead to positive student interaction in online writing courses? Although I cannot provide any general claims based on the small sample size of the participants in this situation, I can illustrate how an online writing course changes when it is configured using small groups and assigning group roles. Additionally, I hope to provide insight into how online writing courses can better facilitate course goals by configuring the online environment in

certain ways including ideas on course scheduling, repurposing Web 2.0 technologies, and revising class assignments/activities.

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Chapter 1: Student Interaction and the Surrounding Contexts in Online Writing Courses

Subject of My Dissertation

While a lot of scholarship has looked at the changes instructors need to address when transitioning into online pedagogy, there has been less attention on the students and the skills they use or need to succeed in online coursework. With the current group of 18-22 year old college students coming from a generation labeled as “digital natives,” there is an inherent assumption that they are imbedded with the skills necessary to succeed in online learning. However, while younger students may be more aware and practiced within digital environments, this does not necessarily translate to the ability to learn course work effectively in online environments. The vast majority of students within the United States have been raised in learning environments that incorporate face-to-face meetings, group discussion/communication, and a significant amount of learning that occurs in a more social setting. Consequently, students who are enrolled in online courses also face drastic changes in ways in which they are suppose to learn and interact with the course, the instructor, and their fellow classmates.

The subject of my dissertation lies in this paradox of learning in online environments. I am interested in researching how students engage with each other within online courses and if this has any effect on how they learn. I define student interaction as any meaningful interaction between students that reinforce or expand on the learning objectives of a course. This idea will be discussed in greater detail in the methods chapter. In order to define my subject better, I have included a pilot study that highlights several of the issues that I will discuss throughout my dissertation. My pilot study

analyzes the effects of incorporating small groups and group moderators into an online classroom. While this pilot study does not provide an in-depth analysis of student interaction, it does highlight some of the issues that students face regarding learning in online environments. Specifically, it examines how students perceive the effectiveness of online courses and highlights potential areas that could be improved in the future. I have included some of the results from the pilot study within the introduction to demonstrate that there are issues that need to be addressed in online courses, and to contextualize the study that I have conducted. The results that I have included below tie into how I conducted my dissertation which is described further in Chapter Three.

Pilot Study

I conducted a pilot study during the 2012 summer session in which I incorporated small groups and group moderators into my online section of WRIT 3562W. Due to the length of the summer session (8 weeks), I began incorporating the group moderator roles within the first week of class so that every student would get the chance to be the moderator twice. As a result, there were some issues that occurred due to the shortened length of the course. The first issue was dealing with student turnover. The groups were not as situated as I would have preferred due to students dropping and adding the class in the first two weeks of class. The second issue involved the amount of content in the shortened session. WRIT 3562W has 8 main assignments and smaller activities. Due to the length of the course, students had to cover a significant amount of reading, participate in smaller activities, and work on larger assignments. Consequently, the role of group moderator was an additional time constraint in an already strained schedule.

Each group moderator was responsible for organizing peer reviews, leading class discussions, and taking the lead on initiating the group project. Additionally, I allowed the group members to rate¹ each other's smaller activities and peer reviews. While I thought this may increase the role of student agency in the course, the structure of Moodle made the process difficult. Students were allowed to rate each forum post; however, giving a rating for one student post applied that value to the whole forum. If a student wrote five detailed posts and one weak post, the ratings for the weak post would also be applied for every other contribution in that forum. Due to this situation, I decided to take this component out of my fall study and replace it with a group moderator reflective component. The primary data that I retrieved from my pilot study was from a pre and post survey. The results of the quantitative component of the survey are shown in Table 1.1.

¹ Group moderators were able to give a numerical rating to their group members work, but these ratings did not factor into a student's grade. They were used rate the quality of individual postings within a discussion.

Table 1.1: Quantitative Comparison between Previous Online Courses and WRIT 3562W-067

1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree

Question	WRIT 3562W-067	Previous Courses	Question
My impression of WRIT 3562W is that it makes it easy to interact with my instructor	2.71	2.41	My impression of online courses are that they make it easy to interact with my instructors
My impression of WRIT 3562W is that it makes it easy to receive prompt feedback from the instructor	2.93	2.67	My impression of online courses are that they make it easy to receive prompt feedback from the instructor
My impression of WRIT 3562W is that it makes it easy to work with other students	2.57	2.53	My impression of online courses are that they make it easy to work with other students
Compared to other online courses, my impression of WRIT 3562W is that it was easier for me to be more effective with my time	2.77	3.28	My impression of online courses are that they make it easy to allow me to be more effective with my time
My impression of WRIT 3562W is that it has allowed me to succeed in my coursework	2.71	2.82	My impression of online courses are that they have allowed me to succeed in my coursework
My impression of WRIT 3562W is that the instructor managed it effectively	3.07	2.89	My impression of online courses are that instructors manage online courses effectively
My impression of WRIT 3562W is that it was more effective than face-to-face courses	2.08	1.94	My impression of online courses are that they are more effective than face-to-face courses
My impression of Moodle is that it is an effective tool for online learning in this course	3.21	3.17	My impression of Moodle is that it is an effective tool for online learning
My impression of WRIT 3562W is that it encouraged small group work	2.86	2.44	My impression of online courses are that they encourage small group work

It is interesting to note that the scores for WRIT 3562W-067 were rated slightly higher in the majority of the questions. However, I cannot place much weight on the results due to

the small sample size. There were 20 students who took the initial survey and 14 students who took the post survey. The results that I found more interesting came from the open ended questions of the survey, especially two questions that focused on the small group and group moderator components of the course.

The first question is as follows:

1. Based on your experience with this online course, how did group interaction affect your learning experience? If you did not interact with your group members, why not?

The responses I received in regards to this question varied in relation to positive, negative, and indifferent experiences with the group interaction. I have included some of the sample answers below:

-“Group interaction did not make much of a difference for me.”

-“it was helpful to be able to know that we had a forum to interact on and that you knew you’re [sic] peers would respond, which is easier than trying to email and coordinate a time to meet up, then be limited by an amount of time”

-“Group interaction was more effective than with previous online classes, but less effective than in a face-to-face classroom. Because this is a summer course, classmates had differing schedules that made coordination difficult.”

-“It makes it hard to interact when you are all on different time schedules and when some people do not participate. Students cant [sic] comment on something if there is nothing to comment on.”

The second question looked specifically at the role of group moderator:

2. How did the responsibility of being a weekly Group Moderator and rating your peers' work affect your experience with the course?

Again, the responses varied between positive, negative, and indifferent. I have included some responses to illustrate this point below:

-“It made me responsible and a leader. I liked the responsibility and felt it was good for me”

-“Not at all, did not find this helpful or educational.”

-“Not a lot. I don't think that the forums were particularly helpful, because a lot of them didn't offer an opportunity for feedback. The Data Display layout and Einstein letter were the only two that really had an effective dialogue going on them.”

-“I thought that it was good. It allowed each of us to have to be involved a little bit more twice throughout the class.”

Although the results of my pilot study did not lead me to any specific conclusion/findings, it did help me develop what I thought was important about student interaction in online courses. First, while it was a small sample size, the inclusion of small groups and group moderators did provide higher scores, which led me to believe that group structure has the potential to benefit student interaction in online courses. Second, the student response that described the forums as not “offer[ing] an opportunity for feedback” helped me think out how forums are used within online settings and potential ways to revise the course to benefit the idea of student interaction. Third, and most importantly, the results I received changed the focus of my research strategies. While I believed that the pre and post surveys were the most important element of my

pilot study, textual analysis provided a much better way to examine the concept of student interaction. The results I observed from my pilot study led me to develop two primary research questions, and a better understanding of what I was trying to analyze among student work in online courses.

My Research Questions and the Purpose of this Dissertation

The purpose of this dissertation is to examine the presence and potential effects of student interaction in online writing courses. Online courses are becoming a more significant component of university systems as an alternative to face-to-face courses, but there are still many questions on how to best utilize the technology and environments. There is also a stigma surrounding online learning which presents questions such as how do instructors best utilize learning technologies and learning management systems, how do online courses compare in terms of quality to traditional face-to-face courses, do students receive the same kind of education in online courses, and so forth.

Throughout the six years that I have been teaching, I have constantly been interested in how to engage students with the course materials and the other members of the class. I have explored this question through participation in teaching groups, conversations with colleagues, and reading through pedagogical scholarship. While I eventually adopted a pedagogical style that seemed to facilitate student interaction within traditional face-to-face classes, I encountered several new obstructions when teaching online courses in composition and technical writing. Some of the challenges I faced included adapting to asynchronous communication, communicating without all the available social cues in face-to-face communication, establishing myself as a presence and a facilitator of the material, and re-creating an environment in which there were

intrinsic motivating factors to engage with the class (e.g., not wanting to be “called out” in front of a group of peers). I was not able to simply transfer my pre-existing pedagogical practices onto a new medium, but instead had to re-develop my curriculum to fit within a new environment with new rules. At the same time, I was also interacting with students who also had to re-develop their identities of what it means to be a student. New digital environments provided them with new opportunities in how they chose to interact with their classmates, the instructor, the texts, and ultimately the course.

After researching literature surrounding pedagogy and specifically pedagogy in online environments, I found new ways to articulate what I was doing in my face-to-face classrooms and new ideas on how to reconfigure my online pedagogy. Essentially, I became interested in how I could modify my existing online pedagogy to include techniques such as collaborative learning and increased levels of interaction using the available technologies. I eventually arrived at the idea of exploring the role of student interaction within online writing courses. This led to my main research questions for my dissertation:

- How do small groups and moderators affect student interaction in online writing courses?
- What course design choices lead to positive student interaction in online writing courses?

Each analysis chapter also contains a sub-set of research questions pertaining to the type of discourse being analyzed within that chapter. These questions were developed to help explore specific aspects of the course (peer reviews, class forums, and group projects) as well as help answer my main research questions above. Each chapter provides

background on how the sub-set of research questions feeds into my main questions presented here.

These questions have been tailored after exploring a pilot study in an online section of WRIT 3562W in the summer of 2012. The results of the study led me to focus on the idea of “student interaction” and also explore the discursive elements of each group. My pilot study included results that showed certain small groups thriving, while other groups failed to show any increased level of interaction. After viewing these results, I became interested in exploring the types of interaction between different groups, and whether or not certain styles of interaction fostered increased levels of student interaction.

The Importance of Examining Student Interaction in Online Courses

One of the most exciting and challenging components of online education is the presence of the unknown. While teaching in a traditional face-to-face classroom offers several variables between the instructor, the pedagogy, and students, the inclusion of technology within online courses expands the amount of variables to a new degree. Technology’s presence adds unique variables including asynchronicity, lack of social cues, pre-configured digital learning environments, a vast array of communication tools, and so forth. One of the issues that need to be addressed with all these new opportunities in online environments is to provide new evidence to how it affects students. While some scholars note the potentials and possibilities of online environments, other scholars are noting the new problems that instructors have to face. For example, Mehlenbacher, Miller, Covington, and Larsen (2000) discuss how “[n]etwork-based technologies build learning communities, it is claimed, create opportunities for historically marginalized

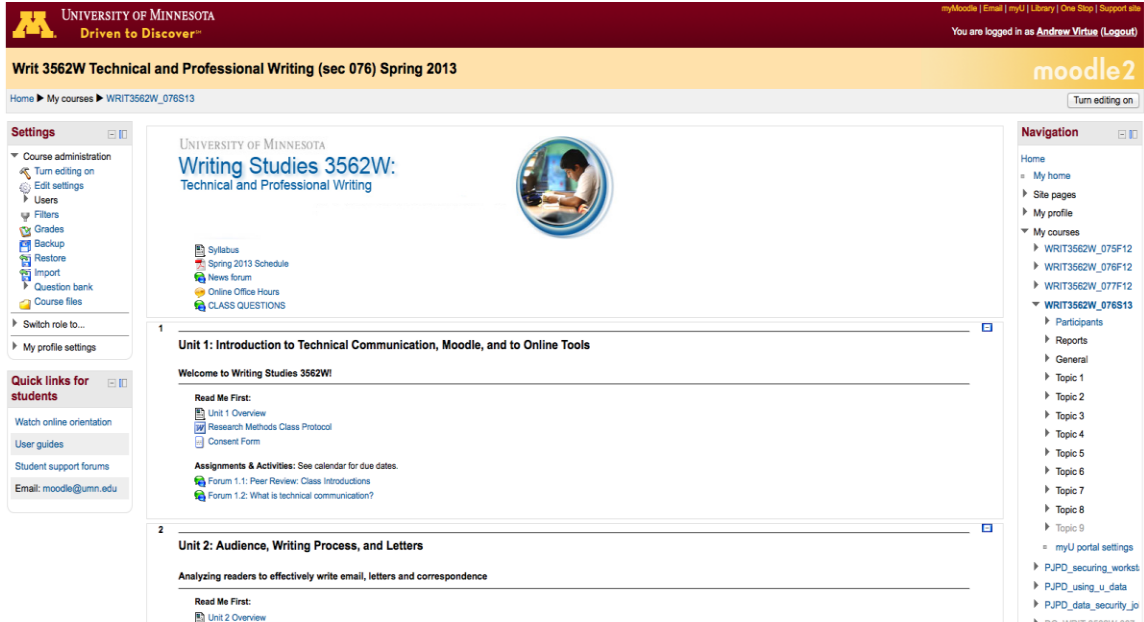
voices to enter into the conversation, and can facilitate the development of student centered classrooms” (p. 167). However, Hewitt (2005) provides a more pessimistic view on online education stating, “Prior research suggests that limited student participation in online discussion appears to be a persistent and widespread problem” (p. 1112). Both of these observations merit further attention in relation to the kinds of variables and resources that students and instructors encounter in online environments.

Looking specifically at the idea of asynchronicity, there are potential positives and negatives associated with it. For example, the idea of asynchronous communication may empower students who typically do not participate in face-to-face classroom discussions. Face-to-face discussions may include students who dominate the discussions or students may be too shy to participate or do not feel they can offer insightful contributions to discussions. In online environments, however, students are free to contribute content to a discussion with a certain degree of anonymity (not being physically in front of classmates) and have time to create a response that has been edited/revised to offer a more polished response. At the same time, asynchronous communication can be problematic in that it takes longer for discussions to evolve, students may not follow much or any of the content from their peers, or students may post content in order to receive credit but which fails to contribute anything to a “class” discussion. In addition to the incorporation of asynchronous communication, the main types of communication included in online courses are often text based which forces students and instructors to deal with the lack of social cues present in face-to-face communication. This point presents a similar situation in which there are potential positives and negatives. In one way, the lack of social cues forces students to be mindful

of their writing and gives them practice controlling the tone of their writing. In opposition to this, students may interpret each other's or the instructor's writing in a different manner than intended, which may affect how they interpret or respond to the course in the future. These are areas that may directly affect how students and instructors participate within online courses.

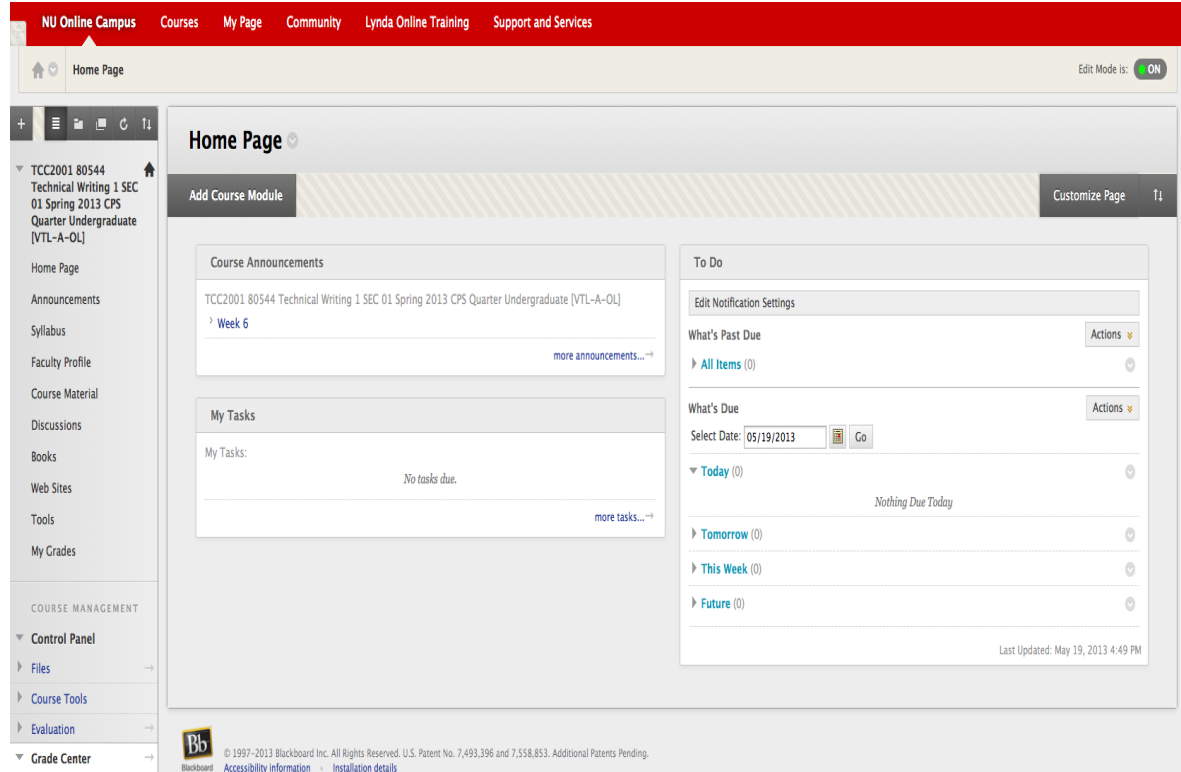
Another area which may have a direct impact on how students and instructors function within online courses is the learning management system or online environment that is used to host the online course. For example, taking a look at two learning management systems (LMS) that are frequently employed by colleges and universities illustrates how they may affect how instructors teach and students learn. Two LMSs that are frequently used are Blackboard and Moodle. By taking a look at each of these LMSs' homepages, we can see how something as simple as layout may affect an online class. In Figure 1.1, you can see the homepage on a Moodle class site.

Figure 1.1: The Homepage on a Moodle Site



The homepage of a Moodle site provides several different links on the left and right portions of the screen, but the middle of the screen shows each Unit of the semester broken down by topic. One way of reading the usability of this site is that it is easy for instructors and students to get a better feel for the course because they have one page with links to every component of the course including the syllabus/schedule, unit overviews, and the links to all the activities and assignments. In this way, the Moodle site is effective because it is relatively easy to navigate through the site and the course material. A LMS site that functions quite differently from Moodle is Blackboard. In Figure 1.2, you can see the homepage on a Blackboard site and see how it contrasts with Moodle.

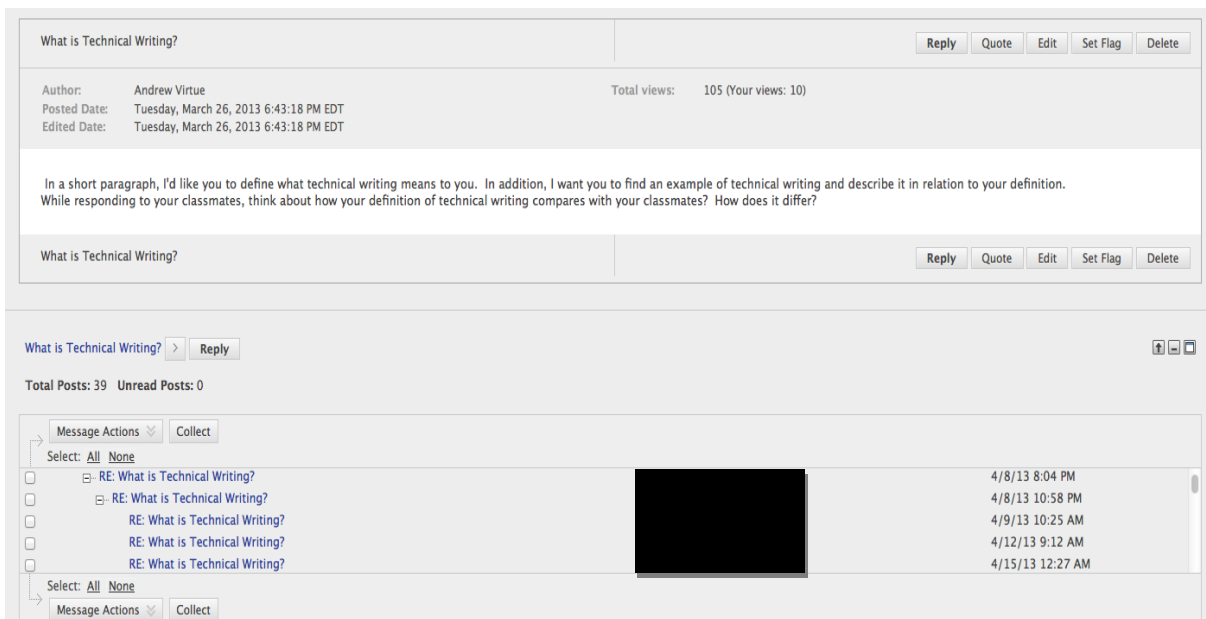
Figure 1.2: The Homepage on a Blackboard Site



The Blackboard homepage differs significantly from Moodle in that it does not provide a breakdown of the course or links to individual activities/assignments. Instead, it offers links to all the course materials on the left side of the screen, while the center of the screen contains course announcements posted by the instructor as well as a “My Tasks” and “To Do” boxes. Both of these site structures offer potential positives and negatives associated with student learning. For example, a student may like the layout of Moodle’s homepage because it offers links to each component of the course, and dislike Blackboard because it is more difficult to navigate to the relevant materials. However, a student might like Blackboard’s homepage because it provides a clear overview of what needs to be completed for that day/week, and dislike Moodle because it is overwhelming with how much information it displays on the homepage.

The specific tools in different LMSs show another component of online environments that may influence how students and instructors interact with online courses. Figure 1.3 shows a discussion page in a Blackboard course. As you can see, only one individual's post is displayed at a time while the rest of the posts are displayed by their subject line. Clicking on one of the subject lines will load a new page that shows that subject line's post while again displaying the thread of subject lines.

Figure 1.3: A Discussion Page on Blackboard



Moodle offers a much different structure through its Forum tool. Looking at Figure 1.4 below, Moodle provides the content of each post in a thread on one screen. This structure provides a much different way of reading all the posts in a thread compared to Blackboard. While these are relatively minor changes in the structure of each LMS, they may have profound impacts on how students interact with the course. For example, one student may like Blackboard better due to the fact that they can only see one post on the screen at a time which makes it easier to concentrate on that post; however, another

student like Moodle better because it allows them to see all the posts in a thread at once making it easier to contextualize each post in relation to the discussion as a whole. The structure of the LMS has direct effects on how students interact with their classmates and the course.

Figure 1.4: A Forum Page on Moodle

The screenshot displays a Moodle forum thread with five posts. Each post is contained within a light gray box with a dark header bar. The header bar includes the subject 'Moderator- Ethical Dilemmas' and the post date and time. The main content area of each post contains the text of the message. Below the text, there is a rating system showing 'Average of ratings: - Rate...' with a dropdown arrow. To the right of the rating system are links for 'Edit', 'Delete', and 'Reply'. The first post is dated Monday, September 24, 2012, at 12:43 PM. The second post is dated Tuesday, September 25, 2012, at 12:16 PM. The third post is dated Tuesday, September 25, 2012, at 05:44 PM. The fourth post is dated Tuesday, September 25, 2012, at 09:44 PM. The fifth post is dated Tuesday, September 25, 2012, at 07:11 PM.

Moderator- Ethical Dilemmas
Monday, September 24, 2012, 12:43 PM

Hey guys!

So, I am lucky enough to be the first moderator for our group; yay me ;)! Anyways, with Forum 3.1 due on Wednesday, I just wanted to ask a question that will get us thinking about ethics and Chapter 4. Feel free to post your thoughts and responses to other people's ideas!

How do ethics play a part in your personal life? Do your personal morals and values weigh heavily on decisions you make day-to-day?

Average of ratings: - [Edit](#) | [Delete](#) | [Reply](#)

Re: Moderator- Ethical Dilemmas
Tuesday, September 25, 2012, 12:16 PM

Please make sure you guys keep checking back so that we can get a discussion going with Forum 3.1 due tomorrow! As the moderator this week, your participation helps both your grade and mine, so please participate! Feel free to open the discussion to what you wrote for your answer to the question.

Average of ratings: - [Show parent](#) | [Edit](#) | [Split](#) | [Delete](#) | [Reply](#)

Re: Moderator- Ethical Dilemmas
Tuesday, September 25, 2012, 05:44 PM

I am a little confused. Are we suppose to just post an answer to the question you have posted above??

Average of ratings: - [Show parent](#) | [Edit](#) | [Split](#) | [Delete](#) | [Reply](#)

Re: Moderator- Ethical Dilemmas
Tuesday, September 25, 2012, 09:44 PM

Yes, with the topic of our assignment being ethics, I figured I would start a little discussion on it.

Average of ratings: - [Show parent](#) | [Edit](#) | [Split](#) | [Delete](#) | [Reply](#)

Re: Moderator- Ethical Dilemmas
Tuesday, September 25, 2012, 07:11 PM

Each type of LMS also comes with a variety of digital tools that instructors can use to shape the course. For example, Moodle contains the following digital tools that an instructor can incorporate to the course:

Resources:	Activities:	
Book	Assignment	Database
Label	Choice	Feedback
Video resource	External Tool	Lesson
File resource	Glossary	Survey
Page - Text or Web	SCORM/AICC	Wiki
Folder resource	Voice Tools	Chat
Link to course file or website	Certificate	Dialogue
	Workshop	Forum
	Video Upload	Quiz

These tools offer instructors a variety of ways to configure their courses, but it takes time to learn how all of these tools function—both for the instructor and student. This issue presents some challenging dilemmas regarding how much time an instructor wants to focus towards teaching or answering questions about LMS tools, how much time students are willing to dedicate to learning new LMS tools, and whether or not the inclusion of these tools actually reinforce learning and help with achieving course goals.

The reason I have discussed the role of asynchronous communication, LMSs, and digital educational tools is not only because they demonstrate the types of challenges that both students and instructors face in online courses, but also because they factor into how students interact. I am interested in the role of student interaction in online courses, but it is critical to think about this concept while also being aware of other factors that may influence it. Several variables exist in online education, but I argue that student interaction is important to online pedagogy because increasing the level of interaction has the potential to increase students' investment in online courses and learn more based on their interactions with other students. Baron (2008) makes an important observation

regarding Facebook and an idea similar to interaction explaining, “One of the reasons that the site [Facebook] is so popular is that it enables users to forgo the exertion that real relationships entail” (p. 85). Something similar may be occurring in online courses in which students, intentionally or not, opt out of the types of “relationships” that develop in face-to-face courses. However, this is an issue that can be addressed by making conscientious choices in how students work in relation to each other in online environments. The ways in which instructors think about how students engage with each other and the courses they are taking could potentially influence some of the other variables discussed earlier. Placing students in small groups may make it easier for students to get to know each other better in online environments and alleviate some of the issues surrounding asynchronous communication and a lack of social cues. Additionally, utilizing small groups and establishing group roles, like a group moderator, can be designed to function in relation to the benefits and limitations of a specific LMS or a specific digital pedagogical tool. The role of student interaction has potentials that need to be analyzed and thought about in ways that could have important benefits to digital learning. Online pedagogy seems to be becoming more ubiquitous as colleges and universities offer individual online courses, offer entire programs through online courses, or develop new implementations such as MOOCs to address the needs a new age and its student population. There is a sense of importance and a need for digital literacies that focus specifically on education in online environments, and one such need should focus on the role that student interaction has in online pedagogy.

Background Information

My interest in this topic emerged after having taught WRIT 3562W in both face-to-face and online environments. A lot of my teaching in face-to-face environments included in-class activities and assignments in which students solved problems in small groups. This approach provided students with different viewpoints and interesting discussions on how to carry out certain assignments, and seemed to build their confidence before completing the major assignments in the course. However, this approach changed dramatically when teaching WRIT 3562W in an online setting. Despite structuring the online course in a manner that attempted to foster discussion between students, I quickly found that many students interaction with the course and their classmates were minimal. Instead, the course seemed to resemble something like a list of tasks in which students went about completing each task independently and with minimal interaction with their classmates or me as the instructor.

After reviewing some relevant scholarship, several articles referred to the idea that many online courses are nothing more than updated versions of correspondence courses because they fail to create a “class” setting. Instead, online courses often focus on individual interactions with the class material. Using work from scholars like Vygotsky and Gee as a theoretical framework, I conducted a computer mediated discourse analysis of three online sections of WRIT 3562W to explore the role and potentialities of student interaction in online settings. In order to provide an accurate account of my findings, I am triangulating my research using textual analysis, surveys, and focus groups. While the majority of my research focuses on one section of WRIT 3562W that utilizes small groups and a group moderator role, I have also included

research on two other sections of WRIT 3562W that do not separate the classes into small groups. The purpose of including these two additional sections of WRIT 3562W is not to construct a comparative analysis between classes using small groups and classes that do not use small groups, but instead to provide additional context to explore and illustrate what happens with a online writing class that uses small groups.

From an overarching perspective, this dissertation examines the role of student interaction in online writing courses and whether or not it affects the student's perception of the course. Although I cannot provide any generalizable claims based on the small sample size of the participants in my work, I can illustrate how an online writing course changes when it is configured using small groups and assigning group roles.

Additionally, I may be able to provide additional insight into how online writing courses can better facilitate course goals by configuring the online environment in certain ways.

Overview of the Chapters

In this first chapter, I have defined the subject that I will be discussing throughout the remainder of my dissertation, stated the purpose of my study and what I am hoping to achieve, and provided a brief look at the main point I am trying to convey throughout my study. Additionally, I have stressed the importance of my topic in relation to the current state of higher education, provided background information surrounding online pedagogy and student interaction, and how the idea of student interaction could benefit online writing courses. Finally, I have included a brief overview of what to expect from the following chapters.

Chapter Two provides an overview of scholarship exploring online learning and pedagogical theory. Specifically, I look at research that provides an analysis on the

quality of online courses as well as material that examines the potentials of collaborative learning and supporting student roles in the classroom. I examine literature from a variety of scholars including topics on digital environments and asynchronous communication, collaborative learning in online courses, a brief summary on the history of online pedagogy, peer reviewing, and student interaction.

Chapter Three justifies the methodological approach used to investigate the idea of student interaction using theory from Vygotsky, Piaget, and Gee (expand on this more later). This chapter also explains why I used a grounded theory and computer mediated discourse analysis approach, and provides an overview of how I conducted my textual analysis of class forums, a group project, and a series of peer review activities.

Additionally, chapter three explains how I conducted a pre/post survey and three focus group sessions. Finally, I detail my coding process to reinforce my findings and let the reader know the process I undertook to reach those findings.

Chapter Four examines the effects that small groups and group moderators have on peer review activities. Specifically, this chapter examines the differences between three sections of WRIT 3562W on five different peer review activities. Each peer review activity is examined in relation to the context of the assignment and explores the types of comments that students make in peer review activities.

Chapter Five explores the content and level of interaction throughout fourteen class forums among all three sections of WRIT 3562W. The forums are separated into two different categories: task based and discussion based forums. Afterwards, the forums are analyzed in relation to the type of posts students incorporate in the forum. The type

of forum and context of use by each class is analyzed in detail, and includes potential conclusions in relation to student interaction.

Chapter Six reviews the ways in which student groups complete a group project in a digital environment. More specifically, each group is examined in regards to the balance of participation among the group members as well as the behavior categories that are displayed with each forum post. The overall process of each group's discourse and the strategies they used to complete the assignment are examined and contextualized in relation to online pedagogy and communication technologies.

Chapter Seven offers a conclusion of the findings from this dissertation. Specifically, it discusses the findings in relation to the research questions posed in the introduction, contextualizes the findings in relation to current online pedagogical research, and offers suggestions on how the ideas in this dissertation could be expanded upon in future research.

Chapter 2: Literature Review Related to Student Interaction

Introduction

Within the opening lines of his article, “Web-Based Instruction: Getting Faculty Onboard,” Lahaie (2007) asks several vital questions to how we as students and instructors approach online writing courses:

Are our students suited to this method of instruction? Why are colleges and universities so interested in distance education? Which educational theory or theories are compatible with distance education, and how do they affect teaching and learning? Is distance education as good as or better than traditional methods of instruction? How does it compare with traditional methods of instruction in terms of quality? What are the advantages and disadvantages of teaching online for faculty? Does teaching online require different teaching styles? (p. 335)

While my study does not attempt to answer all these questions, this passage from Lahaie illustrates the number of complexities that exist in transitioning the practice of teaching from a traditional face-to-face classroom to an online environment. This chapter provides an overview regarding some aspects of online pedagogy in relation to the idea of student interaction. In addition, this chapter examines scholarship that detail the complexities of online teaching focusing on asynchronous communication, collaborative learning, instructor/peer feedback, and a general overview on the history of computer mediated communication and topics related to communication in online environments.

The theoretical foundation for my work revolves around Vygotsky’s idea of the zone of proximal development and how it relates to student interaction, but I have

included an analysis of literature that focuses a great deal of attention towards computer mediated communication as well as related themes that affect how individuals interact online. The purpose of including this literature is to highlight the nuances of communicating online, and from that point think about how students' interactions are different in online environments versus traditional face-to-face classrooms. Thinking about and understanding the dynamics of communicating online is essential in order to consider how Vygotsky's work applies to the idea of student interaction in online courses.

Computer Mediated Communication

The first research projects involving CMC explored the differences between communicating in digital environments versus communicating in face-to-face settings. It is necessary to think about these differences and how they affect how students communicate online and how they relate to the idea of student interaction. In exploring the differences between oral and literate cultures, Ong (1982) observed that “[d]eeply typographic folk forget to think of words as primarily oral, as events, and hence as necessarily powered: for them, words tend rather to be assimilated to things, ‘out there’ on a flat surface” (32-3). Kaufer and Carley (1994) note these differences and highlight the power of writing due to its “asynchronicity, durability, and multiplicity.” Yet these observations are challenged in digital environments due to the internet's ability of speed and distance in typographic communication. The act of writing as more of a one-way communication to an often anonymous audience changed because the internet provided tools (e.g., email or instant messaging) that allowed near instantaneous communication

between individuals. However, CMC presented new challenges in that it excluded important aspects of communication including “intonation and gesture, conversational turn taking and backchannel feedback, and reliance on a shared physical environment or ongoing relationship to frame the conversation” (Galegher et al., 1998, p. 499). Instead, users attempted to substitute the missing communication cues by developing nuances in their writing such as “spelling, punctuation, typography, and layout for expressive purposes” (Baym, 2000, p. 13). Regardless of the differences of communication in CMC, the internet provided new “rhetorical challenges of legitimacy and authority” (Galegher et al., 1998). These rhetorical challenges provided the next step for researchers to explore in CMC.

Walther and Burgoon (1992) provided a theoretical lens to explore CMC as a new phenomenon that produced specific effects on users in digital environments. Walther and Burgoon employed social penetration theory which he explained as how “depth refers to the degree of knowledge about personal information that relational partners have of each other. This information is transmitted through self-disclosure, so that the degree of disclosure ‘indexes’ the depth of the relationship” (p. 58). The level of depth, however, depends on the type of relationship as well. For instance, new Web 2.0 technologies, like Facebook for example, provide a new type of in-depth relationship through the exchange of messages, photos, videos, and other modern communicational features. While Facebook utilizes relationships based on the interaction and networking of social groups, other relationships can be constructed around a certain idea or movement. Gurak (1997) demonstrates this second type of relationship in her discussions of the Clipper Chip and Lotus Market Place. In her book, groups of people band together through self-disclosure

in the common interest of pursuing action against the Clipper Chip and Lotus Market Place. Although the groups have a certain degree of knowledge of each other, the depth of the relationships may not be as in-depth because they are based on an action rather than pre-existing relationships like on Facebook.

Hiltz and Turoff explain CMC in another way using an economic metaphor. Hiltz and Turoff (1993) state that “no person will continue to engage in any behavior that is not profitable. ‘Profit’ is defined as rewards for engaging in an interaction minus costs. Costs are, essentially, the value of other activities that have to be foregone in order to continue to engage in a particular interactional exchange” (p. 105). In this situation, users essentially behave in a manner that benefits their best interests. Although Walther and Burgoon and Hiltz and Turoff provide some clues to how and why CMC occurs on the internet, it is also necessary to explore specific components of online interactions. One of the big questions related to the idea of student interaction in online classes is how students relate to each other, which leads to whether they value these relationships differently compared to learning in other environments. The next section will explore the idea of values, and how values function in digital settings. The idea of values in digital environments complicates and expands the ideas presented by Walther/Burgoon and Hiltz/Turoff.

Values

Values tie into the idea of student interaction based on what students choose to value in online coursework. Students’ motivations may change dramatically regarding their choice on whether to take a course online, and a collective group of students may

perceive different levels of value in different learning environments. It is difficult to analyze the concept of values on the internet without relating it to digital communities. Jordan (2005) reinforces this point observing that “Virtual communities are made, not populated. Users must work together, albeit not always peacefully, to negotiate between individual desires and communal needs” (p. 205). Along the same lines, Toral et al. (2009) discusses the similarities in digital versus non-digital communities stating, “Online communities have been frequently connected with communities of practice in the sense that communities develop their own routines, formal and informal ‘rules’, and practices evolve as a result of learning [...] Expertise does not appear as a result of being taught, but through direct interaction in the social, cultural, and technical practice of the community” (p. 380). It is through continual interactions that values are built, followed, and changed in online environments. So why are values important in internet studies? The reasons that values are important are because they influence how relationships form and affect how strong relationships are. Values are frequently portrayed through socioemotional content which Rice and Love (1987) defines as “interactions that show solidarity, tension relief, agreement, antagonism, tension, and disagreement” (p.93). Based on this definition, values dictate whether users form together as a community or whether users engage in flaming behavior. Internet users group themselves around “normative traditions” (Baym, 2000) because they lack a shared physical space to engage in as a group. Instead, values substitute for the shared space of a physical environment.

Values are also important in internet studies because they tie into the idea of ethos/trust, which ultimately also ties in to issues of power. Galegher et al. (1998) points out that “over time, people learn and act to enforce group norms and develop a sense of

attachment to the group” (p. 524). These norms, or “values,” represent a social status within any specific digital community. By adhering to the values of a community, an individual user accumulates a type of ethos. Individuals with more ethos possess more respect (and arguably power) within a community, and their usernames come to represent social capital. If you think of a username as a signature, then the signature represents “an abstraction that links an individual’s unique mental model with an external artifact, including a communication [...] that the mental model is responsible for producing [...] Print transformed the author’s signature into a commodity of measurable and relatively enduring value” (Kaufer & Carley, 1994, p. 23). Consequently, the idea of values in digital environments represents one component that factors into the complex relationships between power, ethos, identity, and community in internet studies. Looking at the concept of student interaction, values are a necessary idea to consider because they influence how students interact with each other and form relationships in a learning environment where they lack a physical presence. The next section addresses components of power and privacy in internet studies, but it quickly becomes evident that values still play an important part in how we perceive power on the internet.

Power and Privacy

To begin, I need to address why I combine power and privacy into one section. I combined them for two reasons. The first reason has to do with how some scholars believed that the internet would be a utopian environment because of privacy and anonymity. Privacy, based on internet settings, allowed people to remain anonymous which many individuals thought would empower users because “the content of the

communication [...] can be focused on, without any irrelevant status cues distorting the reception of the information” (Hiltz & Turoff, 1993, p. 91). The second reason is that the creation of technology incorporates choices. Technology is never neutral, but instead is created through a complex process of social construction. One consequence of social construction is that each design choice is imbedded with issues of power.

Power and privacy are inextricably linked whether you consider the “utopian” possibilities of the internet or the relationship between design choices and power. These issues of power and privacy also exist in online courses, and it is necessary to consider them and how they affect how students interact with each other and the course, and how this may affect student interaction.

Privacy on the internet allows certain affordances that are not always available in the “real” world. For example, anonymity “assert[s] control over when we interact [and] with whom [we interact]” (Baron, 2008, p. 5). As one student responded, “It’s not that I want to be connected, it’s that I want to be able to make a connection” (p. 137). The privacy features on the internet offers users a certain level of control over interaction, and can alleviate the communicational and social barriers that can be embedded in gender, age, race, and attractiveness. Additionally, the internet offers a platform in which “people who otherwise might feel powerless are able to express their ideas in an easy, comfortable medium, encouraged by the thought of joining their pieces with those of others” (Harrison & Barthel, 2009, p. 172). However, in opposition to these ideas is that our use of language still relegates us to the judgment of others. Kennedy (2006) asserts this point by describing that “electronic persons are not more ‘equal’ than proximate individuals, we just use different criteria to rate them” (p. 864). Language, and the

presentation of language, still contains social markers that lead to judgment on the internet.

While I could focus on specific topics to demonstrate the existence of power relationships online, for example digital surveillance, I address a more broad examination of the conflicting ideas of technological determinism versus the social construction of technology. Gurak (2001) refers to Welch who “argues that literacy in an age of electric rhetoric must make room for differing kinds of knowledge and must recognize that literacy is always connected to issues of power—who owns information and who controls it” (p. 21). Technology is created through human agency, and that demands a critical literacy to understand the full potential and consequences of the internet. One problem that frequently occurs is what Haas refers to as the “transparent technology myth”. Haas (1996) describes this phenomenon as “the assumption that technology is all-powerful. In this view, computer technologies are self-determining: They will have far-reaching and profound—but essentially one-way—effects” (p.35). Turkle (1995) provides an example of this describing how “The simulated desktop that the Macintosh presented came to be far more than a user-friendly gimmick for marketing computers to the inexperienced. It also introduced a way of thinking that put a premium on surface manipulation and working in ignorance of the underlying mechanism” (p. 35). In Turkle’s example, the ease in usability allows the user to be blissfully ignorant of the design choices that went into the simulated desktop, and what sacrifices were made to create the desktop.

Haas (1996) provides a similar example in analyzing the design of a scroll bar and a menu feature at a company. Although a scroll bar and menu are relatively small scale in the world of computers, Haas demonstrated how the implementation of these features

“included issues of power and politics, matters of timing and cost, and rival theories about software design” (p.163). Each design and implementation that occurs online also carries with it a series of choices—human agency—that inevitably contain issues of power. Student interaction is affected by both power and privacy. This section noted how individuals can choose when to interact with each other, and that is an important issue to consider in thinking about how students function collectively in online spaces. The idea of technology being socially constructed is also pertinent, especially regarding how course design choices affect student interaction. Instructors may not literally build the learning management system environments that the class exists in, but they do make a number of choices that have direct ramifications in how students function within the course—something that can directly affect student interaction. Questions of power and privacy can quickly transition into the idea of ethos/trust, and how to create or foster that in online environments.

Ethos and Trust

While the idea of ethos and trust is an essential component to online interaction (especially when thinking about positively affecting student interaction), there are few scholars who specifically address this topic. Instead, most scholars seem to infer the idea of ethos when they talk about other issues such as values, anonymity, identity, etc. However, two scholars, Gurak and Jordan, analyze the importance of ethos and trust by performing case studies that rely heavily on these concepts. Gurak studies ethos regarding the online social movements against the Clipper Chip and Lotus Market Place; Jordan examines the concept of trust regarding a blog community and a “fake”

individual. Gurak (1997) quotes Reynolds to argue that “ethos is not measurable traits displayed by an individual; rather it is a complex set of characteristics constructed by a group, sanctioned by that group, and more readily recognizable to others who belong or share similar values or experiences” (p. 14). This idea relates back to the concept of values and alludes to the fact that ethos is constructed and accepted through group/community standards. However, this can be problematic based on what communities “choose” to accept. In Jordan’s (2005) article, an individual creates a popular blog which fakes an online identity that eventually suffers a “virtual death”. Although the online identity was always fictitious, several followers of the blog believed the individual was real (even for a time after the fake death). Jordan explains why this happened stating, “When it comes to making decisions about authenticity online, the standard seems to be more about consistency than absolute certainty. An online persona is deemed authentic if enough of its pieces seem to fit together” (p. 204). This observation complicates how we perceive trust in digital environments, and challenges how valuable trust is on the internet.

In both the Clipper Chip and Lotus MarketPlace case study, Gurak (1997) contends that “Communities are inclined to believe what already appeals to their values; this inclination is especially apparent in the MarketPlace postings, where inaccurate information was not challenged” (p. 93). In the MarketPlace example, individuals were willing accept any information as long as it supported their cause against MarketPlace (which again demonstrates the importance of values online). Jordan (2005) makes a similar observation in that “whether or not she [Kaycee] was real was immaterial, what mattered was that Kaycee’s blog had brought virtual strangers together and fostered a

sense of community spirit amongst the participants” (p. 206). Followers of Kaycee’s blog were more interested in the “positive intentions” rather than the “negative consequences”. In all three of these cases, the end justified the means. Ethos was only important as long as it embodies the values shared by the communities. While I cannot make any general conclusions about the use of ethos within the classroom based on these three cases, studies on student interaction would benefit by conducting additional research that determines students’ perception on the value of ethos versus how ethos is employed in their day to day student behaviors.

Identity

One question that has been the focus of internet studies for a long time is the role of identity in online environments. Do users simply translate their “real world” selves onto the internet or do users create or emphasize different kinds of identities? This question has significant implications on how students perceive themselves as learners in online courses, and how this affects how they interact with their classmates. Jordan (2005) notes the importance of online identities and describes how “the Internet has been characterized as an ‘identity laboratory’, a metaphor echoed in claims that ‘almost the sole purpose of chatrooms and MUDs is the construction of and experimentation with the user’s identity’” (p. 203). Turkle (1995) offers a more in-depth look at identity quoting a twenty-six-year-old MUD user, “‘I’m not one thing, I’m many things. Each part gets to be more fully expressed in MUDs than in the real world. So even though I play more than one self on MUDs, I feel more like ‘myself’ when I’m MUDding,’” Turkle continues, “In real life, this woman sees her world as too narrow to allow her to manifest

certain aspects of the person she feels herself to be. Creating screen personae is thus an opportunity for self-expression, leading to her feeling more like her true self when decked out in an array of virtual masks” (p. 185). These observations present the idea of identity as something that is understood very differently between “real” and digital environments. In the “real” world, individuals seem to possess an all-encompassing identity that represents their being. In opposition to this, identities in digital environments are highly fragmented and represent very specialized components of our being.

Why is this way of looking at identities important to student interaction? It is important to student interaction because it provides one dimension to consider in looking at how and why students interact in online courses. The internet has provided new and tangible ways to study human identity and demonstrates that identities are “subject to a radical historicization, and are constantly in the process of change and transformation” (Kennedy, 2006, p. 865). Users’ contributions to internet sites provide researchers with the opportunity to carry out empirical research, and explore how identities form and evolve. Additionally, Baym (2000) argues that "Any voice within a community is heteroglossic, combining others' voices in individualized ways" (p. 158). Again, digital communities are an integral component to understanding identity, and reflectively how identity shapes community. While I believe that looking at factors that affect online communication are critical when studying any kind of online interaction, the rest of this chapter examines components of online environments that are more directly related to online pedagogy. To begin, I look at ways in which digital environments and asynchronous communication have the potential to affect how online courses function.

Digital Environments and Asynchronous Communication

The role of asynchronous communication plays a significant role in online courses and how students relate to the course. Web 2.0 has begun to offer new opportunities for students and instructors to incorporate various media, but often a significant portion of online courses revolve around text (especially in writing based courses). Asynchronous communication has both positive and negative attributes associated with it, and both have been explored within academic studies.

In an article by McNeil, Robin and Miller (2000), they discuss the unique elements of asynchronous communication that benefit the students. The benefits they discuss have to do with the ability to reflect before/during the writing process. Specifically, McNeil et al. address the fact that students are able to check their writing and grammar more before posting, have more time to reflect on posts since they are not restricted by the demands of face-to-face communication, and it gave non-native speakers more confidence in their contributions to the class (p. 702). The authors point out that “Students felt more a part of class and more connected with their classmates because of more interaction and communication” (p. 702). However, additional scholars address the same ideas of asynchronous communication and discuss how these perceived benefits also provide significant challenges to online discussion. Wise, Perera, Hsiao, Speer, and Marbouti (2011) and An, Shin, and Lim (2009) discuss the problematic elements of asynchronous communication in regards to student expectations regarding the discussion and the architecture of online spaces. Students’ expectations on the communication process can be challenged based on their experiences with traditional face-to-face communication. Students may need to “make active efforts to repeatedly log-in to the

discussion, waiting unknown and variable amounts of time for responses to their comments” (p. 109). The lapse in time between posts may present difficulties in how much a discussion can actually progress before it is time to move on to another assignment/discussion/activity. Additionally, students may lose a sense of investment in the conversation if their contributions do not seem to be equaled by other students within the class. An in-depth study, *The State of the Art of OWI* (2011), mirrors several of the ideas discussed so far. Students note that they like to “rethink a thought before ‘posting’ it to the class or group,” while they also point out the difficulties of “least liking the need to remain motivated” (p. 10). The online environment provides instructors with new opportunities and challenges that should be considered while prepping a course.

Another aspect of asynchronous communication that can present some challenges is the presence and maintenance of forum or discussion threads. Wise et al. (2011) discuss the problem that asynchronous communication is often difficult to follow due to the numerous amounts of posts, the lack of organization between the posts, and being able to see the conversation “as a whole” (p. 109). This situation can lead to other issues such as “Many posts remaining unread (Thomas, 2002), low or superficial levels of interaction between learners (Guzdial & Turns, 2000) and disjointed discussions that do not fulfill the purpose of a locus for meaning making (Herring, 1999; Reyes & Tchounikin, 2003)” (p. 109). Additionally, the learning management system can have an effect on how students view forums/discussions. For example, the usability of forums/discussions between Moodle and Blackboard differ significantly. In Moodle, an initial forum post as well as all other posts are presented on the screen at the same time which gives you a better sense of the whole conversation, but may be overwhelming. In

opposition to this, Blackboard shows the entire thread of discussion titles, but only allows a user to view one post at a time. While this may be less overwhelming, the use of discussions in Blackboard makes it more difficult to get an overall sense of a conversation and makes it difficult to respond to specific passages in multiple posts. These types of issues also raise questions about what types of learning management systems are being used in a classroom and how they affect the learning outcomes of various courses. In other words, the kinds of technology we use within the course have direct and substantial effects on how students learn and interact with each other.

Learning management systems (LMS) are software applications that are developed for educational purposes. LMSs may be used for courses that are entirely online or may be used as a supplement to face-to-face or hybrid courses. The resources embedded within LMSs may include “specific online tools that students interact with such as email and listserv programs, Moos, chatrooms, network file exchange platforms, forums, and computer conferencing software” (Mehlenbacher, Miller, Covington & Larsen, 2000, p. 170). These types of environments can have usability problems or be user-friendly, but it may also depend on the type of course being taught and how it is being used as a learning tool. Consequently, it is important to note that “Technology should enhance the learning experience and not be the learning experience. Miller and King (2003) advised that technology must be matched to the course, and not the other way around” (Lahaie, 2007, p. 337). The idea of technology being matched to the course leads into a discussion about choosing what technologies to incorporate into a class and why. Resta and Laferriere (2007) provide multiple recommendations about using

technology to promote collaborative learning. One of their recommendations argues for a need to research,

student characteristics, particularly of the neo-millennial students now entering higher education and for whom connectivity and communication via technology (e.g., IMing, Blogs, personal web pages, Wikis) is a major part of their lives outside of the classroom. Research is needed to determine whether these students will more likely embrace CSCL [computer supported collaborative learning], or whether they will feel unnecessarily constrained by the affordances of the current CSCL environments and, if so, what elements will need to change.

Resta and Laferriere follow-up on this idea by contextualizing it in relation to the classroom and determining the need to research specific components of CSCL that will lead to meaningful interaction between instructors and students. LMSs may provide a variety of educational tools, but a number of these tools are rarely used due to the time it takes to learn and teach them to students, determining how they can be used with course content, and assessing whether or not they are effective.

Collaborative Learning: Face-to-Face Classrooms vs. Online Courses

One idea that is frequently discussed within pedagogical studies is collaborative learning. Resta and Laferriere (2007) describe collaborative learning as “a learning process where two or more people work together to create meaning, explore a topic, or improve skills.” This description is similar to many definitions of student interaction and collaborative learning, but what does it mean in relation to the communication medium being used. Mehlenbacher, Miller, Covington, and Larsen (2000) attempt to complicate

the idea of collaboration and engagement by arguing that their “data suggest[s] that the type of active engagement that we require of our online students may be different than the type of engagement we expect in a conventional classroom” (p. 178). One of the big elements that differ between online versus face-to-face courses is the ways in which students communicate. For example, McNeil, Robin and Miller (2000) talk about how little things like students talking with each other before class “may not have a direct effect on meeting instructional objectives, but may have an indirect effect on promoting an environment conducive to learning” (p. 701). While online courses may offer introduction forums in which students introduce themselves to the class, there are fewer opportunities to build or sustain a social relationship with classmates.

Instead, students often tend to remain independent from each other and only interact through required components of online courses (e.g. forum discussions, group projects, peer reviews, etc.). Wise et al. (2011) cite various reports that “students often do the minimum work necessary to fulfill participation requirements (Dennen, 2008), and use efficiency-oriented strategies such as reading selectively, skimming through messages, and focusing only on the most recently posted ones (Hewitt, 2003; 2005; Peters & Hewitt, 2010)” (p. 109). How do these types of behaviors affect learning? Many scholars discuss the idea of a social constructivist type of learning in which learning occurs through writing and student interaction. The role of discussion provides outlets for students to offer and debate among various perspectives while also working together to create a sense of meaning and understanding with course materials (Hew & Cheung, 2008; Tallent-Runnels, Lan, Fryer, Thomas, Cooper, and Wang, 2005). Additionally, Hew and Cheung discuss how the act of writing requires a certain sense of

reflection which helps promote “higher level learning such as analysis, synthesis, evaluation as well as clear and precise thinking” (p. 1112). However, difficulties emerge when trying to foster interaction and reflection within online courses. Dennen (2008) illustrates that the idea of discussion itself “requires a pattern of call and response, with turn-taking and listening being as important as contributing thoughts to the dialogue” (p. 1625). This kind of process can be limited due to the nature of technologies available to students and instructors.

Role of Technology in the Classroom

While technology is not the focus of this dissertation, I discuss it here to provide a contextual foundation for two issues related to my research questions. First, it is necessary to discuss the role of technology as it is used in pedagogy—specifically looking at a writing based course. Second, students use technology to communicate with each other and therefore it is important to analyze it as a communication tool. These two issues illustrate what teachers may face in constructing an online course and getting students to become active members within that course.

One of the first questions related to any online pedagogy is how do you import course goals within an online setting; however, this becomes a much more involved question after looking at the technological choices an instructor has to make. Hudson (2007) provides a glimpse into some of these choices stating:

The interaction of new and altered pedagogical variables makes the design of online learning environments complicated. For example, how does the choice of media influence educational discussions? What is the role/impact of discussion moderators? What is the influence of previous

face-to-face interaction on the development of relationships and trust among the students? Do avatars convey necessary social cues, or do they get in the way of the ideas? Can photographs help promote team-oriented relationships or do they promote (perhaps subconscious) bias? As if these design choices were not challenging enough on their own, these choices interact in complicated ways with one another and with more traditional pedagogical choices (e.g., the design of educational activities). (p. 2)

Online courses are not merely the transfer of content from traditional face-to-face courses to an online setting, but instead present instructors with opportunities and challenges that require a reimagining of how to teach students. Breuch (2004) also analyzes the difficulties of transitioning course material to online environments by looking specifically at virtual peer review activities. In providing an in-depth look at how peer reviews function in online environments, Breuch stresses a more general idea that “*pedagogy must drive technology*” (p. 146). However, expanding on Hudson and Breuch’s observations, the technological choices instructors make are often limited by the learning management systems (e.g. Moodle, Blackboard, etc.) put in place by a university. This provides a pre-conditioned environment that instructors have to build their pedagogy, but also complicates the role of technology in the classroom.

Technology is often considered from the perspective of a neutral tool, but technology is anything but neutral. Selber (2004) opens a discussion to this idea by observing that, “The master narrative of technological determinism binds progress with computers in such a compelling way that teachers are deterred from important questions of agency” (p. 88). Technological determinism looks at technology that “has its own

autonomous logic of development” (Feenberg, 2007, p. 138). Feenberg expands on this definition citing two criteria necessary for this belief:

1. The pattern of technical progress is fixed, moving along one and the same track in all societies. Although political, cultural, and other factors may influence the pace of change, they cannot alter the general line of development that reflects the autonomous logic of discovery.
2. Social organization must adapt to technical progress at each stage of development according to ‘imperative’ requirements of technology. This adaptation executes an underlying technical necessity. (p. 138-9)

However, several scholars argue the importance of fighting the idea of technological determinism, and instead critically investigate how technology is conceived, created, and incorporated within our society. Selfe and Selfe (1994) reinforce this point arguing how “An overly optimistic vision of technology is not only reductive, and, thus, inaccurate, it is also dangerous in that it renders less visible the negative contributions of technology that may work potently and effectively against critically reflective habits/efforts of good teachers and students” (p. 430). These ideas have had direct influence on the creation and design of my project and how I think about the relationship between technology and pedagogy in teaching, and more specifically online courses.

First, the technology present in online courses requires a critical engagement of how to most effectively use them to teach students. Instructors cannot simply translate their teaching styles from the medium of face-to-face to online courses. Instead, instructors need to make critical choices of how to adapt their teaching styles to online environments. This is perhaps even more important to online writing courses because of

the nature of writing classes and the commonly used technologies in writing classes. The nature of writing classes is often not a lecture based style where knowledge is transmitted from the instructor to the student through one way communication. Instead, writing courses are often discussion based where knowledge is transmitted through collaboration and group discussion. Many online writing courses are also different from other online courses because they employ asynchronous communication and rely primarily on text-based technologies. Several writing courses rely on forum based discussions as the primary element of communication in the course. Technology has been traditionally used in online writing courses in certain ways so it becomes important to analyze online writing courses from a certain critical perspective. Writing from the perspective of technical communicators, Cook and Grant-Davie (2005) present an edited collection of works that examine ways to support the transition of pedagogy into online learning environments. Some of the topics they address include how the instructor's role change in an online environment (Coppola), the importance of incorporating scaffolding into online teaching (Grady and Davis), thinking about space in online environments (Carter and Rickly), and thinking about collaboration through virtual peer reviews (Breuch). The focus of my dissertation is to look at online writing courses (specifically a technical writing course) and how they use technology related to student presence and interaction.

The second aspect of technology that I am interested in is how students use it for communication. Before analyzing specific tools, it is necessary to understand Web 2.0 technologies. Web 2.0 can be defined as “the ‘architecture of participation’ created by web enterprises whose applications invite, facilitate, encourage or make it possible for users to interact, share knowledge and information with each other and construct content”

(Harrison, 2009, p. 159). Web 2.0 has provided new possibilities for communication and interaction because it has provided new means for individuals to contribute rather than just consume content. Programs offer individuals the means to use technology without really understanding it at a deeper level. Johson-Eiola (2005) demonstrates this point describing how programs “[...] offer low-level functional help—technology training—but completely ignore concepts and broader forms of learning necessary for advanced education and work” (p. 50). This idea ties back into the relationship between pedagogy and technology, but focuses it on the use of specific tools between students.

Haas (1996) provides an example of the complexity of technology as a communication tool when she explores the idea of writing with word processing software. Haas argues that “The myth that technology is transparent posits that technology is a kind of distortionless window: Writing is not changed in any substantive way by the transparent medium through which it passes. In this view, writing is writing is writing, unchanged and unaffected by the mode of production and presentation” (p.34). However, Haas goes on to demonstrate that there are significant differences in the process of writing by hand versus using a word processor. While I am not focused on how students write, I am interested in how communication between students differs between face-to-face settings and online settings. Students in face-to-face settings are afforded different social cues that affect the ways in which they interact in the classroom. Face-to-face interaction provides cues such as body language, eye contact, intonation, etc (add the necessary references). However, it is also important to note that communication in a digital environment also provides new affordances to the individuals communicating. Kiesler (1984) discusses these affordances:

social standards will be less important and communication will be more impersonal and more free because the rapid exchange of text, the lack of social feedback, and the absence of norms governing the social interaction redirect attention away from others and toward the message itself. Indeed, computer-mediated communication seems to comprise some of the same conditions that are important for deindividuation— anonymity, reduced self-regulation, and reduced self-awareness. (p. 1126)

Consequently, it is necessary to think about the communication tools that students use in online courses, and potentially analyze how they affect the communication process within the classroom. For the purpose of this project, I am particularly interested in how communication technologies potentially affect the level of student interaction within online writing courses.

Group Work, Student Communities, and Student Interaction

One of the most significant aspects of this project was looking at students working together in online environments. In order to better understand the nature of students working together, I wanted to look at the different aspects of collaboration that needed to be examined for my study. My initial undertaking was to look at group work in online student environments; however, this quickly transitioned into thinking about groups as mini-communities. For the context of this project, I define an online community as “a persistent, sustained [socio-technical] network of individuals who share and develop an overlapping knowledge base, set of beliefs, values, history and experiences focused on a common practices and/or mutual enterprise” (Barab, Kling, & Gray, 2004). This definition fits with the context of this project because it defines online

communities specifically from a learning perspective. My research on online communities naturally evolved to also addressing the idea of collaborative learning. The remainder of this section will look closer at online learning communities and then investigate the potential of collaborative learning in online environments.

While it is necessary to define community from a general perspective, it is also necessary to look at the term in relation to how it fits within a specific learning environment. Barab, Kling, and Gray (2004) delve deeper into the idea of learning communities and separate communities into three additional categories: task-based, practice-based, and knowledge-based. These authors go on to argue that most learning communities in an educational environment fall under the category of a task-based learning community which they define as:

groups of people organized around a task who work intently together for a specified period of time to produce a product. While the specific group may not, in the strictest sense, share all of the properties of a community, the people who participate in them often experience a strong sense of identification with their partners, the task, and the organization that supports them. The use of community as a context that modifies learning signals a form of learning that is very different from simple collaboration. (Schrage, 1995)

While the basis of a task-based learning community may seem problematic in terms of its potential limitations, it is also beneficial in that it offers a foundation through which an instructor can think about student communities and how to effectively incorporate group work. Two significant limitations include the need to establish trust early on between

community members and the need to coordinate a group effort directed towards the goals of the course in a short amount of time. However, these limitations can be solved by demonstrating the importance of group work in learning, and providing scaffolding relinquishes the responsibility of distributing knowledge from the model of “instructor teaching the students” to “instructor/students teaching each other”. Conrad and Donaldson (2011) stress this point arguing the need for “instructors [to] guide learners in the development of skills needed to engage with the content and with one another online without the instructor being the primary initiator of knowledge generation and interaction” (p. viii). Demonstrating how collaborative learning benefits students can be better understood by looking at the work of educational theorists like Vygotsky and Piaget.

To begin, collaborative learning can be defined as “a learning process where two or more people work together to create meaning, explore a topic, or improve skills” (Resta & Laferriere, 2007). Educational theorists have examined this idea from more focused perspectives looking at the ideal make-up of groups to foster the best learning environments. Vygotsky developed the concept of “zone of proximal development” which is the “difference between the problem-solving ability of an individual independently and the individual’s potential ability when working with an adult or more advanced peer. Vygotsky saw instruction as effective only if it stimulated those abilities and helped the learner across the zone of proximal development” (Conrad & Donaldson, 2011, p. 2). However, another theorist, Piaget, argued that more learning took place when “equal” partners worked together because one individual would not dominate the work (p. 2).

Despite the differences between Vygotsky and Piaget's work, one crucial component was that there had to be some form of interaction between more than one individual. The goal of my dissertation includes noting the importance of collaborative learning, but I am particularly focused on determining how to get students to engage with each other. In this regard, I am interested primarily in finding ways to increase the level of student interaction within online courses. Since several students participate within online courses in a manner isolated from the rest of their classmates, I am trying to find ways to increase the ways they engage with each other by modifying specific elements of the course. The next chapter provides a detailed look at how I structured Section 075 in a manner to encourage interaction and the methods I used to analyze how and if students were engaging with each other in the course. Additionally, this chapter examined specific elements that affect how we perceive and participate in forms of communication in online environments. While I included these sections to contextualize the different variables that could potentially affect student interaction, the beginning of chapter three goes further in addressing the work of Vygotsky and why it is important to my study of student interaction in WRIT 3562W.

Chapter 3: Methods Chapter

Theoretical Framework

The theoretical lens used as a foundation for studying the idea of student interaction comes from the Vygotsky's notion of "zone of proximal development," which he discusses in *Mind and Society* (1978). Within his work, Vygotsky discusses two forms of development within an individual: actual developmental level and the zone of proximal development. The actual developmental level represents "the level of development of a child's [or student's] mental functions that has been established as a result of certain already *completed* developmental cycles" (Vygotsky, 1978, p. 84). In relating this to the idea of my dissertation, it represents the developmental level that a student has acquired before entering WRIT 3562W and can demonstrate independently. Vygotsky (1978) describes the second form of development, the zone of proximal development (ZPD), as "*the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers*" (p. 86). This form of development fits well into the idea of learning in a classroom and learning through interaction with others. WRIT 3562W has a series of course goals that are included in the course syllabus, and these are goals that may be acquired through the aid of student interaction. As mentioned in Chapter One, I define student interaction as any meaningful interaction between students that reinforce or expand upon the learning objectives of the course. Additionally, Vygotsky's notion of ZPD works well based on its malleability in which Daniels (2008) describes, "it can be adapted to meet the demands/expectations/aspirations of researchers with a wide range of

methodological and theoretical orientations” (p. 25). While Vygotsky thought about the ideas of ZPD in relation to younger children and standardized testing, the concepts he uses fit well within higher education environments as well.

The key idea behind the idea of the zone of proximal development is the relationship between learning and socialization. Vygotsky (1978) shares this sentiment when he describes how, “*human learning presupposes a specific social nature and process by which children grow into the intellectual life of those around them*” (p. 88). My idea of student interaction relates to this idea based on how students within WRIT 3562W (as well as all online courses) have the potential to affect how other students understand and interact with class material, and consequently students have the potential to shape how other students learn and meet course objectives. Vygotsky’s work is expanded upon by scholars who have researched it and repurposed it for a broader examination of learning. Daniels (2008) as well as Berthoud-Papandropoulou and Kilcher (1996) discuss the ideas of learning through socialization from the standpoint of creating new spaces within the ZPD and working collaboratively on something until it becomes a part of one’s actual development. Daniels (2008) claims that:

The argument that different settings and activities give rise to ‘spaces’ within the ZPA for creative exploration rather than pedagogic domination is at the heart of their [Cole and Griffin, 1984] position: ‘Adult wisdom does not provide a teleology for child development. Social organization and leading activities provide a gap within which the child can develop novel creative analyses.’” (p. 22).

Within this claim, Daniels seems to express that the role of socialization is in fact more important than the idea of transmitting knowledge from the pedagogue to the student, and that new knowledge is acquired through creating “gaps” through interaction. This idea is crucial within online environments due to the nature of asynchronous communication.

While instructors can have a rich level of interaction in a traditional face-to-face classroom through class discussion, the often fragmented nature of forum or discussion threads combined with the additional time required to reply via text can make it difficult for an instructor to lead a truly interactive discussion in online courses.

Berthoud-Papandropoulou and Kilcher (1996) focus more on how knowledge is gained and can count as a part of an individual’s actual development level. They state that “as far as macrogenetic development is concerned, all superior psychological functions first manifest themselves in inter-individual exchanges and only later become interiorized and part of the subject’s individual repertoire” (Berthoud-Papandropoulou and Kilcher, 1996, p. 174, Tryphon and Voneche Eds). Vygotsky (1978) stresses the same idea in his work:

We propose that an essential feature of learning is that it creates the zone of proximal development; that is, learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers. Once these processes are internalized, they become part of the child’s independent developmental achievement. (p. 90)

These observations by Vygotsky and Berthoud-Papandropoulou and Kilcher illustrate potential difficulties in teaching in online environments. One issue that scholars have

found is that students who are enrolled in online courses often treat these courses as a kind of independent study in which they complete the assignments on their own with little to no interaction with their classmates or the instructor. Although the students can still learn the course material through assignments/activities and course readings, the learning occurs through a transmission of knowledge and may lack the depth that can exist through peer interaction.

The role of student interaction in online pedagogy is important because it can help foster the learning that takes place among students. In discussing the concept of ZPD, Hedegaard (2005) points out that: “Although each child is unique, children obviously share common traits with other children. Being of the same tradition, children in the same class have a lot of knowledge and skills in common. Instruction can build upon these common features if it takes into account that the children vary in their speed and form of learning” (p. 247-in *An intro to Vygotsky*, Daniels ed.). Looking at this observation in relation to WRIT 3562W, as well as other college courses, college students have a similar set of knowledge and skills, but they have also have a different knowledge base that can contribute to other students’ learning. Having students engage with each other challenges their ways of thinking, and often extends the learning opportunities involved in a classroom. While student interaction may occur more naturally in a face-to-face classroom, it does not occur as naturally in an online environment. Incorporating strategies such as small groups and group moderating roles provides a potential way to encourage student interaction in online classrooms. James Paul Gee (2003) discusses the idea of the regime of competence principle which he describes as when “[t]he Learner gets ample opportunity to operate within, but at the

outer edge of, his or her resources, so that at those points things are felt as challenging but not ‘undoable’” (p. 71). This principle seems to fit well with Vygotsky’s idea of ZPD, and the role of classmates interacting with each other can help students work at the “outer edge” of their resources and expand their knowledge base. This section has provided a theoretical framework for why I feel student interaction is important in online courses. Although my study does not focus specifically on whether or not students learn or achieve the goals of the course, the attempt to increase interaction between students has the potential to reinforce the learning of the course goals. The following sections detail my methodology in choosing data to analyze, detailing the way in which I analyzed the data, and why I think it is relevant to my main research questions.

About the Classes: Three Sections of WRIT 3562W

I have examined three sections of WRIT 3562W for this dissertation. Each of these courses was taught by different instructors, but share the same “course shell” developed by the department. While smaller components of the courses may have differed (i.e., teaching styles, amount of communication with students, grading) the core assignments, readings, and activities remained the same. Sections 076 and 077 (taught by me and graduate instructor Tad Patterson) illustrate the “regular” online course dynamic in which each student’s contributions to discussions and activities were made visible to the entire class. While these two sections were not the central focus of my dissertation, I used them as supplemental material to further articulate what was occurring in section 075. Section 075, taught by graduate instructor Dawn Armfield, was the primary class for my dissertation, and explored the idea of student interaction in collaborative based

learning environments. Her section differed from sections 076 and 077 in that her class was broken down into small groups (with each group consisting of four students). The students were kept in those groups throughout the entire semester and could only see content from other groups in the form of class questions. Starting at Week 4, individuals in the small groups took turns each week serving as a group moderator--each student had 3 opportunities to be the moderator. The group moderator's responsibilities were leading forum discussions, overlooking class activity forums, organizing peer review sessions, and potentially leading group assignments. The weekly moderators were also asked to fill out a brief reflective form that summarizes the activities of that week.

WRIT 3562W: Technical and Professional Writing is an upper division course to introduce students to a variety of technical writing genres. The major assignments include writing a professional email, composing a complaint/response letter, constructing a technical definition, creating a data display, a group project conducting a usability study and creating a set of instructions, submitting a progress report, completing an analytical report, and giving a presentation on the analytical report. WRIT 3562W is a double writing intensive course and a required course for multiple majors. Consequently, students compose a significant amount of writing throughout the semester and come from a wide variety of academic majors. For the purpose of this dissertation, the three online courses being examined utilized Moodle's learning management system and incorporated the Writing Studies department's course based shell to maintain a relative consistency between the three courses.

The three sections of WRIT 3562W took place during the fall semester of 2012 at the University of Minnesota. The primary section of the study (075) had a full class of 24

students. Section 076 also had 24 students, while section 077 had 21 students. None of the students chose to have their forums and other work removed from the study; however, not all of the students participated in the pre/post surveys or the focus groups. My study was marked as exempt from review by the IRB at the University of Minnesota. My IRB form, participant consent form, and a list of my survey and focus group questions can be found in Appendix C. This dissertation studies the forum discussions and one group project held throughout the semester as well as the content collected from the surveys and focus groups. The online sections of WRIT 3562W serve as a means to collect qualitative information regarding the processes and outcomes of student interaction in an online writing course². The findings from this study may provide new insights on how to increase student interaction within online writing courses and demonstrate what kind of discursive characteristics foster better collaborative learning environments.

In addition to the major assignments, there are a number of forum activities and reflections that are also required throughout the semester. There were two primary types of forums: task based and discussion based. These are two categories that I developed to conduct my discourse analysis on the forum activities. Task based forums required students to complete certain requirements regarding the unit's goals which were often pulled from the textbook. As seen in Figure 3.1 below, Forum 2.1: Analysis of Complaint Letter, is an example of a task based forum. For this assignment, students need to complete the following questions pulled from an activity from the textbook. While this assignment requires some interaction with other students, the primary activity is independent and can be completed with the textbook.

² Any student name or image has been changed or removed to ensure the anonymity of the students participating in this study.

Figure 3.1: An Example of a Task Based Forum-Taken from Forum 2.1 of WRIT 3562W

Analyze the following sample letter of complaint. Read Chapter 5. Then read through the sample letter of complaint, found [here](#). Post a response in which you address ONE of the following questions:

- What is the rhetorical situation of the letter? (see pages 100-102)
- How well is the letter organized in terms of the subject, purpose, and main point? (see pages 102-106)
- How well has the author used the "you style" with clear but direct communication? (see page 116)
- How well has the author used the letter format? (see page 118)

After posting, read through student responses in all four areas. Respond to one other student who addressed a question that you did not address. To post your response, click on "Add a new discussion topic."

Discussion based forums asked students to focus on specific components of an assignment as well as receive feedback from other students in the class. Figure 3.2, Forum 7.3: Empirical Research, demonstrates a discussion based forum that encourages interaction and feedback among students. While the first part of this activity requires students to answer questions on their own, the second part of the activity asks students to comment on each other's work and help improve the quality of their empirical research.

Figure 3.2: An Example of a Discussion Based Forum-Taken from Forum 7.3 of WRIT 3562W

For this forum, we will be working with the empirical research you plan to use in your analytical report. To begin, reread the sections on p. 398-99 of our textbook. Then answer the following questions below:

What kind of empirical source(s) do you plan to use for your project?

How are you going to conduct your empirical research (will you be observing a specific place/group, will you interview a specific/general group of people, will you be posting a link to a survey somewhere online, etc.)?

If you plan on conducting a survey/interview, what are some of the questions you plan to include?

What questions do you have regarding your empirical research? Do you need suggestions for field observations? Do you want a classmate to take your survey to show whether or not your questions need revising? Do you need help picking a type of empirical research to use for your analytical report?

Again, this forum is meant to be a conversation between classmates-not independent posts. Use this forum to your advantage by strengthening the empirical portion of your project.

Students were also required to complete two types of reflections. The first kind of a reflection was based on the major assignments of the course in which each student had to reflect on the rhetorical choices they made in each assignment and why those were the “best” choices for that assignment. The second type of reflection (that was only required in section 075) asked the group moderator for that week to reflect on her/his observations for the activities of that week. Figure 3.3, Group Moderator Reflection, provides a look at these moderator reflections and shows how each reflection was used to get the moderator to reflect on the week’s activity, but also it was meant to illustrate how learning among students is not just independent--but contingent on what other individuals contribute to the group.

Figure 3.3: Group Moderator Reflection from Section 075

Please answer the following questions:

1. What strategies/techniques did you utilize to benefit your group this week? Refer to the type of activities completed this week (forums, discussions, peer reviews, group project, etc.). How did your contributions help the group?
2. Describe the most positive contribution from a group member this week. Why was it so beneficial/insightful? Some examples might include: student X's comment on the forum really pushed the discussion to examine [...], student Y offered really strong advice on her/his peer review by [...], student Z took the initiative on our group project by doing [...], etc.
3. Describe what your group's dynamic was like this week. Some examples might include: our group's dynamic was very collaborative based on how we all performed on [...], are group worked independently of each other because [...], are group felt disjointed based on how we [...], etc.

Role of the Researcher

In order to better understand the process of my study, I would like to explain my role within the three online courses being observed. My most visible role within the study was that I was the instructor for WRIT 3562W section 077. I chose to use my own section within the study because there were a small number of online courses to include in my study, and I wanted courses that used the standard course shells developed by the Writing Studies department. Despite my role as the instructor of section 077, my only interactions with my class as a researcher were the initial request to study the content of the forums at the beginning of the semester and when I deployed the pre/post surveys at the beginning and end of the semester. I attempted to limit my influence on the study of section 077 by making the survey responses anonymous and not conducting my analysis of the forum content until the course was completed.

I also had a small role in sections 075 and 076 of WRIT 3562W. I was listed as a “Designer” in section 075 and listed as a second “Instructor” in section 076. Despite being listed as an instructor, I had no contact outside of the pre/post surveys with the

students in section 076, and it was made clear that I had no impact on their coursework or grades. My only other involvement in all three sections of WRIT 3562W was the development of four forums that were used in each section throughout the semester. These four forums were created as activities that focused specifically on discussion and interaction between students (which will be addressed more in Chapter 3). Finally, I conducted three focus groups with students from WRIT 3562W 075. Throughout this process, I emailed individual students inviting them to participate in the focus groups, sent email reminders to each focus group, and conducted the focus groups using Google Hangouts in which I met and talked with the students.

Although I was the instructor in one of the three classes of WRIT 3562W, the fact that I am focused on section 075 as my primary case grants me status as an outside observer. I had contact with the students in section 075 throughout the semester, but they were aware that I had no role as their instructor or the individual grading their work. Also, my role as the instructor of a similar section of WRIT 3562W provided me with a thorough understanding of what was taking place in section 075 throughout the entire semester. The next section provides a general overview of each chapter in this dissertation.

Computer-Mediated Discourse Analysis and Mixed Method Approach

Within the framework of my own study, I am working towards a theoretical replication that demonstrates different results between section 075 that incorporates small group structuring versus sections 076 and 077 that have students engage with the entire class. While there are numerous variables to study within this research, I am using a holistic approach looking specifically at student interaction. The next section provides a

more in-depth look at my areas of analysis, identifying the types of data that will be collected and why they are relevant to my research questions.

In order to conduct a textual analysis of my research, I incorporated a system of computer-mediated discourse analysis (CMDA) described by Susan C. Herring. Herring (2004) describes CMDA as “applying to four domains or levels of language, ranging prototypically from smallest to largest linguistic unit of analysis: 1) structure, 2) meaning, 3) interaction, and 4) social behavior” (p. 340). For the purpose of my research questions, I am more interested in the analysis of text related to interaction and social behavior. Herring goes on to define these two things in more detail describing the interactional level to include “turn-taking, topic development, and other means of negotiating interactive exchanges,” while social behavior accounts for “linguistic expressions of play, conflict, power, and group membership over multiple exchanges (p. 340). Finally, Herring also alludes to a fifth domain of analysis as “participation patterns (as measured by frequency and length of messages posted and responses received in threads or other extended discourse samples” (p. 340).

These three domains of CMDA complement my research on student interaction by looking specifically at the forum posts of different types of activities and assignments in WRIT 3562W. Herring (2004) describes CMDA as a “set of methods from which the research selects those best suited to her data and research questions. In short, CMDA as an approach to researching online behavior provides a methodological toolkit and a set of theoretical lenses through which to make observations and interpret the results of empirical analysis” (p. 341). Studying the level of interaction and the types of social behavior will illustrate whether or not student interaction is present through the

incorporation of small groups and group moderators and potentially how student interaction affects collaborative learning. Likewise, studying the participation patterns throughout the course of the semester will demonstrate whether or not small groups enable a more visible form of student interaction.

In order to conduct my computer mediated discourse analysis, I also incorporated a mixed method approach to identify and collect my data. My research included inductive and deductive reasoning for my coding schemes which are described in more detail below. During my pilot study in the summer of 2012, I observed three areas that I wanted to conduct further analysis on to explore the idea of student interaction in online courses. The three areas included peer review activities, a group project, and the class forums. I selected these three areas because they all incorporated forms of interaction between students and because they were all significant yet different parts of the course. After selecting the three areas I planned to analyze, I began examining the content of my pilot course as well as reviewing literature related to peer reviews, group projects, and class discussion in online environments.

Discourse Analysis Taxonomies

The following paragraphs provide a detailed look at how I will conduct my analysis and a rationale for my coding schemes. My research will separate the CMDA into three distinct categories: a group project assignment that asks students to create a set of instructions, the forums that students are required to complete throughout the semester, and the peer review activities that students are required to complete for five of the major assignments. In each of these categories, I am interested in looking at the differences in level and style of interaction between the class that incorporates small groups and a group

moderator (section 075) and the two classes that do not have a permanent set of small groups (sections 076 and 077).

I am conducting an analysis of the group project separately because it is a major assignment that students have to work together for a grade. It differs from the forums and peer reviews for two reasons: the scope of the assignment and the opportunity for more complex interactions among the students. The group project accounts for 60 points of a student's grade, or 12% of the entire course grade, and takes place over two weeks of the semester. The scope of the group project provides students with an opportunity in which they will work with each other for longer than any other assignment and the outcome of each member's work will affect their individual grades. At the same time, the group project requires a complex set of interactions from the student for tasks such as choosing a topic to create a set of instructions, assigning roles/tasks to group members, conducting usability tests on the instructions, revising the instructions for a final draft, and completing a group reflection. The elements of this assignment provide a unique opportunity to explore whether or not the use of pre-existing small groups function differently than a group of students paired together specifically for this assignment.

Researching the level of student interaction in the discussion forums was essential because that is the primary opportunity for students to interact with each other throughout the course of the semester. As mentioned earlier, I am interested in looking at two different types of forums: task based and discussion based. While the task based forums may not offer the same potential of interaction between students, I am interested in determining whether or not the inclusion of small groups will affect how students approach the forums and conduct the activities. At the same time, the discussion based

forums require the students to complete a task, but also specifically ask for feedback from their fellow students. My purpose in examining the class that employs small groups versus the classes that do not employ small groups is to investigate the quality of feedback from students, and determine whether or not there is a more meaningful type of interaction in the class that incorporates small groups. Finally, I am interested in examining the level of student interaction within peer review activities. Each student should have five opportunities throughout the course of the semester to review another student's work and have her/his own work reviewed. I am interested in whether or not working with the same group of students throughout the course of the semester affects how students peer review each others' work and the potential it could have on a student's writing. This process will be explained in more detail in looking at my coding scheme for the peer reviews. I chose to use three different coding schemes to analyze the peer reviews, class forums, and group projects because each of these parts of the course require different strategies by the student to successfully complete the assigned tasks. Due to this situation, I had to develop specific coding schemes that worked best to analyze student interaction within each type of activity because there was no single coding scheme that worked for all three parts of my analysis. The following sections detail the parameters and methods I used to conduct each analysis.

The Peer Review Assignments and a Coding Scheme for Peer Review Analysis-Related to Content in Chapter Four

The coding scheme for the peer review analysis was constructed based on observations from my pilot study and the work of Cho, Schunn, and Charney in their article, "Commenting on Writing: Typology and Perceived Helpfulness of Comments

from Novice peer Reviewers and Subject Matter Experts.” Cho et al. (2006) developed a six category coding scheme for different peer review comments:

- Directive--“Suggests a specific change particular to the writer’s paper.”
- Nondirective--“Suggests a nonspecific change that would apply to any paper. Comments on a detail without suggesting a change.”
- Praise--“Describes the paper or a portion of the paper positively, including encouraging remarks.”
- Criticism--“Gives a critical or negative evaluation of the paper or a portion of the paper; points out an underdeveloped area. No suggestions for improvement are offered.”
- Summary--“Recapitulates the main points of the paper or a portion of the paper.”
- Off task--“Comments do not fit any of the code categories; the comments are ambiguous, or a rating was given without written comment.” (p. 269)

Cho, Schunn, and Carney were interested in looking at the difference in perceived helpfulness of comments made by students versus an expert (a professor) during peer reviews. Additionally, they structured their data by organizing “reviewers’ comments [...] into feedback segments (idea units), defined as a self-contained message on a single problem” (p. 268).

Based on observations from the peer review comments in my pilot study, I have modified my coding approach in two ways. Rather than separate reviewers’ comments into “feedback segments,” I have broken my data down to sentence level units. I did this because there were instances in which reviewers incorporated more than one category of peer review comments in multiple sentences to discuss a single part of a student’s paper.

Additionally, the inclusion of review comments within the assignments as well as terminal comments made it difficult to organize the data into idea units. The second change I made to my coding scheme was expanding it to include the following categories:

- Clarification/Justification--Any sentence that provides rationalization of previous comment or provides an example to add on to a previous comment.
- Question--Any comment that includes a question asking for more information about a particular passage of a student's writing.
- Encouragement--Any comment that provides a general statement of encouragement, not related to any specific passage of the work being reviewed.

These three categories provided a classification for types of comments that I encountered during my pilot study that were not accounted for in Cho et. al.'s coding scheme.

In addition to my coding scheme, it is necessary to look at the type of instructions included in each peer review activity as well as the guidelines for the course. All three sections of WRIT 3562W included a set of criteria within the syllabus for peer review activities. The syllabi state that each peer review session should utilize the add comments and Track Changes functions within Microsoft Word, include a "300-word summary" at the end of the peer review, notes the importance of being a good editor and doing peer reviews, and then cites resources from the textbook and a website for peer editing tips. Additionally, all three syllabi give very explicit details on what it means to be disrespectful and respectful editors:

Disrespectful editors consider editing to be merely substituting what an author has said with their own ways of saying something. This approach is disrespectful because such editing techniques imply that the editors' writing voices are superior to the original author's voice. Disrespectful editing is a bit like

disparaging someone's taste in restaurants, reading choices, cars, clothes, movies, etc.

Respectful editors point out successful strategies as well as indicate problems. Their editing includes noting problems such as the following:

- The purpose of a document is not clearly presented at the beginning
- The author did not keep the needs, background, preferences, or feelings of the audience in mind
- The document contains errors of fact
- A fact, concept, or argument needs more support, evidence, or explanation (need-to-know information)
- The document contains “nice-to know” information, i.e., information that is correct and perhaps interesting to the author but not critical for the audience
- A sentence is not clear or concise
- The author has made a grammatical or punctuation error

Attention: Note that correcting grammatical or punctuation errors is at the bottom of the list. Being correct is important. However, finding errors is much easier than analyzing writing strategies, so beginning editors often focus on errors. Don't! You will shortchange the members of the editing groups who will be evaluated on far more than the absence of errors.

In addition to these resources, each peer review activity within the Moodle sites provides more specific guidelines tailored to the each type of assignment. For example, the peer review activity for the Unit 4 Assignment: Data Display and Reflective Memo provides suggestions for what to consider while reviewing such as “Graphic is appropriate for the given scenario” or “Graphic is accurate in depicting the given data.” These individually designed guidelines were another reason that I chose to analyze each assignment separately rather than review all five peer review activities at one time.

Finally, I would like to address some of the limitations of my analysis of the peer review activities. First, although the instructions ask for students to write their comments in Microsoft Word, there were two assignments in which several students wrote their peer

review comments within Moodle forums. Assignment 3 and Assignment 8 were assignments that were submitted through the Moodle glossary and through a URL link to a VoiceThread presentation rather than Microsoft Word. Consequently, the students often chose to write their summative comments within a forum post. Second, the data that was collected from the add comments/Track Changes in Microsoft Word left me with some choices to make in how I collected the data. Each peer review conducted through Microsoft Word was attached to a Moodle forum, and then sent back to the student whose writing was reviewed. In addition to the attached Word document, students often left brief messages in the forum including things such as a brief greeting, a quick summary of their statements, and a statement of encouragement. I chose not to include this data in the content I analyzed because it repeated comments and feedback that was also included in the attached document. Third, I decided to only collect comments/feedback rather than analyze the revisions made through Track Changes. I decided to leave out the analysis of Track Changes because these were often smaller types of copy edit styles of revisions, and more importantly it lacked a sense of detailed interaction between the student writing the paper and the student reviewing it. Instead, the revisions made through Track Changes seemed to point out errors or mistakes, but failed to contextualize them in relation to the rest of the paper. The comments/feedback I did collect from peer reviewers were full sentences added within the body of the assignments, the “add a comment” function included in the “Review Tab” of Microsoft Word, and any comments/feedback included at the end of the assignments. The next section analyzes the types of feedback received by all three sections of WRIT 3562W, and examines each assignment separately based on their individual guidelines.

Coding Scheme for Forum Analysis-Used in Chapter Five

The coding scheme that was developed for this chapter utilizes ideas from a chapter by Herring (2004) entitled, “Computer-Mediated Discourse Analysis: An Approach to Researching Online Behavior,” and an article from Dave S. Knowlton (2005) entitled, “A Taxonomy of Learning Through Asynchronous Discussion.” However, the actual coding scheme was derived using a mixed methods approach based on the data collected from the pilot study. The use of mixed methods provided a more accurate way to analyze the specific data that related to specific components of WRIT 3562W. Herring (2004) discusses the idea of computer-mediated discourse analysis (CMDA) and how you can apply it “to four domains or levels of language, ranging prototypically from smallest to largest linguistic unit of analysis: 1) structure, 2) meaning, 3) interaction, and 4) social behavior” (p. 341). The focus of this chapter relies primarily on the idea of interaction, specifically examining the level of interaction between students in online forums and whether or not the inclusion of a small group format affects student interaction. Herring states that “CMDA comprises a qualitative component, e.g., in deciding what counts as an instance of a phenomenon to be coded and counted, especially when the phenomena of interest are semantic rather than syntactic (structural) in nature” (p. 343). In order to develop a strong coding system based on qualitative components, I analyzed literature that had similar goals within their studies. Knowlton’s (2005) work was cited by several scholars and his taxonomy represented a rational starting point while constructing my own coding scheme.

Knowlton’s provides a strong foundation for my analysis of foregrounding student interaction in the classroom. Knowlton (2005) states, “social cognitivism and

constructivism are theoretical frameworks that might support asynchronous discussion; but because the online classroom has been heralded as an environment conducive to promoting a type of student-centered learning (Knowlton 2000) that allows knowledge construction among students (Jonassen, Davidson, Collins, Campbell, & Haag, 1995) this taxonomy is based in a constructivist view of asynchronous discussion” (p. 155). In addition to creating a learning taxonomy for asynchronous discussion, Knowlton illustrates “discussion participants’ likely perceptions of three central tenets of constructivism: (a) the educational utility of the environment, (b) collaboration, and (c) knowledge construction” (p. 155). Knowlton’s taxonomy is split into five categories: passive, developmental, generative, dialogical, and metacognitive.

The first two categories of Knowlton’s (2005) taxonomy, passive and developmental, are exemplified by students who do not see or understand collaboration in terms of collaborative learning. Passive participation represents a kind of lurker in an online environment in the essence that they rarely participate in a visible manner if at all. These types of students may have difficulty with transitioning their status as a learner into a digital environment and have trouble understanding their role being linked with other students in the class. Additionally, they may not demonstrate any actions that facilitate an understanding of collaborative learning. Students who demonstrate developmental characteristics or participation are more visible within the course, but their contributions do not contribute anything to collaborative learning. Instead, developmental contributions tend to focus on the social elements between individuals rather than learning elements--focusing on community rather than social construction.

Generative and dialogical, the next two categories of Knowlton's (2005) taxonomy, represent a type of participation that adheres closer to the ideas of collaborative learning. Generative contributions engage the asynchronous environment as a method for learning, but focus specifically on the relationship with the instructor. Rather than see knowledge as something that is constructed through collaboration with all members of the class, generative participation looks at the instructor as the one who conveys knowledge through prescriptive feedback. Dialogical participation engages the work of other individuals, and recognizes "that the environment itself allows knowledge to be constructed, and they [dialogical participants] view collaboration as a source for knowledge construction" (Knowlton 2005).

The last category that Knowlton (2005) defines is metacognitive participation. Metacognitive participation expands on the ideas of dialogical participation by including an additional focus on reflection. Knowlton claims, "Learning about the self and one's own learning processes is a key purpose of education (Knowlton 2003b) [...] Through this type of monitoring, participants come to understand the environment as a place not only conducive to learning about the content of the discussion, but also to learning about the self". In this instance, metacognitive participation extends beyond the material of the course, and provides students with the means to contextualize learning into their everyday lives. It is important to note that Knowlton's taxonomy is not meant to define the type of student, but rather to define the type of participation. Students may transition back and forth between these categories throughout the semester depending on the activity being completed, the level of comfort with other students, or external factors such as lack of time. Focusing on each contribution from a student using Knowlton's

taxonomy provides a rich coding structure to investigate the level of student interaction with the course.

Knowlton has an effective taxonomy for analyzing asynchronous communication, but he is primarily interested in how students are engaging with the content and goals of the course. My analysis takes a different approach based on how I am interested in examining the level of interaction between students. However, I incorporate aspects of Knowlton's taxonomy while also examining the forum posts within my pilot study to employ a grounded theory approach. Knowlton's categories of "passive" and "dialogical" provided an initial framework for thinking about the different types of responses students may use to respond to each other. While I am not interested in these two concepts as a means of constructing knowledge, I am interested in how these types of responses foster student interaction. As I found in my pilot study, students utilized two kinds of responses in which they offered a statement that did little or nothing to extend a conversation or provided an in-depth response that provided new insight to an existing forum. Additionally, a few students started to incorporate social elements into some of their posts which seemed an attempt to become closer with their classmates. These types of observations led me to develop a coding scheme which is defined more in the next paragraph.

The coding scheme includes the following classification of terms: independent post, question post, minimal reply, question response, reflection/addition, and social elements. An "independent post" constitutes any post that answers a forum prompt, but is not directed at a specific classmate. Instead, the post is solely directed towards the content of the course. A "question posting" is the coding used for brief posts that ask a

question about the course or an assignment. While it constitutes an original posting from an individual, its main objective is not to contribute content to a discussion but ask for clarification on an issue. Meanwhile, a “question response” is any posting that answers a previously stated question. Although it responds to an existing post, its main intent is not to further discussion but provide information to a question about the course. The “minimal reply” coding includes any post that is designed as a response to another user, but fails to offer anything new or significant to the conversation. Instead, it offers something minor that does adds little to the discussion. In opposition to the “minimal reply” is the “reflection/addition” coding that offers a major contribution to an existing discussion. These types of posts may include content such as thoughtful critiques of existing posts, thought provoking questions that add a new dimension to a discussion thread, or a post that relates the discussion to previous content within the course. Finally, there is a code for “social elements”. The “social element” coding was not meant to label entire posts, but was included to denote any form of social interaction embedded in the other types of posts. Including the “social element” coding was meant to depict whether or not groups used any form of communication that was outside the context of the assigned tasks of the forums. An overview of the coding scheme can be found in Table 3.1.

Table 3.1: A Classification of the Coding Categories with Examples

Code	Definition	Example
Independent Post	Any post that answers a forum prompt, but is not directed at a specific classmate.	“Technical communication is a form of communication that uses many different types of media to allow information to be understood by the reader in the most effective way possible.”
Question Post	Any post that asks a question about an assignment or the course in general.	“Does anyone know what we are suppose to include in our posts to this forum?”
Question Reply	Any post that answers a question post.	“This forum requires you to attach an image from a website, and cite it as a source.”
Minimal Reply	Any response that is directed at another student’s post, but offers minimal or no new ideas to the initial post.	“I agree.” “You make a good point about Einstein’s letter, but I disagree with you on its intent.”
Reflection/Addition	Any response that is directed at another student’s post, and includes an in-depth response that furthers the conversation.	“I was curious about the influence of Einstein's letter on the start of World War Two as well! Maybe that's the reason he regretted sending the letter so much afterwards. Do you think that if Einstein hadn't suspected the Nazis of creating the bomb he still would have sent the letter?”
Social Elements	Any post that includes social exchanges that are independent from the class material.	“Have a great Thanksgiving break!”

*Analyzing Interaction and Collaboration in Group Project Data-Analysis Related to
Chapter Six*

The basis for my analysis of the group project began during my pilot test during the summer session of WRIT 3562W in 2012. Throughout the pilot test I was examining the types of exchanges that took place between students during forums, peer reviews, and their group project. The group project presented a unique opportunity in which students had a forum space that they were able to use for an extended period of time, something that was not always possible during the forum discussions. One of the things that I noticed was the style of communication seemed to differ dramatically from traditional face-to-face discussions. After reviewing the dialogue from my course's group project and reading literature about collaborative learning, I developed a coding scheme that relies on the work of Johnson and Johnson (1996) and Curtis and Lawson (2001). Curtis and Lawson built a coding scheme that expanded on the work of Johnson and Johnson. While Curtis and Lawson have built a coding scheme that classifies each posting into one of fifteen codes, I am more interested in the general behavior categories that they discuss throughout their work. The behavior categories are defined through the description of codes included in each category.

Based on the discussions found in my pilot study and Curtis and Lawson's work, I am interested primarily in posts that can be described as planning, contributing, seeking input, reflection/monitoring, and social interaction behavior categories. My interest in "planning" as a behavior category is based on how planning develops within an online space and how many posts are dedicated to the idea of planning in an asynchronous environment. The behavior categories for "contributing" and "seeking input" are

pertinent to my research specifically looking at the idea of back and forth discussion between students. Finally, the “reflection/monitoring” and “social interaction” behavior categories provided a way to examine whether or not students were reflecting on their progress as a unified group as well as engaging in some form of dialogue outside the context of the project. These behavior categories provided different insight into how students engage with each other and how they engage with an online course. Based on my analysis, the predominant codes that appeared for each behavior category are shown below:

- Planning—any post that addressed the need for organizing work or initiating group activities
- Contributing—sharing knowledge (including project updates or revised drafts), providing feedback or helpful tips to other group members
- Seeking Input—asking for help or asking for feedback on a question related to the project
- Reflection/Monitoring—reflecting on the overall process as a group or reflecting on the technological media
- Social Interaction—any type of communication that addressed conversational topics that did not include project related information (Curtis & Lawson, 2001).

I have incorporated three forms of discourse analysis into my study because of the different nature of the discourses I analyzed. I was not able to find one kind of discourse analysis that adequately analyzed student interaction. Instead, I developed a sub-set of research questions as well as specific types of discourse analyses for each analysis chapter that tie into the larger research questions I address in the introduction. While the

computer mediated discourse analysis represents the foundation of my research, I have also included material from focus groups and a pre/post survey to further contextualize my findings. The following section provides an overview of how and why I incorporated focus groups and a pre/post survey within my case study.

Focus Groups and Surveys

In order to triangulate my data, I conducted a pre and post survey as well as three focus groups to reinforce my findings. Additionally, I wanted to contextualize the findings of my discourse analysis based on feedback received from the students involved in the case. The following paragraphs detail how I conducted my surveys and focus groups and provided an overview of what each one entailed. Students were awarded 5 extra credit points for taking both surveys and an additional 5 extra credit points for participating in the focus groups (although section 075 was the only class to participate in the focus groups).

I delivered my first survey during the third week of the semester. This pre-survey was distributed to all three sections of WRIT 3562W that I've included in my study (075, 076, and 077). The pre-survey consisted of two sets of questions: one that asked students about their perceptions of online courses and another set that collected some demographic information. The set that asked students about their perceptions of online courses consisted of nine questions that used a 5 point Likert scale and two open ended questions that asked, "Based on your previous experience with online courses, do you interact a lot with your classmates? If so, how does this affect your learning experience?" and "What one thing would you change to make your previous experience with online courses more

effective?” The demographic questions collected information regarding an individual’s gender and age while also collecting information about how many online/hybrid courses a student has taken in the past. A copy of the survey can be found in Appendix A.

The post-survey was delivered to students during the 15th and final week of the semester. However, the post-survey was altered slightly for section 075 to ask specific questions about the role of small groups and group moderators. The survey distributed to sections 076 and 077 contained the same questions as the pre-survey, but asked them specifically in regards to WRIT 3562W. The post-survey distributed to section 075 contained two additional questions:

- How did the responsibility of being a weekly Group Moderator affect your experience with the course?
- How would you describe the overall quality of your small group? What factors or examples led you to feel this way?

A copy of the post-surveys can be found in Appendix A. The results of the survey provide a different perspective to how the students viewed the course and provide another layer in addition to the discourse analysis.

I conducted three different focus groups on December 5, 6, and the 11th (during the 14th and 15th weeks of the semester) with each one consisting of ten questions. Only students from section 075 of WRIT 3562W were invited to participate in the focus groups. I did not host focus groups for sections 076 and 077 because the questions pertained specifically to the use of small groups and group moderators. The first focus group was conducted using Google Hangouts and consisted of me and four other students. The second and third focus groups were conducted using Google Chat due to

technical difficulties with Google Hangouts. The second and third focus groups consisted of myself and three other students. The full transcripts from these focus groups can be found in Appendix B. The students' responses to the focus group questions provided several insights regarding the effectiveness of small groups and group moderators, and contextualized the idea of student interaction with other factors including the learning management system, the course schedule/structure, and the types of activities that students were asked to complete.

Base Line Results: A Look at Class Perceptions through Pre/Post Surveys

I have included the pre and post survey results from each section of WRIT 3562W to provide a foundation for the rest of my analysis. The questions included in the tables below utilized a 5 point Likert scale based on these classifications: 1=Strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly Agree. The pre-survey provided students with the opportunity to rate their impression of online courses or previous courses that they had taken online, while the post survey provided feedback specific to WRIT 3562W. The purpose of these two surveys were to help gauge specific attributes of online classes from a general standpoint as well as rate WRIT 3562W specifically. The identity of the survey respondents were kept anonymous. I have included the results to these surveys within the chapter because they focus on the perceptions that students have towards the class. The analysis chapters that follow focus primarily on data that students have produced while completing the course (e.g. forum posts, group forums, and peer review comments). The main focus of my study relied on this data to show what was happening in the class rather than exploring how students felt towards the course.

The students perceptions are addressed again within the conclusion to compare the differences within the discourse analyses between all three sections of WRIT 3562W versus how the students perceived the inclusion of small groups and group moderators affected them.

WRIT 3562W, Section 075 Survey Results

As you can see in Table 3.2 below, Section 075 posted higher scores in the post survey for every question except for “My impression of online courses are that they make it easy to allow me to be more effective with my time,” and even this showed a difference of only four hundredths of a point. However, the questions that demonstrate the relationship between online courses to face-to-face courses, online courses and instructors, and online courses and classmates offer more interesting results. In both the pre and post survey, the students posted average scores in which the majority of them either disagreed or were undecided about whether or not online courses were more effective than face-to-face courses. In the three questions that related to how students perceived instructor performance, the instructor of WRIT 3562W received a higher average. Of particular importance was the fact that students perceived the instructor of Section 075 to be easy to interact with and that she managed the course effectively. Finally, students seemed to note that online courses were not the best environment for interacting and working with their classmates. While Section 075 demonstrated a dramatic improvement in scoring related to students working and interacting with each other, the post survey still illustrates that the average scores were closer to 3 (or

undecided). Based on this result, I argue that students still see room for improvement on interaction with their peers.

Table 3.2: The Pre/Post Survey Results for Section 075

Question	Pre-Survey: Previous Courses	Post Survey: WRIT 3562W
My impression of online courses are that they make it easy to interact with my instructors	3.199134199	3.923076923
My impression of online courses are that they make it easy to receive prompt feedback from the instructor	3.396103896	4
My impression of online courses are that they make it easy to work with other students	2.396103896	3.230769231
My impression of online courses are that they make it easy to allow me to be more effective with my time	4.045454545	4
My impression of online courses are that they have allowed me to succeed in my coursework	3.846320346	4.076923077
My impression of online courses are that instructors manage online courses effectively	3.346320346	3.846153846
My impression of online courses are that they are more effective than face-to-face courses	2.4004329	2.846153846
My impression of Moodle is that it is an effective tool for online learning	3.396103896	3.846153846
My impression of online courses are that they encourage student interaction	2.551948052	3.230769231

WRIT 3562W, Section 076 Survey Results

The survey results for Section 076 differ from Section 077 in that the post survey regarding WRIT 3562W does not show an almost complete increase in scores compared to the pre-survey (see Table 3.3). Instead, a lot of the students rated Section 076 lower—specifically in regards to questions related to the instructor. The students averaged a score of over a half point lower for WRIT 3562W in terms of the level of ease to interact with the instructor. Additionally, the students scored the questions “My impression of online courses are that they make it easy to receive prompt feedback from the instructor” and “My impression of online courses are that instructors manage online courses effectively” more than a point and a half lower for WRIT 3562W. While the rest of the data contained very close numbers for the rest of the questions, there was a slight increase of about .3 points for the question “My impression of online courses are that they encourage student interaction.” This may be in part based on the inclusion of peer review activities and a group project.

Table 3.3: The Pre/Post Survey Results for Section 076

Question	Pre-Survey: Previous Courses	Post Survey: WRIT 3562W
My impression of online courses are that they make it easy to interact with my instructors	2.823529412	2.25
My impression of online courses are that they make it easy to receive prompt feedback from the instructor	3.411764706	1.9
My impression of online courses are that they make it easy to work with other students	2.529411765	2.6
My impression of online courses are that they make it	3.823529412	3.8

easy to allow me to be more effective with my time		
My impression of online courses are that they have allowed me to succeed in my coursework	3.294117647	3.1
My impression of online courses are that instructors manage online courses effectively	3.823529412	1.9
My impression of online courses are that they are more effective than face-to-face courses	2.294117647	2.3
My impression of Moodle is that it is an effective tool for online learning	3.411764706	3.25
My impression of online courses are that they encourage student interaction	2.352941176	2.65

WRIT 3562W, Section 077 Survey Results

As seen in Table 3.4 below, the survey results from Section 077 coincide more with Section 075 in that the post survey for WRIT 3562W scored higher in every question except for one. Like Section 075, the question that scored slightly lower was “My impression of online courses are that they make it easy to allow me to be more effective with my time.” The instructor for Section 077 received marks of at least a half point higher for questions that related to interaction with the instructor, prompt feedback from the instructor, and that the instructor manages the online course effectively. Additionally, the two questions that related to students working and encouraging interaction with each other received scores that were at least a half point higher than the pre-survey. One last thing to note regarding the responses to the surveys was that the students gave WRIT 3562W a score of 3.1 in how it related to face-to-face courses. This was the only section in which the students post a score above three that means the

majority of them were undecided or agree that WRIT 3562W was more effective than a face-to-face course.

Table 3.4: The Pre/Post Survey Results for Section 077

Question	Pre-Survey: Previous Courses	Post Survey: WRIT 3562W
My impression of online courses are that they make it easy to interact with my instructors	2.764705882	3.7
My impression of online courses are that they make it easy to receive prompt feedback from the instructor	3.117647059	3.95
My impression of online courses are that they make it easy to work with other students	2.764705882	3.35
My impression of online courses are that they make it easy to allow me to be more effective with my time	3.764705882	3.7
My impression of online courses are that they have allowed me to succeed in my coursework	3.294117647	3.6
My impression of online courses are that instructors manage online courses effectively	3.470588235	4.15
My impression of online courses are that they are more effective than face-to-face courses	2.470588235	3.1
My impression of Moodle is that it is an effective tool for online learning	3.058823529	3.5
My impression of online courses are that they encourage student interaction	2.647058824	3.35

The sample survey size is too small to demonstrate any statistical significant (which can be seen in the significant differences in values between each section for the same questions), but it does provide a contextual background for how students perceive

online courses. Also, all three sets of pre/post surveys demonstrated a relatively high value answer for the course allowing students to be effective with their time and all three sections seemed to view Moodle from a neutral or slightly positive viewpoint. This finding is important to note because students often note how flexibility is an enticing component of online courses which can also affect how they interact with the class. Additionally, the students view Moodle as a learning management system that does not seem to positively or negatively impact their abilities to learn in an online environment. It would be interesting to compare this with other learning management systems so students have a better idea on how digital environments may affect how they interact with online courses. The following chapters analyze the results of my discourse analysis and examine them in relation to the group project designing a set of instructions, the forums used throughout the course, and the peer review activities.

Chapter 4: Student Interaction in Peer Reviews

This chapter examines the effects of incorporating small groups and group moderators into peer review activities in WRIT 3562W: Technical and Professional Writing. Students in WRIT 3562W are required to complete five peer review activities throughout the course of the semester. I analyzed the peer review activities to provide potential responses to the following questions:

- Does incorporating small groups that work together over the course of the semester affect the types of feedback that is given in peer review exercises?
- Do different types of assignments affect the style of feedback given in peer review activities?

I developed these questions to address the specific nature of the peer review activities, but use the results of these questions to tie back into my main research questions of student interaction included in the introduction. I address the results of my study with the peer review activities in relation to my main research questions at the end of the chapter, but provide a more thorough examination of how small groups/group moderators affect student interaction in peer review activities in the conclusion. Although peer review activities are structured more as one way interaction versus continual interaction, it remains an important form of interaction between students throughout the semester. Also, the ability to critique writing is an important skill to learn in becoming a better writer. The remainder of this chapter will look at the different approaches to peer review activities between Sections 075, 076, and 077.

About the Peer Review Activities for WRIT 3562W

There are five assignments throughout the semester that students are required to complete peer reviews activities: Complaint Letters and Reflective Memo, Technical Definition and Reflective Memo, Data Display and Reflective Memo, Analytical Report, and an Oral Report and PowerPoint Presentation. Below is a brief overview on these five assignments:

- Complaint Letters and Reflective Memo: Students write an initial complaint letter and a hypothetical response letter based on format and structure guidelines discussed in their textbook. They are also required to compose a reflective memo that analyzes the rhetorical choices they made in each of their letters.
- Technical Definition and Reflective Memo: Students write an extended technical definition on a term of their choice. Afterwards, they write a reflective memo analyzing their rhetorical choices.
- Data Display and Reflective Memo: Students build a data display graphic and textual description based on the collection of data from one of four given scenarios in the assignment prompt. Students also write a reflective memo justifying the choices they made with their graphic and textual description.
- Analytical Report: The analytical report is the major assignment of the course. Students compose an in-depth recommendation report based on a topic that they proposed at the beginning of the semester, and that incorporates several components from previous assignments and readings from the textbook.
- Oral Presentation and PowerPoint: The oral presentation is the final assignment of the course and a follow-up to the analytical report. Students are required to pull

the main ideas of their analytical report and present them orally in a digital environment.

Based on the brief descriptions of these assignments, it is apparent that they cover a wide variety of genres and contain different levels of scope in terms of the length and skills required to complete them. Due to the differences between these assignments, I have structured my analysis to look at each assignment between the three sections of WRIT 3562W separately. While I initially wanted to examine a more overall picture and the progression of peer review activities over the course of the semester, I felt that the assignments may require different styles of peer reviewing which may have affected the perception of how the peer reviews evolved. The next section of this chapter looks at the different group structures employed in sections 075, 076, and 077 of WRIT 3562W.

About the Classes and Their Peer Review Groups

Each class had a different structure in terms of how the peer review groups were set up. Section 075 utilized the same small groups that had been used for the class forums and group assignment for the peer review exercises. The instructor for Section 076 used the same four person groups for each peer editing activity and the group instruction assignment, but the students were not separated into groups for the class forums. I took a different approach in Section 077 and placed students into different groups for the peer review activities and the group instruction assignment, and did not incorporate groups for the class forums. However, I did use the same peer review groups for the analytical report and oral report/PowerPoint presentation assignment. My rationale for using the same peer review groups for the last two assignments was that the

students would have read or had access to each other's analytical reports, which may have been helpful in giving feedback on what should be included in the oral report--an assignment designed to summarize the findings of the analytical report. Although each section of WRIT 3562W comprises a small sample size, I believe the analysis of each peer review activity offers insight into how the structuring of peer review groups may affect the review process. The process of my analysis for the peer review activities can be reviewed in Chapter Three.

Peer Reviews of "Unit 2 Assignment: Complaint Letters and Reflective Memo"

The first peer review that students needed to complete for WRIT 3562W was for the complaint letter assignment. This assignment was to be uploaded and completed using Microsoft Word which provided students with access to Word's Track Changes and Add Comment features. The basis for each peer review requires students to complete a 300 word review of another student's writing, but the focus of the criteria is related to the grading rubric of the assignment. For the complaint letter assignment, the specific elements of the assignment to look for are as follows:

- All letters use proper format in terms of return address, inside address, greeting, message, closing with signature, and spacing, as specified on p. 118 of our text.
- Letters have strong organization, with clear subject, purpose, address of audience, and correct use of format.
- Memo to your instructor fully identifies and explains the rhetorical situation of each letter such as how audience needs vary for each writer.
- Letters do not have grammatical or mechanical errors.

There are a couple of items to note while reviewing how each class peer reviewed this assignment. First, this was the first assignment of the course that had the students peer review each other's work. Second, the complaint letter assignment required students to write more content (in terms of length) than any other assignment except for the

analytical report. The ways in which the classes differed in how they conducted their peer reviews can be seen in Table 4.1 below.

Table 4.1: An overview of Assignment 2 on the average number of words and the percentage of the different types of peer review comments at the sentence level for all three sections of WRIT 3562W

Section	Word Count	Directive	Non-Directive	Praise	Criticism	Summary	Justification/ Explanation	Question	Encouragement	Off-Task
075	485.7	24.53	16.93	22.13	.27	12.27	18.13	3.87	.80	1.07
076	321.8	31.45	8.03	21.91	0	17.35	15.84	2.39	.22	2.82
077	431.9	29.15	6.18	18.90	0	21.73	19.96	2.83	0	1.24

As you can see in Table 4.1, the first difference between the classes is in regards to the average word count for each peer review. On average, Section 075 posted over 50 words per review more than Section 077 and over 160 words more than Section 076.

Based on this point, it is possible to assume that students in Section 075 were able to provide more comments or a little more detail in their comments. While the guidelines of the assignment asked for 300 words, a lot of students seemed to go over because they included comments throughout the complaint and response letters and then included 300 words of terminal comments at the end of their reviews. While directive type comments held the majority of all three sections of WRIT 3562W, Section 075 averaged more non-directive comments per peer review than the other two sections. At the same time,

Section 077 averaged more comments summarizing a student's writing per peer review compared to the other two sections. Praise also accounted for several comments on average from each section of WRIT 3562W, a finding that is consistent with previous work conducted by Cho, Schunn, and Charney (2006) as well as Patchan, Charney, and Schunn (2009), while criticism was almost completely absent. Although there were no major differences across all the categories between the three sections, it is interesting to see the types of comments that students are making within each other's papers.

Contextualizing the students comments within the peer reviews versus the guidelines of the peer review assignment also illustrate some interesting findings. Two of the components included in the instructions asked students to look for formatting issues and grammar/mechanics issues. After reading all three classes peer reviews, the vast majority of directive comments were focused on formatting and small items such as awkward/confusing sentences or word choice. However, the comments directed towards the more global issues (e.g., "strong organization, with clear subject, purpose, address of audience") tended to be more summary style comments. The one exception that I often found was comments relating to "purpose," specifically asking what the purpose of the complaint/response letter was or that it should be stated earlier within a letter. The last component included in the peer review instructions regarding the reflective memo had little bearing in any of the peer reviews because most students chose to not include this portion of the assignment until submitting the final draft. While I do not believe the inclusion of small groups had any major impact on the types of peer comments made for assignment two, I do believe the type of assignment affected how the peer reviews were conducted.

Having the assignments submitted through Microsoft Word allowed students to make several comments and changes within the bodies of the complaint and response letters. One consequence of this setup seemed to be that students focused more on local level editing including grammar/mechanics and sentence level revisions. Another factor that may have influenced the types of peer reviews for assignment two was that this was the first peer review in the WRIT 3562W course. Students may have backed off commenting on other student's ideas, and instead focused more on copy editing. Finally, the genre of complaint letters may be something that the students were more familiar with which may have allowed them to write drafts that did not possess as many significant issues as a genre of writing that they are not as familiar with writing. The next assignment changed the way in which students submitted their work and may represent a genre of writing that students were not as familiar with compared to complaint letters.

Peer Reviews of "Unit 3 Assignment: Technical Definition in Moodle Glossary"

The assignment for Unit 3 was unique compared to the rest of the assignments in the course for a couple of different reasons. First, it asked students to compose a technical definition through a wiki imbedded into the Moodle LMS. This was the only assignment, with the exception of a few group projects, that was completed outside of the Microsoft Office suite. Second, by using a wiki, each student's work was more accessible to the rest of the class. Third, it changed the method in which a lot of students conducted their peer reviews. The peer review prompt asks students to post their reviews through a forum post in which they answer the following questions:

- Does definition explain the subject, purpose, readers, and context of use of the term?
- Does the definition make use of techniques such as examples, analogies, or similarities and differences?

- Does the definition avoid plagiarism of internet sources, and properly cite any direct quotes or paraphrases? Does the author include an external bibliography if needed?
- Does the definition clearly communicate to nonexpert readers?
- Is the definition error free and reflect revision through Editing Levels 1-4 as specified in Chapter 20?

While the majority of students ended up posting their peer reviews as a reply within a student’s forum post, there were still some students that copied their technical definitions into a Word document so their peer review partners could use the “Track Changes” and “Add Comment” functions. The types of comments from all three sections can be seen in Table 4.2.

Table 4.2: An overview of Assignment 3 on the average number of words and the percentage of peer review comment types at the sentence level for all three sections of WRIT 3562W

Section	Word Count	Directive	Non-Directive	Praise	Criticism	Summary	Justification/ Explanation	Question	Encouragement	Off-Task
075	334.3	26.35	8.64	17.28	0	25.05	15.77	6.91	0	.43
076	234.2	17.70	7.45	17.08	0	36.96	20.19	.62	0	0
077	324.1	24.80	8.09	16.17	0	24.53	19.41	3.77	0	3.23

As you can see in the Table 4.2, Sections 075 and 077 posted roughly a hundred more words per review than Section 076. It is also important to note that the average amount of words per review for Section 076 did not meet the 300 word minimum requirement of the assignment. However, a more important distinction within the peer

reviews for this assignment was the types of peer review comments that were made.

While the complaint letter had a clear majority in directive comments, the reviews for the technical definitions had more of an even balance between directive and summary style comments. The increase in the amount of summary comments seemed to be due to students commenting within forum posts and the instructions for the peer review. The questions for Assignment 3 consisted of yes/no style questions, and several students who wrote their reviews within a forum rather than Microsoft Word tended to answer yes/no to the questions followed by brief summaries of how a paper followed the guidelines of the assignment. Section 076 used summary based and justification/explanation comments more than the other two sections. The amount of praise based comments remained relatively consistent between all three sections compared to the complaint letter assignment, and criticism/question/off-task type comments were lower than the rest of the categories.

Another interesting component of the peer reviews for the technical definition assignment was how the review comments focused more on global type revisions rather than proofreading/copy editing corrections. This occurrence also seemed tied to the fact that more students were posting their review comments within Moodle forums rather than Microsoft Word documents. Without being able to comment in the actual document, students seemed more likely to address global content issues that affect the overall quality of a student's work. Several students within all three sections of WRIT 3562W also commented on the technical nature of the terms and how they were often unfamiliar with the term before the peer review activity. This level of unfamiliarity provided students with viewing the technical definitions from a non-expert perspective and

allowed them to review each technical definition's effectiveness based on how well it communicated to them as a non-expert.

The technical definition was another assignment that did not show any dramatic differences between Section 075 that used small groups and group moderators and the other two sections. The peer reviews seemed to be more affected by the change in assignment as well as the format in how a lot of students reviewed their peer review partner's work. The next assignment provides another genre that does not conform to the traditional student essay that focuses on text.

Peer Reviews of "Unit 4 Assignment: Data Display and Reflective Memo"

The assignment for Unit 4 transitioned back to a Microsoft Word environment, but also required students to use some additional form of software to create a graphic that could be copied back into a Word document. Several students used Microsoft Excel to develop their graphics while other students used websites that allowed them to plug in their data which formed graphics for them. In addition to being required to create a graphic based on one of four scenarios, the students also had to choose the type of graphic that best displayed the scenario and provide a textual definition that reinforce and contextualized the graphic. The specific guidelines listed in the peer review prompt can be seen below:

- Graphic is appropriate for the given scenario.
- Graphic reflects the data to "tell a simple story" and to "reinforce the text."
- Graphic is accurate in depicting the given data.
- Graphic shows an appropriate title and informative labels for readers to locate information.
- Graphic shows good use of design elements for color, lines, shading; not over-decorated.

- Description includes information to help readers interpret the graph and understand the results you intended. Includes a proper title and any added information to see trends and results.
- Reflective Memo assesses the type of graphic you chose for your scenario, the guidelines you used for creating the display, and the design principles you used.
- Reflective Memo explains how your graphic “tells a story” and “reinforces the text” along with strengths and limitations of your graphic choice.

While these guidelines do not directly ask yes/no questions from the students, they are still structured in a manner that it is easy for students to respond with a yes/no type response that summarizes whether they meet these criteria. The types of peer review comments that each section of WRIT 3562W made can be seen in Table 4.3.

Table 4.3: An overview of Assignment 4 on the average number of words and the percentage of peer review comment types at the sentence level for all three sections of WRIT 3562W

Section	Word Count	Directive	Non-Directive	Praise	Criticism	Summary	Justification/ Explanation	Question	Encouragement	Off-Task
075	273.3	25.42	4.75	17.81	1.90	15.20	23.04	9.50	.95	1.43
076	300.3	27.27	4.88	15.08	.22	28.82	17.07	5.54	.67	.44
077	304	22.94	4.64	15.72	0	30.67	20.10	3.09	1.29	1.55

One difference that can be seen right away is the average number of words incorporated into each section’s peer reviews. The data display assignment in the first one in which Section 075 posted on average the fewest amount of words per review. Also, the number of words per review for each section hovers around the minimum amount of 300 word responses for the assignment. There seemed to be two main reasons

for the lower amount of words used in the reviews. The first reason is that while the assignment requires a reflective memo, the vast majority of students did not include a memo within their drafts. Without the reflective memos, there was significantly less content for students to review. The second reason is that most students seemed to direct the majority of their comments towards the graphics rather than the textual descriptions. In doing so, the students seemed to focus more on specific design choices related to the graphic while commenting less on global content issues within the graphics or textual descriptions.

Each section of WRIT 3562W used roughly a quarter of their peer reviews to make directed comments on each other's drafts. Several of these directed comments involved discussing the type of graph that was used, the titles for labels and axes, the graphics legends, the color/appearance of the graphics, etc. Meanwhile, Sections 076 and 077 contained almost twice as many summary type comments compared to Section 075. Section 075 averaged a slightly higher percentage in justification/explanation type comments and almost twice as many question based comments than the other two sections. Similar to the two previous assignments, there was a relatively high percentage of praise type comments for all three sections, and a much smaller percentage of comments that demonstrated non-directive, criticism, question, encouragement, and off-task type comments.

Like the first two assignments, there were no significant differences between the three sections in how they completed the peer review activity. Instead, it was the guidelines of the assignment that seemed to have much more effect on what kinds of comments were made. The graphics received more focus than the textual descriptions,

and one potential reason for this fact is that the majority of the guidelines for the peer review prompt focus more towards the graphic. There was only one bullet point that directed students towards writing about the textual description. One additional observation was the number of comments that students directed towards the style of the data displays. Comments directed towards the idea of style were much more prevalent in this assignment compared to the complaint letters and technical definitions. Perhaps the idea of style seemed more overt with the inclusion of graphics, but students from all three sections offered more personal feedback on how the appearance of the graphics worked in relation to the purpose of the data displays. While the first three assignments that were peer reviewed focused more on a specific element of technical writing, the Unit 7 assignment (Analytical Reports) was an assignment that built off the material learned throughout the course of the semester.

Peer Reviews of “Unit 7 Assignment: Analytical Report”

The analytical report was the biggest assignment of the course both in terms of length and the number of points towards a student’s final grade. The assignment required students to build on earlier assignments (an email proposal assignment and an activity report) as well as incorporate the skills learned throughout the rest of the course to create an in-depth report on a topic of the student’s choosing. As a result, this assignment had a lot more criteria to review under the peer review forum prompt:

- Front matter is included such as a letter of transmittal, executive summary, and table of contents.
- Introduction states the topic, the purpose, the importance of the topic, background information, overall conclusion, and a preview/forecast of the remainder of the report.
- Methodology describes how research was conducted, including an electronic source, a print source, and an empirical source (p. 385 - p. 398). Specifics, such

as your Gantt chart, interview questions, or a survey can be provided in Appendices and referred to in the text of this section.

- Results summarize the major findings of the study. Key points from electronic and print sources should be shared that shed light on the project. Findings from surveys and/or interviews should be shared.
- Discussion reviews the results, explaining what these results demonstrate, how they relate to your research question(s) and/or how they prove a hypothesis.
- The report includes at least two visuals such as a table, chart, or graph to illustrate findings.
- Back matter is included, such as bibliography of sources and any other relevant materials.
- The report uses appropriate style and writes directly to the audience. Clear and concise language is used. Sentences reflect correct mechanics and grammar.
- The report reflects good page design including clear Table of Contents, heading structure, and page numbers.

These criteria demonstrate the extensive parameters of the assignment, and give an overview of the types of review comments that one would expect to see in the peer reviews. Although the criteria are not phrased as yes/no questions, the way in which they are presented seem to infer on mentioning whether or not these elements are present within the student's analytical reports. Table 4.4 provides a breakdown on the types of comments that were used within each section of WRIT 3562W.

Table 4.4: An overview of Assignment 7 on the average number of words and the percentage of peer review comment types at the sentence level for all three sections of WRIT 3562W

Section	Word Count	Directive	Non-Directive	Praise	Criticism	Summary	Justification/ Explanation	Question	Encouragement	Off-Task
075	583.5	35.89	5.86	12.35	1.06	9.90	21.62	10.97	1.17	1.17
076	303.2	33.66	6.34	13.47	0	16.24	16.04	11.09	1.89	1.98
077	528.0	33.38	6.62	11.62	.14	16.22	18.65	11.08	.95	1.35

Table 4.4 shows that the average number of words between the sections varies in that Sections 075 and 077 have on average more than 200 words more than the reviews of Section 076. One of the reasons for the large difference in words used per review is because there were five students in Section 076 that did not complete peer reviews. The fact that Section 075 and 077 contained more than 200 words more than the required minimum of the assignment is due to the fact that there was much more material to critique in this assignment compared to every other assignment of the course. In fact, there were multiple students whose posts exceeded a 1000 words in length. Although the average number of words differed between the sections, the percentage of types of comments remained extremely similar to each other between all three sections. The only small difference occurred where Section 075 included just over 6% less summary type comments while posting slightly more justification/explanation type comments.

Otherwise, there was no difference greater than 2.5% between any type of peer review comment, with many of the different types of comments being within 1% of each other between all three sections of WRIT 3562W.

The analysis of the peer reviews for the analytical report was unique because the percentage of comment types was so similar between all three classes. This point is even more interesting based on the various components of the assignment that students could review and provide feedback on. The use of small groups and group moderators did not seem to have any effect on the feedback provided for this assignment. Since this assignment was completed with Microsoft Word (with a few students submitting their drafts as PDFs), the reviews took place using the Track Changes and Add Comment tools embedded in the program. I did not observe any specific trends in regards to the components of the assignment that students directed their feedback. Instead, the students from all three sections seemed to focus on different areas of the analytical report. The length and scope of the project provided students with a variety of technical writing genres to comment on, and did not seem to affect the type of feedback that students gave to each other. Following the analytical report was one last assignment, a kind of extension of the analytical report in which the students had to condense the material of their reports to a roughly five minute presentation. Many students from all three sections decided to peer review the same student for both the analytical report and oral presentation. An overview of that peer review process is analyzed in the next section.

Peer Reviews of “Unit 8 Assignment: Oral Presentation and PowerPoint”

The last assignment of the semester required students to present the main ideas of their analytical report in a digital presentation that included software such as VoiceThread or Screencast-O-Matic. The oral presentation assignment was similar to the technical definition assignment in that students needed to complete it outside of the Microsoft Word environment. Instead, the majority of students used PowerPoint, while a few used other options such as Prezi or a different screencasting software. Since the assignment was completed outside of Word, most students wrote their peer reviews within a Moodle forum. The criteria that were included in the peer review prompt included the following components:

- presentation provides an overall concise summary of your research while providing essential details and sufficient information.
- slides include message titles, not topic titles.
- verbal lists make use of parallel construction to maximize clarity
- visual design is uncluttered and readable, and it uses visuals to enhance the presentation
- oral element is easy to hear and synchronized with slides.

These criteria are similar to the other peer review exercises in that they list the components that need to be present and will be graded for this particular assignment.

Since the focus of the presentations were to convey the main points of the analytical report in a condensed form, the majority of the criteria focus more on aspects of style rather than content. A summary of the peer review comment types can be viewed in Table 4.5.

Table 4.5: An overview of Assignment 8 on the average number of words and the percentage of peer review comment types at the sentence level for all three sections of WRIT 3562W

Section	Word Count	Directive	Non-Directive	Praise	Criticism	Summary	Justification/ Explanation	Question	Encouragement	Off-Task
075	256.8	21.97	8.67	17.05	0	17.92	24.57	3.47	2.60	3.76
076	152.6	20.63	2.69	13.45	0	41.70	15.70	.45	2.24	3.14
077	301.7	23.17	7.01	13.41	0	28.05	21.95	.91	1.83	3.66

The oral presentation assignment contained a much lower average amount of words per peer review among all three sections of WRIT 3562W. The main reason for the lack of feedback may be due to the fact that the oral presentation was due a week after the analytical report giving students a short amount of time to complete the assignment.

One consequence of this point is that the majority of students uploaded drafts of their oral presentation that did not include an oral component. Without the oral presentation, students were left with a series of slides with brief overviews that were supposed to be contextualized more through the presentation. Also, Section 076 had the lowest average of words per review because eight students (1/3 of the class) failed to complete a peer review for this assignment. All three sections had roughly the same percentage of directed peer review type comments and no comments of directed criticism, but varied on most of the remaining types of peer review comments. The biggest difference appeared in summary based comments which accounted for over 40% of Section 076's comments,

a percentage that was more than 10% higher than Section 077 and almost 25% higher than Section 075. This increase in summary based comments also accounts for why Section 076 had lower percentages than the other two sections in non-directive and justification/explanation comments. The oral presentation also contained over 3% of off-task comments for all three sections, a figure that was higher on average than any other peer review. This may be related to the low average word counts and an attempt for students to meet the word counts by incorporating “fillers”.

Types of Comments Used in Peer Reviews

There were a variety of comments used throughout the course of all five peer reviews, but the majority of students relied primarily on four different kinds: directive, praise, summary, and justification/explanation. Knowing the types of comments that students are making in each others’ peer reviews may provide instructors with a framework to teach students to become better reviewers. If the four categories listed above are the most common types of revision comments, instructors may be able to do more to define these types of comments at the beginning of the semester and contextualize them the peer review instructions included in the class syllabus.

Another point to consider after viewing the types of comments made throughout the peer reviews are whether or not the types of revision comments that are not being used as frequently (non-directive, criticism, question, encouragement, off-task) are important to a student’s writing. If these types of comments are important, how can instructors employ strategies for students to use these comments more? More specifically, the non-directive and question type comments could potentially be more

important for peer reviews and could help more with discussing global level content within a student's draft. The directive type comments are important too, but a lot of students use this type of comment to focus on local level editing and pointing out grammatical or mechanical issues. Paying attention to the types of comments being made within peer reviews is important because it demonstrates the kinds of things students are focusing on in their peer reviews and it illustrates the specific elements of writing that students deem important.

The Effect of Small Groups and Group Moderators on Peer Reviews

One of the questions I posed at the beginning of this chapter asked whether or not incorporating small groups that work together over the course of the semester will affect the types of feedback that is given in peer review exercises. Based on the discourse analysis of the peer reviews, the inclusion of small groups and group moderators does not demonstrate any major differences in how students peer review each others' work. In looking at all five assignments, the average number of words between the three sections varied from assignment to assignment, and there were no key trends among a particular section throughout all five assignments. While small groups and group moderators did not affect the types of comments used in peer reviews, it did have an effect on how students in Section 075 perceived the effectiveness of the peer review activities. Multiple students noted in the post survey and focus groups that it was interesting to get to know one or two students style of writing throughout the course of the semester. Some of the benefits of working with the same students included getting to know the specific

strengths/weaknesses of a writer that were present throughout all five assignments as well as seeing a student's writing progress throughout the semester.

Although several seemed to enjoy the level of familiarity of peer reviewing the same students over the course of the semester, there were other students who noted certain issues with the peer review activities. One idea that was mentioned by multiple students was the lack of trust in the feedback they were receiving from their peer review partners. Multiple students discussed the fact that they could not trust a classmate's comments because they did not know whether the student was a good writer. Additionally, a few students seemed to only value their writing based on the instructor's feedback. This perspective seems problematic, especially when thinking about how a student will perceive the value or quality of writing once they leave academia. Reading the responses of how students perceive the peer reviewing exercises shows that there may be a need to discuss the idea of writing and how it is valued outside of academic environments. While small groups and group moderators may not affect the types of comments made in peer reviews, perhaps future studies can employ small groups and group moderators to be optimized to help change the way students perceive the value of writing.

The Type of Assignment and Its Effect on Peer Reviews

The second question I posed at the beginning of the chapter asked whether or not different types of assignments affect the style of feedback given in peer review activities. The type of assignment and the format in which it was composed by the students had a much more dramatic effect on the types of peer review comments that were being made

compared to the use of small groups and group moderators. The assignments that focused heavily on text and were completed using Microsoft Word (the complaint letters and the analytical report) had a lot more directive comments that dealt with local revision issues and copy editing. However, the assignments completed outside of Microsoft Word (the technical definition and oral presentation) included more summative and directive comments that did more to discuss the “current state” of the assignment as well as more global type comments. This occurrence seemed directly related to the fact that students could not attach their comments to specific passages of a draft which then led to comments that discussed more overarching ideas and themes. Finally, the data display assignment contained more comments that addressed the concepts of style related to the graphics students used within their work.

Based on these observations, students demonstrate how they adapt their style of peer reviewing based on the structure and limitations of specific assignments. I believe that instructors can use this finding to their advantage based on what kind of peer review comments they want to see from their students. For example, if instructors want to see more summative or global level comments, they could have students submit their work as a PDF (a format in which most students do not have the necessary software to comment in the actual document). Modifying the format of assignments, as well as explicit instructions on how peer reviews should be carried out, may help direct students towards achieving a more productive style of peer reviewing which may also benefit the ways in which they see and understand writing.

Thinking about the results of this analysis chapter in relation to my main research questions in the introduction shows that the inclusion of small groups and group

moderators do not have any significant affect on the role of student interaction in WRIT 3562W. The group moderators may have helped with organizing the peer review activities, but the comparison between all three sections of WRIT 3562W showed similar types of comments throughout the assignments, and there were no major trends that could be seen throughout the progression of all five peer review activities. In opposition to the role of small groups and group moderators, the types of design choices an instructor makes regarding the peer review activities seems to have a more direct affect on the level of student interaction. The biggest choice that affected how students completed their peer reviews seemed to be based on whether or not they completed the activity in Microsoft Word or through another medium. Peer reviews completed in Microsoft Word typically saw a higher average amount of words used among all three sections and seemed to have a small effect on the type of comments included in the peer reviews—primarily affecting the amount of directive type comments. Instructors should be aware of how the medium affects the peer review of students, and adjust based on the type of reviews they think will be most effective.

The next chapter looks at the idea of student interaction from the framework of the class forums that students are required to complete throughout the course of the semester. The class forums represent a different style of interaction because it provides students with the opportunity to discuss ideas related to a specific unit of the course or a particular passage of the text. The class forums also provide students with an opportunity to engage back and forth with each other, something that is not as common with the peer review activities.

Chapter 5: Student Interaction in Class Forums

Chapter 5 examines the level of student interaction throughout the class forums within WRIT 3562W: Technical and Professional Writing. While Chapter 4 examined the types of comments made by students in peer reviews, Chapter 5 investigates the role of student interaction in class forums by looking at the type of posts that students contribute to the forums. The class forums cover a variety of topics related to the goals of the course so it is important to examine how students participate in these spaces. The analysis of the class forums is meant to answer the following questions:

- Are there any noticeable differences between a class that incorporates pre-existing small groups/group moderators versus classes that use a single group to hold class forums?
- Does the role of task-based versus discussion based forums affect the level of student interaction?

These two questions are used specifically to illustrate whether or not small groups and group moderators affect student interaction in class forums. The answers to this sub-set of research questions tie back into my main research questions in the introduction, and provide specific findings regarding class forums that feed into my larger idea of if small groups and group moderators affect student interaction as well as what course design choices lead to positive student interaction. The results of this chapter illustrate that there are key differences between a class that uses small groups and group moderators versus classes that communicate as one big group in class forums, and this provides evidence towards one of my main research questions that small groups/group moderators affect student interaction in online writing courses. My results also explore the effects of one

specific course design choice, task based versus discussion based forums, and contextualizes it in relation to my second main research question of what course design choices affect student interaction. The remainder of this chapter will spend time explaining the role of the forum discussions in WRIT 3562W, analyze the types of interaction between Sections 075, 076, and 077; and contextualize how the class forums relate to the goals of the course. I found that the forum discussions in Section 075 demonstrated higher levels of interaction among the students, and the use of small groups and group moderators did affect the level of student interaction within this portion of the course.

About Discussion Forums in WRIT 3562W

Over the course of the semester, each student is required to contribute to the discussion in 14 forums (excluding forums dedicated to peer reviews, the forum for group discussion on Assignment 5, and “Forum 8.2: Final Presentations” which has students to post URLs to their work) on a variety of topics related to each Unit. The forums account for 50 points in the course which translates into 10% of each student’s final grade. For the purpose of this study, I have classified the types of forums into two broad categories: task based forums and discussion based forums. Task based forums include any forum that provides students with a task/prompt to complete, but does not encourage discussion or collaboration between students. Discussion based forums also include prompts assigned to students, but encourages discussions and collaboration between students. The distinction between these two types of forums is critical to this study because while collaboration is welcome between students throughout the course, some forums are

designed primarily for students to work independently from each other. An example of a task based forum can be seen below in Figure 5.1.

Figure 5.1: Instructions for Forum 4.1 demonstrating a Task Based Forum

Complete Exercise 2 on p. 516 in the class text: Use the principles in Chapter 18 to sketch a new layout for **one page** of Figure A on page 519.

You can begin by sketching a better design for the document, then use lines, shapes, text boxes, etc. in Word (or a software program of your choice) to create an new and improved layout for a page of the Case Study document. Include a short description in which you explain the principles you used from Chapter 18 to improve the design.

[Link here for examples of page layout grids.](#)

When you are finished with your layout grid, save it as a Word doc with your initials and post it as an attachment to your forum post.

As you can see in Forum 4.1, students are required to sketch out a new design from an existing figure in their textbook. This activity represents a task based forum in that it requires a student to complete a prompt pulled from their textbook, but does not require or encourage any interaction with their classmates. However, a discussion based forum encourages student collaboration which can be seen in Figure 5.2.

Figure 5.2: Instructions from Forum 6.3 demonstrating a Discussion Based Forum

For this forum, you will share information about your topic for your analytical report and create a dialogue with classmates that includes any comments/questions/concerns.

To begin, answer these questions regarding your project:

Subject: What exactly will the report cover, and what are the boundaries of its subject (i.e., is it feasible to do a project that will attempt to solve national healthcare in a 10-15 page paper in the next couple of weeks?)? What information and facts do readers need to know to make a decision?

Purpose: What should the report accomplish, and what do the readers expect it to accomplish? What is its main goal or objective?

Readers: Who are the primary readers (action takers), secondary readers (advisors), and tertiary readers (evaluator)? Who are the gatekeeper readers (supervisors) for this report?

Context of Use: Where, when and how will the report be used? What are the economic, political, and ethical factors that will influence the writing of the report and how readers will interpret it?

What questions or concerns do you have with your topic? This is a perfect opportunity to get feedback from your classmates regarding your project that may help you. Remember that this should be a conversation rather than an independent post.

This display of Forum 6.3 demonstrates how interaction between students is encouraged within the prompt: “For this forum, you will share information about your topic for your analytical report and create a dialogue with classmates that includes any comments/questions/concerns [...] This is a perfect opportunity to get feedback from your classmates regarding your project that may help you. Remember that this should be a conversation rather than an independent post.” Although the discussion based forum instructions do not explicitly require interaction with classmates, it is encouraged within the instructions and the forum is designed to function through student interaction.

Intent of Small Groups and Group Moderators

The purpose of this chapter is to explore whether or not the inclusion of small groups and group moderators made any significant changes to how students interact with

each other in the class forums. My initial thought was that the inclusion of small groups and group moderators would benefit student to student interaction in three ways: the group moderator would help keep a discussion progressing forward, the use of small groups would increase the presence of students within the classroom, and the use of small groups would provide more balanced discussions among students. This section provides an overview of these three ideas to contextualize them in relation to the analysis conducted on Sections 075, 076, and 077.

Section 075 included weekly rotating group moderators whose primary purpose was to take charge of their groups, and support the assigned activities within any given week. One of the problems that I found while teaching previous online sections of WRIT 3562W was that forum discussions failed to offer any real sense of interaction and collaboration between students. Instead, forum posts addressed the prompts, but contained little if any discussion among students. I created the role of the group moderator within WRIT 3562W as an attempt to begin discussions sooner, ask critical questions from the group members, and link some of the ideas included among different posts. I thought that implementing the group moderator role would lead to other members within the group to participate more once a discussion became more in-depth with the material.

My reasons for using small groups rather than having one big group were to increase presence and balance within the classroom—an effect that would potentially provide students with more opportunities to engage back and forth with each other. Another observation that I had from previously teaching WRIT 3562W was that students failed to make much of an effort to interact with each other in forums and that many

students seemed content posting minimal responses. Based on some existing scholarship, a significant reason that students fail to interact with each other is because the amount of forum posts can be overwhelming and difficult to follow (Wise et al., 2011). By creating small groups that were isolated from the rest of the class, students were presented with situations in which they could follow forum discussions easier, and be encouraged to contribute more based on how their posts were more visible within a group of four students versus an entire class. Additionally, I expected more balanced discussions within smaller groups. Any type of discussion with an entire online class that encouraged or required student interaction led to forums in which a couple of students (usually those that posted to the forum first) received the majority of replies. However, the students that posted later than their classmates often failed to have any feedback to their posts. Small groups seemed like an option to create more balanced discussions due to the fact that the students in each group had fewer classmates to respond to in a discussion. Referring back to the idea of presence, I thought that each student receiving more feedback in small groups would also lead to more back and forth interaction in the discussion forums.

Overview of the Discourse Analysis

The discourse analysis which follows provides an in-depth look at each small group from Section 075 followed by a summative look at all three sections. The overview of each small group will provide two tables that show the level of interaction between discussion and task based forums followed by an illustration of how each group progressed throughout the semester. An in-depth description of the coding scheme can be found in the methods chapter, but here is a brief overview of the coding categories:

- Independent Post: Any post that answers a forum prompt, but is not directed at a specific classmate
- Minimal Reply: Any response that is directed at another student's post, but offers minimal or no new ideas to the initial post
- Reflection/Addition: Any response that is directed at another student's post, and includes an in-depth response that furthers the conversation
- Question Post: Any post that asks a question about an assignment or the course in general
- Question Reply: Any post that answers a question post
- Social Element: Any post that includes social exchanges that is independent from the class material

The level of interaction between classmates can be seen through the presence of minimal response and reflection/addition posts in which students are interacting with each other through their contributions to the class forums. Followed by the close examination of each small group in Section 075, each section of WRIT 3562W will be analyzed using the same two tables to examine the level of student interaction on a class level. An overview of the task based forum activities can be seen below:

- Forum 1.2: "Post a definition of what you think technical communication is entering this class. State your definition in a complete sentence (or sentences)."
- Forum 4.1: "**Complete Exercise 2 on p. 516 in the class text:** Use the principles in Chapter 18 to sketch a new layout for *one page* of Figure A on page 519."
- Forum 4.2: "Refer to the web link for [Citing visuals](#) and to either [APA](#) or [MLA](#) and offer a guideline (e.g., a rule for using graphics from other sources). Include an example of a visual that includes the in-text citation (or callout), a figure label, and a full citation as the 'source.'"
- Forum 5.1: "Discuss your usability test by addressing the following questions:
 - Did you set preliminary objectives for your users?
 - What type of test did you conduct with your audience?
 - How did you measure accuracy?

- What surprised you about the results?”
- Forum 6.1: “Read the case study, "Bad Chemistry," on p. 268 of our textbook. Post a response to the questions in the last paragraph of the case study.”
- Forum 6.2: “[...] post a passage (2-3 sentences or a paragraph) in which you used information from one of your research sources. Choose one style (APA or MLA) and show the following:
 - a direct quote AND a paraphrase or summary with correct **in-text citations**
 - a correct **full citation** from your source for the Reference page (APA) or the Works Cited list (MLA)”
- Forum 7.1: “Read the "Revision Challenge" on p. 312 of our textbook. Suggest ways the introduction could be made sharper. Refer to specific passages and suggest how those passages might be improved--please include a rewrite of the passages you identify.”

Again, the task based forums include prompts that do not include any explicit instructions about discussing the activity/prompt with classmates, while the discussion based forums do include instructions that encourage/require discussion among classmates. An overview of the discussion based forums is provided below:

- 1.1: “[...] Once you have created a profile, then post an introduction of yourself to the class and describe your major and reason for taking the WRIT 3562W. You may post a written or video introduction [...]”
- 2.1: “[...] Post a response in which you address ONE of the following questions:
 - What is the rhetorical situation of the letter? (see pages 100-102)
 - How well is the letter organized in terms of the subject, purpose, and main point? (see pages 102-106)
 - How well has the author used the "you style" with clear but direct communication? (see page 116)
 - How well has the author used the letter format? (see page 118)
 After posting, read through student responses in all four areas. Respond to one other student who addressed a question that you did not address. To post your response, click on "Add a new discussion topic."
- 3.1: “[...] After reading Chapter 4, reread the letter by Albert Einstein on pp. 70 & 71. Do you think Einstein's letter responds to personal ethics, social ethics, or conservation ethics? How so, and do they overlap? What else is on your mind after reading Einstein's letter? Shoot for a couple paragraphs in your response. Write with detail, striving for succinctness and clarity. Feel free to briefly respond to other students' responses.”
- 3.3: “For this forum, I'd like for you to discuss how your views of technical writing have changed since the beginning of the semester. Some questions to consider are: Have your views on technical writing changed? If so, how? Do you

see examples of technical writing in your daily lives? If so, what are they? How has learning more about technical writing changed your learning goals for this course?

These questions are meant to be a starting point for the discussion. Remember that this should be a conversation amongst students rather than an independent post. Ask each other follow-up questions, for clarification, for examples, comparisons/differences in opinion, etc.

- 6.3: “For this forum, you will share information about your topic for your analytical report and create a dialogue with classmates that includes any comments/questions/concerns [...] What questions or concerns do you have with your topic? This is a perfect opportunity to get feedback from your classmates regarding your project that may help you. Remember that this should be a conversation rather than an independent post.”
- 7.3: “For this forum, we will be working with the empirical research you plan to use in your analytical report. To begin, reread the sections on p. 398-99 of our textbook. Then answer the following questions below [...] Again, this forum is meant to be a conversation between classmates-not independent posts. Use this forum to your advantage by strengthening the empirical portion of your project.”
- 7.4: “[...] take the time to view some of your classmates sources. Would they convince you if you were the primary reader of her/his analytical report? Why or why not? Do you know any sources that may be relevant to your classmate's topic? What could the classmate do to improve her/his sources?
Again, your contributions should not be independent posts, but should foster classroom discussion.

The next section takes a look at what types of forum posts each group in Section 075 used within each forum for WRIT 3562W. The data from the tables that follow depict the level of interaction (in terms of quantity of posts) as well as the style of interaction (in terms of type of post) between the six small groups within Section 075.

Section 075 - Group A

Table 5.1: Task Based Forums for Group A

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.2	4	3	1	0	0	0	0
4.1	6	4	0	2	0	0	0
4.2	3	3	0	0	0	0	0
5.1	2	2	0	0	0	0	0
6.1	4	4	0	0	0	0	0
6.2	3	3	0	0	0	0	0
7.1	4	4	0	0	0	0	0
Total	26	23	1	2	0	0	0

Table 5.2: Discussion Based Forums for Group A

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.1	8	4	2	2	0	0	0
2.1	7	3	3	1	0	0	0
3.1	7	4	0	3	0	0	0
3.3	4	3	1	0	0	0	0
6.3	7	3	0	4	0	0	0
7.3	4	3	1	0	0	0	0
7.4	7	3	3	1	0	0	0
Total	44	23	10	11	0	0	0

Group A provides an interesting overview of how groups interact within the class forums. As you can see in Table 5.1 providing an overview of the task based forums, there was very little interaction among the group on these forums. In fact, the one minimal response post for Forum 1.2 was contributed by the instructor of the course and the two reflection/addition posts for Forum 4.1 were added as peer reviews. The peer reviews were not a required part of the forum, so it is odd that these response posts were present. However, one of the group members may have misread the prompt for Forum 4.1 and posted a peer review while another student may have simply followed the example of the first student. The types of interaction for the discussion based forums varied (see Table 5.2), but there was at least one instance of a student response in each of these forums. One specific observation to note is that during the final forums, Group A started to add the majority of their posts to single threads--something that was not required or instructed. Grouping all the forum posts to fewer threads made the forums seem more interactive based on how each student's contribution was located in the same "digital space" and was less fragmented.

Section 075 - Group B

Table 5.3: Task Based Forums for Group B

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.2	5	4	1	0	0	0	0
4.1	4	4	0	0	0	0	0
4.2	4	4	0	0	0	0	0
5.1	4	4	0	0	0	0	0

6.1	10	4	1	5	0	0	0
6.2	4	4	0	0	0	0	0
7.1	4	4	0	0	0	0	0
Total	35	28	2	5	0	0	0

Table 5.4: Discussion Based Forums for Group B

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.1	9	5	4	0	0	0	0
2.1	9	5	0	4	0	0	0
3.1	9	4	0	5	0	0	0
3.3	7	1	1	5	0	0	0
6.3	11	4	1	4	1	1	0
7.3	9	5	1	3	0	0	1
7.4	6	4	2	0	0	0	1
Total	60	28	9	21	1	1	2

Group B demonstrated a very strong sense of collaboration among the forums.

The majority of task based forums were completed independently, but the group initiated an in-depth discussion on Forum 6.1 which details a case study involving an ethical dilemma as seen in Table 5.3. There were no instructions to discuss the case as a group, but Group B built a discussion based on the ethical decisions each student proposed in her/his initial post. However, the inclusion of the discussion based forums is where Group B emerged as a tightly knit group. Looking at Table 5.4, Group B began the course strong in terms of interaction, and a significant part of that seemed due to the role of the group moderator. There were multiple instances in which the group moderator

took charge of forum discussions and replied to each of his/her group member's posts. The initial instance of a group moderator guiding a forum discussion early in the semester seemed to define the role of the group moderator within this group, and establish an expectation for the moderator's duties that was continued throughout the semester. Two specific observations worth pointing out are the group's use of response type posts and Forum 3.3. As a group, the number of response posts (minimal response and reflection/addition) was higher than the amount of independent posts among discussion based forums with the majority of them being reflection/addition posts. Forum 3.3 was unique due to the fact that there was one initial independent post, and the remainder of that forum took place as response type posts. While there were two examples of social elements included in the posts, they occurred near the end of the semester and did not seem to affect the group's interactions. Group B's behavior throughout the semester illustrated a group that had relatively high levels of interaction for an online course.

Section 075 - Group C

Table 5.5: Task Based Forums for Group C

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.2	7	4	0	3	0	0	0
4.1	4	4	0	0	0	0	0
4.2	4	4	0	0	0	0	0
5.1	3	3	0	0	0	0	0
6.1	3	3	0	0	0	0	0
6.2	3	3	0	0	0	0	0

7.1	3	3	0	0	0	0	0
Total	27	24	0	3	0	0	0

Table 5.6: Discussion Based Forums for Group C

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.1	8	4	3	1	0	0	0
2.1	7	4	1	0	1	1	0
3.1	9	3	0	6	0	0	0
3.3	5	4	1	0	0	0	0
6.3	3	3	0	0	0	0	0
7.3	3	3	0	0	0	0	0
7.4	4	2	2	0	0	0	0
Total	39	23	7	7	1	1	0

The progression of Group C's forums illustrates a group in which their level of interaction was very low throughout the entire semester. Except for Forum 1.2 (see Table 5.5), there were no task based forums in which the students in Group C showed any signs of interaction. Looking at the discussion based forums in Table 5.6, there were some instances of interaction between the students, but very little of the interaction moved past minimal responses. Instead, there was one reflection/addition post in Forum 1.1 (the introductions forum) and six reflection/addition posts in Forum 3.1. It is worth noting that out of all the forums, Forum 3.1 frequently contained the best levels of interaction in terms of quantity and quality among all the groups in Section 075. There were no signs of interaction through the entire second half of the semester, until two minimal response

posts in Forum 7.4--the final forum of the semester. It is worth noting that one of the group members was absent from the majority of forums during the second half of the semester, and this may have also affected the role of group moderator to a certain extent. Group C had the fewest number of posts compared to the rest of the groups in Section 075, and had a significantly lower amount of response type posts compared to the rest of the class. The inclusion of small groups and group moderators seemed to have very little effect on Group C.

Section 075 - Group D

Table 5.7: Task Based Forums for Group D

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.2	5	4	0	1	0	0	0
4.1	6	6	0	0	0	0	1
4.2	4	4	0	0	0	0	0
5.1	2	2	0	0	0	0	0
6.1	5	5	0	0	0	0	0
6.2	4	4	0	0	0	0	0
7.1	4	4	0	0	0	0	0
Total	30	29	0	1	0	0	1

Table 5.8: Discussion Based Forums for Group D

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.1	12	5	4	3	0	0	0
2.1	9	4	2	3	0	0	0
3.1	14	4	0	10	0	0	9
3.3	6	3	0	3	0	0	2
6.3	18	5	2	11	0	0	10
7.3	3	3	0	0	0	0	1
7.4	8	4	3	1	0	0	4
Total	70	28	11	31	0	0	26

The level of interaction among task based forums showed similar levels to the other groups in Section 075 as seen in Table 5.7. There was one example of a reflection/addition post and one example of social interaction, but the rest of these forums included independent posts. However, the level of interaction among Group D members in discussion based forums, found in Table 5.8, demonstrated positive attributes in a variety of ways. The level of posts in the discussion based forums was more than twice the number of posts in task based forums. Additionally, the amount of response based posts (minimal response and reflection/addition) were significantly higher than the independent posts, and the number of reflection/addition posts was almost three times the number of minimal response posts. These observations alone show the amount of interaction between the members of Group D; however, the most interesting things found in this group's forums were the presence of social elements and how the group moderators conducted themselves.

Group D exhibited a very high level of social elements for an online group. Once the presence of social elements began, it remained a pattern throughout the rest of Group D's forums. Group D included elements of social interaction including specialized salutations (e.g., "Dear friends"), offered personalized gratitude for specific suggestions (e.g., "Thank you [...] for taking the time to respond to my post and your advice on [...]"), as well as questions and responses about each other's lives outside of the classroom (e.g., "Hope everyone had a great weekend" and "My weekend was okay. Did not get to go out much because I had [...]"). These types of interactions seemed to influence the level and style of posts within the forums, and create an environment in which each group member was more invested in their group's forums. The group moderators were also unique in Group D based on how they took a more assertive role within the forums. Not only did the group moderators work on responding to their group members posts, but they also utilized strategies such as creating additional guidelines within a forum or synthesizing all the content of a forum. For example, one group moderator began the Forum 6.1 by including the following instructions, "Hello group. Everyone should start thinking about reading the case study 'Bad Chemistry' in chp. 9. Take some time to read chp. 9 too before answering. I think it might help us with our answer. Remember that it is due on Wed." One group moderator also attempted to centralize and synthesize one forum by posting:

After reading everyone's post two things came up that I would like everyone to briefly respond to please. The first thing is I noticed is a lot of you were saying that in the letter there was an "honest" tone. Can you further justify this conclusion? Another thing that I read in one of your

posts was the idea that there was an example of social ethics in the fact that we can choose whom to protect and defend. How can ethics be used in both good and bad/manipulating ways?

The group moderators in Group D frequently employed techniques that attempted to push for a stronger form of collaboration among their group members. The level of interaction among Group D members tapers off near the end of the semester, but their contributions to the class forums portray a group with strong levels of interaction throughout the course of the semester.

Section 075 - Group E

Table 5.9: Task Based Forums for Group E

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.2	5	4	1	0	0	0	0
4.1	4	4	0	0	0	0	0
4.2	4	4	0	0	0	0	0
5.1	6	3	2	1	0	0	0
6.1	11	4	1	6	0	0	0
6.2	4	4	0	0	0	0	0
7.1	4	4	0	0	0	0	0
Total	38	27	4	7	0	0	0

Table 5.10: Discussion Based Forums for Group E

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.1	8	4	4	0	0	0	0
2.1	8	5	1	2	0	0	0
3.1	7	4	0	3	0	0	0
3.3	8	2	0	6	0	0	0
6.3	12	4	1	7	0	0	0
7.3	9	4	0	5	0	0	0
7.4	10	4	0	6	0	0	1
Total	62	27	6	29	0	0	1

The dynamic among Group E was one that seemed to build throughout the first part of the semester, and was sustained throughout the later forum activities. As seen in Table 5.9, Group E exhibited more of an independent type of behavior throughout the task based forums except for Forum 5.1 and 6.1. The interaction within Forum 5.1 was based on the fact that this forum revolved around the group project. Rather than posting independent analyses of the usability testing for Assignment 5, the group members responded to the initial post within the forum. Forum 6.1 showed the most in-depth level of interactions among the task based forums which may be due to the nature of providing a response to an ethical case study within the text. Group E's members chose to offer their own ideas on how they would deal with the situation within Forum 6.1, but also compare and contrast the types of strategies among the group's members.

Within the discussion based forums in Table 5.10, Group E began with more surface level types of feedback that grew into more substantial types of interaction. This

may be due to the nature of getting to know each other within a digital environment as well as the role of the group moderator. As the semester progressed, Group E seemed to establish a structure for how the group moderator functioned specifically using the group moderator role to interact with group members on a one-on-one level of interaction. However, the style of interaction seemed to evolve again near the end of the semester to a manner in which multiple group members were interacting each other versus the one-on-one format. Group E was interesting based on how their group seemed to continue to evolve in their interactions as the semester progressed.

Section 075 - Group F

Table 5.11: Task Based Forums for Group F

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.2	7	4	2	1	0	0	0
4.1	4	4	0	0	0	0	0
4.2	4	4	0	0	0	0	0
5.1	1	1	0	0	0	0	0
6.1	12	5	0	7	0	0	0
6.2	4	4	0	0	0	0	0
7.1	7	4	3	0	0	0	3
Total	39	26	5	8	0	0	3

Table 5.12: Discussion Based Forums for Group F

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.1	9	4	5	0	0	0	0
2.1	8	5	1	2	0	0	0
3.1	19	6	1	10	1	1	0
3.3	4	1	0	3	0	0	0
6.3	8	4	0	4	0	0	2
7.3	7	4	2	1	0	0	0
7.4	5	1	0	4	0	0	0
Total	60	25	9	24	1	1	2

Group F represented one of the stronger groups in terms of interaction, and a significant part of that seemed to be based on example put forth by the initial moderator. Within the first postings, the group moderator stated, “Please make sure you guys keep checking back so that we can get a discussion going with Forum 3.1 due tomorrow! As the moderator this week, your participation helps both your grade and mine, so please participate!” Within this post, the group moderator has stressed the importance of class forums and their effects on grades as well as establishing a routine for checking the forum frequently to help build the conversations. Additionally, Group F exemplified some unique behaviors in how they expanded the purpose of the forums. For example, Forum 3.1 asked students to reflect on the idea of ethics after reading a letter by Albert Einstein about atomic bombs. However, the moderator began the forum by posting the following:

Hey guys!

So, I am lucky enough to be the first moderator for our group; yay me ;)! Anyways, with Forum 3.1 due on Wednesday, I just wanted to ask a question that will get us thinking about ethics and Chapter 4. Feel free to post your thoughts and responses to other people's ideas!

How do ethics play a part in your personal life? Do your personal morals and values weigh heavily on decisions you make day-to-day?

Before completing the forum prompt, the group moderator added another discussion component to contextualize the material of the class readings and the topic of that Unit. This additional prompt created by the moderator received ample feedback from the group and served as a nice precursor to the actual prompt.

The overall behavior within the task based forums (see Table 5.11) compared to a lot of the groups in that the majority of posts were independent posts, but Forum 6.1 included some interaction among the members of Group F. In looking at the discussion based forums in Table 5.12, Group F maintained a relatively stable level of interaction throughout the semester while posting a significantly higher level of posts for Forum 3.1. Overall, Group F demonstrated a higher amount of response type posts within the discussion based forums and showed a high level of interaction within the group.

Section 076 as an Entire Class

Table 5.13: Task Based Forums for Section 076

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.2	25	24	1	0	0	0	0
4.1	23	23	0	0	0	0	0
4.2	22	22	0	0	0	0	0

5.1	20	20	0	0	0	0	0
6.1	24	24	0	0	0	0	0
6.2	24	23	1	0	0	0	0
7.1	22	22	0	0	0	0	0
Total	160	158	2	0	0	0	0

Table 5.14: Discussion Based Forums for Section 076

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.1	24	24	0	0	0	0	0
2.1	49	23	13	13	0	0	0
3.1	22	18	1	3	0	0	0
3.3	42	19	12	11	0	0	0
6.3	28	21	3	4	0	0	4
7.3	32	23	1	8	0	0	5
7.4	23	16	3	4	0	0	4
Total	220	144	33	43	0	0	13

Section 076 illustrates one example of how discussion forums function within a class setting in which all 24 students are able to see and comment on all of their classmate's posts. As you can see in Table 5.13, the amount of interaction on task based forums was minimal and only included two responses throughout all seven forums. However, this is not surprising based on how these forums are constructed and ask for a more independent style of participation from students. Transitioning from the task based forums to the discussion based forums provides a much different picture. While the

discussion based forums are meant to foster interaction between the students, the level of interaction between students was often diffuse. As seen in Table 5.14, only two forums, Forum 2.1 and Forum 3.3, contained the amount of interaction through response type posts that mirrored the size of the 24 student class. Forum 2.1 had students analyze a letter of complaint and respond to a classmate's post and Forum 3.3 had students discuss their changing views of technical communication while also addressing similarities/differences seen within classmates' posts. The remaining five discussion based forums failed to accumulate more than 9 responses among the students. There are two significant observations to be made within Section 076's discussion based forums. First, the two forums that received several responses were at different points in the semester, and demonstrate that the level of participation did not taper throughout the duration of the semester. Second, the lack of participation from the majority of the class meant that a lot of students' contributions to the class were rarely, if ever, responded to. Instead, there seemed to be a select few students who routinely commented and received comments on each other's work. These results allude to the fact that the class forums, which represent a significant portion of the course, may leave students feeling more isolated and independent from their classmates.

Section 077 as an Entire Class

Table 5.15: Task Based Forums for Section 077

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.2	23	23	0	0	0	0	0
4.1	23	23	0	0	0	0	0
4.2	21	21	0	0	0	0	0
5.1	17	14	2	1	0	0	0
6.1	21	21	0	0	0	0	0
6.2	20	20	0	0	0	0	0
7.1	17	17	0	0	0	0	0
Total	142	139	2	1	0	0	0

Table 5.16: Discussion Based Forums for Section 077

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.1	27	26	1	0	0	0	0
2.1	42	22	6	14	0	0	1
3.1	20	19	0	1	0	0	0
3.3	42	19	8	15	0	0	0
6.3	37	20	5	12	0	0	3
7.3	46	34	2	10	0	0	5
7.4	21	11	3	7	0	0	1
Total	235	151	25	59	0	0	10

Section 077 offered some slight variations compared to Section 076 (it is important to note that Section 077 contained three fewer students than Sections 075 and 076 affecting how the total number of posts should be interpreted). Table 5.15 shows a similar level of interaction within the task based forums as Section 076. The only type of response based posts occurred within a group in Forum 5.1, a forum designed to talk about the results of a usability test for the group instructions project. The discussion based forums, shown in Table 5.16, portray a different pattern than Section 076. Section 077 has a large amount of response type posts in Forum 2.1, and peak in terms of the number of response type posts in Forum 3.3. However, after Forum 3.3 there is a continual drop off in the number of response type posts. One potential hypothesis for the drop off in level of interaction is that the course begins to focus primarily on the completion of the analytical report (the major assignment of the course) during Unit 6. Despite the inclusion of discussion based forums, students may have transitioned into a more independent style of participation in order to research and compose their final projects.

In terms of class interaction, the same issues are found in Section 077 as Section 076. Several students received little or no recognition of their posts through student responses, which may have fed into a process of disengagement from the other students in the course. Additionally, there were a small number of individuals who continued to post responses to other students' work, but who they responded to also changed throughout the course. By the end of the semester, the students who were still posting responses sought out similar students who were also still posting responses. In a natural

progression of events, this small number of students formed their own kind of group, a group that was visible to the entire class but interacted primarily with select classmates.

The Differences between Small Groups and Class Based Discussions

Table 5.17: Task Based Forums for Section 075

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.2	33	23	5	5	0	0	0
4.1	28	26	0	2	0	0	1
4.2	23	23	0	0	0	0	0
5.1	18	15	2	1	0	0	0
6.1	45	25	2	18	0	0	0
6.2	22	22	0	0	0	0	0
7.1	26	23	3	0	0	0	3
Total	195	157	12	26	0	0	4

Table 5.18: Discussion Based Forums for Section 075

Forum	Total Posts	Independent Post	Minimal Reply	Reflection/Addition	Question Post	Question Reply	Social Elements
1.1	54	26	22	6	0	0	0
2.1	48	26	8	12	1	1	0
3.1	65	25	1	37	1	1	9
3.3	34	14	3	17	0	0	2
6.3	59	23	4	30	1	1	12
7.3	35	22	4	9	0	0	2

7.4	40	18	10	12	0	0	6
Total	335	154	52	123	3	3	31

As you can see from Tables 5.17 and 5.18, there are some major differences in how Section 075 compared to Sections 076 and 077 regarding the class forums. The first difference to point out is that Section 075 had a higher amount of posts in both task and discussion based forums. This fact alone demonstrates how the inclusion of small groups can affect forums in an online environment. However, the more interesting observations are found in looking at the types of contributions to these forums. While my primary method of analysis was qualitative, Tables 5.19 and 5.20 use percentages to illustrate overall trends in the types of comments made between all three sections of WRIT 3562W.

Table 5.19: Percentage of Each Type of Post per Section in Task Based Forums

Section	Independent Post (%)	Minimal Reply (%)	Reflection/Addition (%)	Question Post (%)	Question Reply (%)
075	0.805128205	0.061538462	0.1333333333	0	0
076	0.9875	0.0125	0	0	0
077	0.978873239	0.014084507	0.007042254	0	0

Table 5.19 shows the percentage of different types of posts each section of WRIT 3562W contributed to task based forums. Although the task based forums' instructions convey a sense of independent work, Section 075 incorporated more than 6% of minimal reply and over 13% of reflection/addition type posts. The majority of response type posts

within Section 075 occurred during Forums 1.2 and 6.1. Forum 2.1 asked students to define what they think technical communication means while Forum 6.1 requires students to provide feedback to an ethical dilemma illustrated through a case study in the course textbook. Despite the independent nature of these forums, the interaction among students offered rich insights and provided new opportunities for learning and extending the basis of these exercises. The type of differences between participation and interaction can also be seen in the discussion based forums, which can be seen in Table 5.20.

Table 5.20: Percentage of Each Type of Post per Section in Discussion Based Forums

Section	Independent Post (%)	Minimal Reply (%)	Reflection/Addition (%)	Question Post (%)	Question Reply (%)
075	0.459701493	0.155223881	0.367164179	0.008955224	0.008955224
076	0.654545455	0.15	0.195454545	0	0
077	0.642553191	0.106382979	0.25106383	0	0

Table 5.20 demonstrates a much larger proportion of response type posts within discussion based forums within Section 075 compared to Sections 076 and 077. It is important to note that more than half the comments within Section 075's discussion based forums were response type posts and demonstrates a strong level of interaction between the students in that class. It is also interesting to note that the two forums that saw the most interaction within Section 075 (Forums 3.1 and 6.3) did not see nearly the same levels in Sections 076 and 077. Forum 3.1 discussed the ethical situations included in a letter written by Albert Einstein and Forum 6.3 had students present their topic ideas

for their Analytical Report projects. A big reason that these forums contained so much interaction within Section 075 seemed based on how they were presented by the group moderators. The analysis of the group forums among the three sections provides some potential conclusions about the creation of class forums, the type of responses posted in class forums, and the effect of small groups and group moderators on class forums.

Creating Class Forums in Digital Environments

The first step in fostering student interaction using class forums in an online classroom requires the instructor to think about the type of forum he or she wants to construct. While I organized the fourteen forums into two general categories of task based and discussion based forums, these two categories illustrated a big difference between the levels of participation among all three classes. Constructing a forum that has students complete a specified activity may reinforce some skill related to the course goals, but it does not encourage any interaction between the students. In opposition to this, creating a forum that may include an activity but also encourages students to reply to each other greatly enhances the level of interaction among students. Within the context of my analysis, this alludes to two significant conclusions. First, working in an online environment seems to imply a sense of independent participation for students. While comments and discussion may seem to occur more naturally in face-to-face environments, students seem to perceive online coursework as something that is acceptable to complete independently. If students perceive online courses in this manner, it presents instructors with the challenge to find strategies to help students engage with each other.

The second observation in regards to student interaction within online class forums is the need to be explicit in what you want students to do. Again, students seem in some level to perceive online courses as an independent work space, and this perception may present online learning as its own form of learning genre. This genre hints at an idea that if I am a student taking an online course, I can log in and participate when I want on my own terms. Therefore, if an instructor wants to see more interaction between students in an online course, it is her/his responsibility to make that explicit either at the course level (e.g., make it a part of the class syllabus) or imbed interaction into each relevant activity/assignment. Interaction is not something that occurs as naturally in an online course compared to face-to-face classrooms, and this can affect how and what students learn in online courses.

The Different Types of Posts Found in Online Classrooms

The taxonomy of class forum posts I created for this analysis each have their own effects in online environments. The most predominant type of post found in each section was independent posts. This is not surprising given the fact that some level of participation grading is incorporated into the course. Additionally, independent type posts are necessary before any other type of post can exist. The two type of response posts, minimal reply and reflection/addition, are both important posts that benefit interaction in the classroom. While minimal replies may not seem to add much to a discussion, they do two important things. First, the presence of a minimal response demonstrates recognition of a previous post. A student adding something like “I agree!” to an independent post may not add much to a discussion itself, but it shows the

composer of the initial post that her/his work was recognized by another student. Second, minimal responses may serve as a transition to more in-depth style posts later on. Simply agreeing/disagreeing or adding a brief general comment to a forum may contribute to a sense of group or class ethos that helps students get a feel for their group/classmates and lead to more detailed posts later on.

The inclusion of reflection/addition type responses is when a deeper level of student interaction occurs. Any post that challenges or adds new ideas to an existing discussion provides students with new perspectives and challenges them to think about course content in new ways. While it is up to students to post reflection/addition type responses, this is another area in which instructors may be able to provide more explicit instructions on what kind of posts they want to see from their students. The question post/replies appeared very little within all three sections of WRIT 3562W. Based on this point, they did not seem to have much effect on the way the class forums functioned. However, of the few questions asked throughout all of the forums, each one was answered by another student which itself is an important form of interaction. Finally, the inclusion of posts that contained social elements was something that did not seem to have much effect on the on the content of the forums. Instead, the posts that contained social elements may have also helped create a sense of group or class ethos and through that benefited a forum. For example, both of the forums that demonstrated the most interaction in Section 075 (Forum 3.1 and 6.3) also contained the most social elements within the posts. A more in-depth analysis would need to be completed to determine how the inclusion of social elements affects class forums.

Small Groups and Group Moderators versus Single Class Forums

Despite the small sample size between the three sections of classes, the inclusion of small groups and group moderators had profound effects on how the forums functioned. The effect that the group moderator had on class forums was getting the conversation started and keeping the conversation going. As was seen in the analysis of the six small groups in Section 075, the moderator played a significant role in starting a discussion thread, responding to her/his fellow group members' posts, and helping to construct the reflection/addition type of responses that kept discussions growing. Additionally, there were a few examples in which the group moderator added novel components to the class forums which provided examples of when students transformed the content of the classroom into something entirely their own.

The incorporation of small groups also demonstrated a significant effect based on the distribution of interaction and presence within the class forums. While there were several examples of interaction within Sections 076 and 077, there were always students who did not receive any kind of feedback during each forum. However, the use of small groups and group moderators created an atmosphere in which each student had an increased presence due to the fact that there were only four members in each group, and that they had a higher level of interaction based on the group moderator's responsibility to lead and continue class forums. Another factor that helped with interaction among the small groups was the modified structure of the forums. Having a class of 21 or 24 students all respond within one forum provided a cumbersome amount of content that was overwhelming to follow and difficult to navigate. The inclusion of small groups made each group's forums easy to follow and respond to select student posts.

While my analysis of Section 075's class forums does not seem to affect the level of student interaction over the course of the semester, I argue that it demonstrates a clear difference in the overall quality of class forums compared to classes that engage in class size forums. Section 075 contained a much higher quantity of posts in both task and discussion based forums. While quantity may not be the best indicator of interaction between students, it does clearly present a situation in which there is more potential for engagement and interaction to occur. At the same time, the quality of Section 075's forum discussions are more directed towards student interaction based on the types of forum posts. Although each small group showed varying levels of interaction, as a class, Section 075 outperformed Sections 076 and 077 in response type posts. Section 075's discussion based forums contained a majority of response type posts (minimal response and reflection/addition), and this demonstrates a higher level of interactivity and student interaction.

The next chapter looks at the idea of student interaction in relation to the group project. While the class forums was worth a similar amount of points to the group project, the two parts differ in that the points associated with the class forums were distributed over the course of the semester while the points for the group project were determined over a period of less than two weeks. The group project representing a significant amount of points in a short time period changed the ways in which students interacted with each other. Chapter Six explores how these interactions occurred and what they might mean in relation to student interaction.

Chapter 6: Student Interaction in Group Projects

This chapter examines the level of student interaction throughout a group project within WRIT 3562W: Technical and Professional Writing. While Chapter 5 looked at the ways in which students interacted within class forums over the course of an entire semester, this chapter analyzes how students engage with each other during a smaller time frame working to complete a group project. The group project asks each group to create a set of instructions for an audience of grade-school age children. The analysis of the group project is meant to answer the following questions:

- Are there any significant differences between a class that incorporates pre-existing small groups/group moderators versus a class that uses random groupings for this specific assignment?
- What kind of discourse strategies do students use to successfully complete this assignment?

To answer these questions, this chapter provides an overview of the discourse analysis of each group's discussion forum for the group project. Similar to the two previous chapters, the sub-set of research questions listed above was developed to focus on the specific nature of student interaction within the constraints of the group project. The answers that I found regarding the sub-set of research questions then feed back into the main research questions of this dissertation regarding how small groups and group moderators affect the idea of student interaction and what course design choices lead to positive student interaction. The results of my analysis for this chapter demonstrate that while the use of pre-existing small groups does not seem to affect the level interaction within the group project, the inclusion of the group moderator role provides an advantage

by “assigning a leader” to initiate and organize the activities of the project. While “leaders” did emerge naturally within some of the groups in Section 076, the group moderator role helped engage the students within the project faster and more effectively on average compared to the groups in Section 076 in which a leader did not emerge. This result ties into my main research question of how small groups and group moderators affect student interaction. The types of discourse strategies employed by the different groups also ties into how course design choices affect student interaction by illustrating how students communicate through a “group forum” and whether or not instructors should think about incorporating additional communication technologies into the group project. The remainder of this chapter reports the types of discourse between all the groups in Section 075 and 076, and contextualizes it with the sub-set of research questions listed above.

About Unit 5 Assignment: Instructions and Reflective Memo about Your User Test

The Unit 5 Assignment took place during the seventh through ninth weeks of the semester. Although the assignment takes place over three weeks on the course schedule, the students have roughly 11 days to complete the assignment as a group based on when the schedule has them “meet” their groups to when they turn in a final draft of the assignment. The timing of this assignment provides an additional challenge when factoring in the use of asynchronous communication in a digital environment.

The assignment has three primary tasks for each group to complete: creating a set of instructions, performing a usability test, and composing a reflective memo that provides an overview of how the group performed throughout the project. For the actual creation of the instructions, groups have three different options. They can either pick

from two existing ideas, making a paper airplane or building a LEGO structure, with a pre-determined set of materials. The third option is for the group to come up with its own topic as long as the instructor approves it. The only other criteria for this assignment are that the instructions be designed for an audience of grade-school age children and that each set of instructions includes at least five illustrations. Each group can “draw, photograph, or digitally create your illustrations,” as well as take an image from a website as long as it is properly cited. Additionally, students can choose from a variety of genres to create their instructions including pamphlets, posters, websites, YouTube videos, etc.

Each group is required to conduct a usability test for the second component of the assignment. While the assignment prompt provides several resources regarding usability tests, each group is responsible for creating their own usability test and metrics based on their sets of instructions. The only requirements for this part of the assignment are that each group has to perform at least two usability tests and that the human subjects need to be at least 18 years old based on the IRB status of the course.

The final component of the assignment is a reflective memo to the instructor in which each group addresses the following things: technique analysis, document genre, instruction methods, usability testing, and roles of all participants. Each group submits one set of instructions and a reflective memo. The grading criteria for the assignment can be found in Table 6.1 on the next page.

Table 6.1: Rubric for Unit 5 Assignment—Instructions & Reflective Memo about Your User Test

Unit 5 (Instructions) Evaluation Criteria			
	Group:	Possible points	Your score
Audience Analysis	The content, design, and rhetorical approach of the instructions were appropriate for an audience of grade-school children.	5	
Instructional features (excluding procedural steps)	The instructional features (introduction, list of materials, warnings and cautions, outcome) were functional, effective, and relevant.	10	
Mechanics & Parallelism	The document was edited for grammatical and punctuation errors. Similar instructional elements (headings, white space, imperative procedural steps) were formatted using consistent structures	5	
Visuals	The instructional document included at least three visuals, which were functional, well placed, and clearly labeled.	10	
Procedural steps	The imperative commands were clear, concise, and specific. When possible, they were effectively chunked, or organized into smaller, more manageable groupings.	15	
Reflective memo	The reflective memo addressed, in short, how and why your instructions are effective, and detailed how the usability test affected the final presentation of your instructions. It also conformed to the format and structure of memos as illustrated in Chapter 17 of your textbook.	15	
		60	

Technological Resources and Limitations of Data

Students were free to use a variety of technologies to complete their group projects. However, the primary communicational resource imbedded within the class Moodle site was a forum dedicated to the project, “Your Group’s General Instructions Forum.” Each group had access to this forum, and each group’s contributions to the

forum were kept private from every other group. In addition to being provided this forum space, the assignment prompt also included a brief section and YouTube video about how to use Google Documents. While it is not required for the assignment, Google Documents is addressed as an effective technology to draft a document in a group setting. There are several other communicational and collaborative tools available, but students relied almost exclusively on the forum space and Moodle. A small number of groups also used Google Chat or the imbedded chat feature within Google Documents to communicate with each other.

Although Google Documents are a great resource for group projects, the use of such technologies illustrates one of the limitations of the analysis for this section. I had access to all of the groups' forums as well as any file attachment that was included in each forum, but I did not have access to any drafts or communication that existed outside of the Moodle environment. I believe that based on the forum content that each group relied primarily on the Moodle forums to communicate with their group members, but the lack of access to other communication mediums should be noted while reviewing this chapter.

About the Classes

This chapter focuses on the work submitted by groups in sections 075 and 076 of WRIT 3562W. Each of these courses had a full enrollment of 24 students that were separated into six groups of four students. Section 075 consisted of six groups of students that had been working together through the duration of the semester. Section 076 consisted of six groups that were randomly organized specifically for the Unit 5 Assignment: Instructions and Reflective Memo about Your User Test.

Section 077 has been excluded from the main portion of analysis of this chapter due to the structuring of the groups for the Unit 5 Assignment. The enrollment for Section 077 consisted of 21 students that were grouped randomly into four groups. As a result, each group possessed five to six students, and changed the group dynamics in a manner that would affect the comparison between Sections 075 and 076. The larger groups changed the way in which the project was completed including slight changes to group assigned roles, the effect of asynchronous communication, the amount of work each student was expected to produce, etc.

The next section provides a closer look at how each group in sections 075 and 076 worked throughout the group project. There are two tables presented for each group; however, the descriptions that follow do more to illustrate the nature of each group and how they worked together. The behavior categories are discussed in more detail near the end of the chapter. Each group demonstrates unique characteristics that do not lend themselves to broad generalities, but Tables 6.2 and 6.3 provide a comparative look between the average amount of posts and average behavior categories between sections 075 and 076. The basis for this analysis and the behavior categories can be found in the methods chapter.

Table 6.2: Distribution of Student Posts in Sections 075 and 076

	Average Number of Threads per Group	Average Amount of Total Posts per Group	Average Amount of Posts by Student
Section 075 (Treatment Class)	4.5	34.83333333	9
Section 076 (Control Class)	3.5	28.33333333	7.083333333

Table 6.3: Distribution of Behavior Categories in Sections 075 and 076

Behavior Categories	Mean for Section 075	Mean for Section 076
Planning	3.5	3
Contributing	21.16666667	19.5
Seeking Input	7.666666667	5.333333333
Reflection/Monitoring	2.5	0.5
Social Interaction	0	0

While Tables 6.2 and 6.3 illustrate a small sample size, it is interesting to note that Section 075 on average did produce more threads and posts than Section 076. However, the distribution of behavior categories between each section showed many similarities.

About the Groups

Section 075 – Group A

Table 6.4: Distribution of Student Posts in Group A, Section 075

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
7	23	Student 1	6	26.08695652
		Student 2	4	17.39130435
		Student 3	7	30.43478261
		Student 4	6	26.08695652

Table 6.5: Distribution of Behavior Categories in Group A, Section 075

Total Posts	Behavior Categories	Number	Percentage
23	Planning	5	21.73913043
	Contributing	10	43.47826087
	Seeking Input	5	21.73913043
	Reflection/Monitoring	3	13.04347826
	Social Interaction	0	0

Table 6.4 depicts the balance of student participation among Group A. The forum for Group A had a very straight forward approach in organizing the work early and keeping it organized by utilizing forum thread titles. Throughout their forum, Group A included titles such as, “Paper Airplanes Then?,” “Some Things to Consider,” and “usability testing.” Each thread was focused on a very specific component of the assignment. The organization of the forum threads also affected the types of behavior categories seen throughout the discussion as seen in Table 6.5. The first thread was used to determine what topic the group wanted to use for the assignment, and employed a lot of planning oriented posts. The later threads contained discussions on specific components of the assignment. While Group A did exhibit conversational elements with the inclusion of students seeking input and contributing input, the majority of the posts shared a current draft of the assignment. Because of this, the majority of posts exhibited a contributing behavior. The last couple of posts included reflection based statements that commented on the effort and final product of the group. There were no posts dedicated to social interaction. Instead, the closest form of social interaction took place while the students were working to select a topic, commenting on how they feel about LEGOS. There was a relatively even amount of participation between all four group

members. The only form of communication technology that was referred to or used throughout the assignment was the Moodle forum.

Section 075 – Group B

Table 6.6: Distribution of Student Posts in Group B, Section 075

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
4	45	Student 1	16	35.55555556
		Student 2	18	40
		Student 3	7	15.55555556
		Student 4	4	8.88888889

Table 6.7: Distribution of Behavior Categories in Group B, Section 075

Total Posts	Behavior Categories	Number	Percentage
45	Planning	4	8.88888889
	Contributing	24	53.33333333
	Seeking Input	15	33.33333333
	Reflection/Monitoring	2	4.44444444
	Social Interaction	0	0

Group B took a different approach in the technologies they used as well as how they used the group forum on Moodle. As is shown in Table 6.6, there were two group members who posted over three quarters of the posts to this group’s forum. Within the opening posts to the forum, Group B decided to use Google Drive in addition to the group’s forum space. While Group B did utilize multiple threads within the forum, the

content in each thread did not necessarily correspond with the title of the thread. Instead, each thread covered a variety of topics regarding the group project, and the group seemed to start new threads when there was too much content in an existing thread. There were two things that especially interesting within this group's forum. First, the group moderator for the first week of the project identified herself as the moderator and created a divided list of tasks that should be assumed by the members of the group. This provided an initial foundation through which the group progressed. Second, there was one comment in the forums that alluded to a time in which three of the group members were on Google Drive at the same time and used the chat tool to collaborate on the project. Based on the forum post, this was not an intentional decision, but helped the group complete a significant amount of work in a day. This was one of the few groups that alluded to using both asynchronous and synchronous communication technologies throughout the project. Although the group had a numerous amount of posts to the forum and communicated through Google Drive, the group's forum ended abruptly without any reflection on the overall status of the project.

Since the group used Google Drive for a portion of their project, the breakdown of each group member's contributions via forum posts may not provide an accurate overview of their true level of participation. Despite this fact, the types of behaviors displayed throughout the forum, as shown in Table 6.7, are similar to the rest of the groups in that there was no social interaction on the forum, and the main type of behavior category expressed throughout the forum was Contributing.

Section 075 – Group C

Table 6.8: Distribution of Student Posts in Group C, Section 075

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
4	23	Student 1	7	30.43478261
		Student 2	6	26.08695652
		Student 3	6	26.08695652
		Student 4	4	17.39130435

Table 6.9: Distribution of Behavior Categories in Group C, Section 075

Total Posts	Behavior Categories	Number	Percentage
23	Planning	2	8.695652174
	Contributing	11	47.82608696
	Seeking Input	5	21.73913043
	Reflection/Monitoring	5	21.73913043
	Social Interaction	0	0

Although Group C did not produce a lot of posts throughout their forum, they maintained a very equal level of participation among the group members (see Table 6.8) and were very organized throughout the project. Group C used four threads throughout the forum, and each one focused on a specific component of the assignment including selecting a topic, organizing group roles, working on text and graphics, and submitting a reflective memo. One of the key strengths for this group seemed to be organizing the work. The group moderator broke the project down into four individual tasks and had each group member select their own task. Additionally, another group member setup a

schedule for when each part of the assignment should be completed. These two factors were readily accepted by all the group members and seemed to work well for the group. While Table 6.9 shows that the behavior categories mirror the other groups, the content on Group C's forum mainly consisted of updates on the project. The majority of the actual components of the assignment were housed on Google Drive, and the forum was used to give status updates on different parts of the assignment. The forum ended with groups reflecting on the overall status of the project.

Section 075 – Group D

Table 6.10: Distribution of Student Posts in Group D, Section 075

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
4	41	Student 1	14	34.14634146
		Student 2	14	34.14634146
		Student 3	9	21.95121951
		Student 4	4	9.756097561

Table 6.11: Distribution of Behavior Categories in Group D, Section 075

Total Posts	Behavior Categories	Number	Percentage
41	Planning	4	9.756097561
	Contributing	27	65.85365854
	Seeking Input	8	19.51219512
	Reflection/Monitoring	2	4.87804878
	Social Interaction	0	0

Group D demonstrated some unique elements that were not apparent for every group. Despite having four threads throughout the forum as seen in Table 6.10, Group D completed the majority of their work in two threads. The other two threads only contained one post. While this group did utilize Google Drive to construct their set of instructions, their forum contained several posts that communicated about what had to be done as well as providing attached updates of the project which accounts for the large percentage of “Contributing Posts” in Table 6.11. The unique elements of Group D had to do with how they viewed the forum and the relationship between the group members. One component of the assignment requires the students to perform two usability tests with their instructions. Although the forum is a space that the instructor has access to (which the students should know from previous class exercises), some of the group members talked about faking the usability test results with comments like, “I could fib a usability test.” It was interesting to see how the students were discussing this kind of idea when the instructor can see what they are saying. The relationship between the group members was also interesting based on how three of the group members were extremely close knit while the fourth member was essentially left out of the assignment. The fourth member did not participate in any of the forum discussions until much later in the project, and when she finally contributed a post she received a reply of “We have already completed this assignment. Thanks.” However, the other three members incorporated a lot of language within their posts that illustrated a sense of strong camaraderie and familiarity between each other. This camaraderie was displayed in the discourse through the use of personally addressing each other and complementing each other’s work, statements of encouragement (included after posts that focused on

contributions), and using additional social cues like punctuation, emoticons, and text language. Group D exhibited a discourse behavior that resembled conversational behavior that is often absent in online classrooms.

Section 075 – Group E

Table 6.12: Distribution of Student Posts in Group E, Section 075

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
5	43	Student 1	9	20.93023256
		Student 2	19	44.18604651
		Student 3	7	16.27906977
		Student 4	15	34.88372093

Table 6.13: Distribution of Behavior Categories in Group E, Section 075

Total Posts	Behavior Categories	Number	Percentage
43	Planning	2	4.651162791
	Contributing	35	81.39534884
	Seeking Input	5	11.62790698
	Reflection/Monitoring	1	2.325581395
	Social Interaction	0	0

Table 6.12 portrays two group members that contributed the majority of posts to the group’s forum. The contributions in Group E’s forum were heavily influenced by an initial post by the group moderator. Within the first post, the moderator laid out a potential break down of roles and a schedule for the group. This initial post was adhered

to by the group and influenced how the different threads were created throughout the project. The group moderator ended her initial post saying, “”That all being said, post what role you would like to play below (by tonight) and list if you have any comments or suggestions for the ‘deadlines’—I’ll take whatever the last role left is...” Each group member responded well to this idea, and the combination of the moderator taking charge of the initial planning yet also being willing to accept whatever role was left seemed to set the stage for a strong group effort. The Contributing behavior was heavily dominant in the breakdown of behavior categories (see Table 6.13), but this may be due to the detailed structure laid out by the group moderator. Another point of interest throughout Group E’s forum was the way in which the forum threads were organized. In addition to the organizing the roles, the moderator also created a forum title “Topic Brainstorming.” This was one of the tasks included in the breakdown of roles, and consequently each forum thread created throughout the project mirrored the tasks described in that first post. As a result, the entire forum was well organized and made it easy to find different components of the project. While this group did use Google Drive to store their project on, the project revisions were also included in several of the forum posts to give the group members multiple ways to access the material.

Section 075 – Group F

Table 6.14: Distribution of Student Posts in Group F, Section 076

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
3	34	Student 1	9	26.47058824
		Student 2	9	26.47058824
		Student 3	10	29.41176471
		Student 4	6	17.64705882

Table 6.15: Distribution of Behavior Categories in Group F, Section 076

Total Posts	Behavior Categories	Number	Percentage
34	Planning	4	11.76470588
	Contributing	20	58.82352941
	Seeking Input	8	23.52941176
	Reflection/Monitoring	2	5.882352941
	Social Interaction	0	0

Group F seemed to differ from the rest of the groups based on the ways in which they used their forum, including limiting their forums posts to three threads as depicted in Table 6.14. Although there was still a lot of Contributing behavior within the posts (see Table 6.15), the vast majority of the posts were contributions regarding topic ideas and how to go about completing the assignment. The primary challenges that inhibited this group were the asynchronous nature of the forum communication and passive behaviors among all the group members. Although the group moderator did provide a framework

early in the forum, the group took a significant amount of time to reach a consensus regarding their topic, roughly 4 days. Another interesting component of Group F's forum was how they used the threads. Their entire discussion consisted of three threads, two of which were titled "Getting Started" and one that was titled "Project". Two of these threads ("Getting Started" and "Project") only consisted of three posts each leaving the remaining thread with 28 posts. The large quantity of posts in this one thread made the discussion more difficult to follow and led to posts covering a variety of topics. The most unique aspect of Group F's forum was during the transition to a new group moderator right before the assignment was due. Since the group project was essentially finished by this point, the moderator asked the group members to reflect on their views of the group project. Two members responded, with one of them pointing out the difficult nature of online communication based on it being "difficult to communicate well and work with schedule[s] since we all have our own busy schedules" as well as saying, "I don't like pressuring or even asking people to get things done." These two observations seem to illustrate how this group functioned throughout this project. It would have been interesting to view the Google document for this group since it seems that this is where the majority of the actual work took place.

Section 076 – Group A

Table 6.16: Distribution of Student Posts in Group A, Section 076

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
4	24	Student 1	10	41.6666667
		Student 2	8	33.3333333
		Student 3	4	16.6666667
		Student 4	2	8.3333333

Table 6.17: Distribution of Behavior Categories in Group A, Section 076

Total Posts	Behavior Categories	Number	Percentage
24	Planning	1	4.1666667
	Contributing	18	75
	Seeking Input	5	20.8333333
	Reflection/Monitoring	0	0
	Social Interaction	0	0

Group A consisted of members that were very organized and punctual with their work. A lot of their progress seemed to be based on one individual taking the lead on the project and everyone else taking additional roles to complete the assignment which may account for some of the balance of forums posts depicted in Table 6.16. The forum started with one group member proposing an idea for the project, which was quickly accepted by the rest of the group. The same day that the group reached consensus on their topic, the “group leader” had completed a rough draft of the instructions. At this point, another student took over the responsibilities of editing the document and adding

pictures to the text based instructions. Although the threads on the forum were well organized and the work was efficiently completed, only two of the members seemed to take on a significant portion of the assignment. The other two members maintained more of a supporting role completing usability tests that were created for them and completing their own reflective memos. Group A seemed to exhibit a working attitude of getting the project completed as soon as possible even if the work was not evenly distributed among the group. This result may tie in with the focus on Contributing behaviors in Table 6.17. Group A's work was successful, but it seemed to demonstrate issues of not working collaboratively in an online environment, and instead focused on two members taking over the project. These kinds of situations can also occur in traditional face-to-face classes, but in this instance the speed of contributions to the asynchronous communication seemed to isolate two members from the project which was interesting since the asynchronous nature of online work seemed to slow most groups down. Two additional interesting points of Group A's work were that they seemed to use the Moodle forum as their only tool to complete their work and the level of formality in their posts to each other. In this case, using the forum as the sole tool to complete this project seemed to negatively affect the collaborative nature of this project. Additionally, despite the fact that the Moodle forum automatically shows who wrote a post, three of the four members chose to include a signature to each of their posts.

Section 076 – Group B

Table 6.18: Distribution of Student Posts in Group B, Section 076

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
7	36	Student 1	13	36.11111111
		Student 2	7	19.44444444
		Student 3	6	16.66666667
		Student 4	10	27.77777778

Table 6.19: Distribution of Behavior Categories in Group B, Section 076

Total Posts	Behavior Categories	Number	Percentage
36	Planning	2	5.55555556
	Contributing	29	80.55555556
	Seeking Input	4	11.11111111
	Reflection/Monitoring	1	2.77777778
	Social Interaction	0	0

One of the key strengths of Group B was that one of the students quickly took the lead on the project. The student who became the leader on the project created an initial post titled, “Greetings and Topic Ideas,” which initiated activities and proposed creating a paper airplane and using Google Docs on the assignment. Each group member responded by agreeing with the idea and the use of Google Docs, and detailing their potential strengths in relation to the required components of the assignment. The leader of the group then created a second thread that provided a plan for creating the project, as well as assigning roles to each group member based on their listed strengths from the first thread.

Group B utilized the forum well by creating seven threads that focused on specific parts of the assignment—which can be seen in Table 6.18. By doing this, the group was well organized and maintained a strong collaboration between the group members which accounts for the high level of Contributing based posts in Table 6.19. One specific interaction that was interesting was how the group responded to a group member who came into the project late. In addition to posting to the “Greeting and Topic Ideas” thread, the group member created a thread titled, “Late to Respond,” which apologized and asked how she could contribute to the group. In some of the other groups in this study, a group member who was late to respond was to a certain extent left out of the project. However, the leader of Group B quickly responded telling the other member not to worry and assigning her a role within the group. Not only was one student acknowledged as the group leader with one student stating, “thank you [student’s name] for being the leader throughout this project,” but the presence of a strong leader seemed to contribute to the strong collaborative nature of this group.

Section 076 – Group C

Table 6.20: Distribution of Student Posts in Group C, Section 076

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
5	27	Student 1	8	29.6296296
		Student 2	6	22.2222222
		Student 3	6	22.2222222
		Student 4	7	25.9259259

Table 6.21: Distribution of Behavior Categories in Group C, Section 076

Total Posts	Behavior Categories	Number	Percentage
27	Planning	5	18.5185185
	Contributing	15	55.5555556
	Seeking Input	7	25.9259259
	Reflection/Monitoring	0	0
	Social Interaction	0	0

Group C had a relatively slow start to the group project, but had a very balanced level of participation as seen in Table 6.20. Each member of the group initially posted a separate “Greetings” thread introducing themselves to the rest of the group with the last individual expressing a desire to make a paper airplane for the assignment which was then agreed upon by the group. Despite the fact that everyone introduced themselves early in the assignment, the group did not post again to the forum for four days which was less than a day and a half before the first part of the assignment was due. The rest of the group’s forum posts were placed in the thread, “Let’s get going!” Placing several posts in one thread seemed to create issues with communication, specifically in regards to organization and interaction between specific group members. Since the majority of posts resided in one thread, it was difficult to find posts that related to specific elements of the assignment and forced the group to screen through the entire thread to find specific information. Additionally, using one thread created issues in which a group member was looking for specific feedback (see Table 6.21), but it did not appear until several posts later. This led to situations in which group members needed to infer context regarding some of the posts. Group C’s forum ends abruptly and begs the question of whether or

not the group was content with the final draft of their work or ran out of time. One student further illustrates this potential issue stating, “So I added an introduction statement and a materials list because I noticed in assignment 5’s tasks, this was required. I also changed it into two columns so it wasn’t so many pages. I don’t know if you submitted your final assignments yet but I thought we should include these things!” Based on this post which was added hours before the assignment was due, it is unclear whether or not the group members submitted the same set of instructions as their final draft of the assignment.

Section 076 – Group D

Table 6.22: Distribution of Student Posts in Group D, Section 076

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
1	25	Student 1	11	44
		Student 2	8	32
		Student 3	4	16
		Student 4	2	8

Table 6.23: Distribution of Behavior Categories in Group D, Section 076

Total Posts	Behavior Categories	Number	Percentage
25	Planning	4	16
	Contributing	14	56
	Seeking Input	7	28

	Reflection/Monitoring	0	0
	Social Interaction	0	0

Group D was similar to the previous group in that it had a slow start to the project. The group was still discussing two topic choices for the project on the same day that the first part of the assignment (the usability tests) was due. Another issue arose based on the topic they selected for the project, making Kool-Aid. Any topic besides making a paper airplane or building a Lego structure had to be approved by the instructor. Since they did not decide on the topic until the day the usability tests were due, they did not receive any feedback from the instructor until the day after. The instructor responded, “I think those tasks are both a bit too simple for you to be able to flex your technical writing muscles. Try to pick something with a fairly large number of steps and a bit of complexity so that I can see that you were able to make good instructions.” By the time they received this response, the group had roughly four days to select a new topic, draft instructions, perform usability tests, and make the necessary revisions. From this point, the group seemed to work on different parts of the assignment independently and post their contributions to Google Docs. This was another forum that seemed to end abruptly, with a group member posting two hours before the assignment was due asking for her group to look over the final draft of the assignment. While there may have been some communication via email, there were no other posts to the forum and the shared Google Document was abandoned by the group near the end of the project due to formatting issues with the images. It is also interesting to note that all the forum posts of this group took place on one thread as seen in Table 6.22. This made the communication throughout the forum a little difficult to follow as it covered a variety of sub-topics

without much organization, and may have affected the behavior categories displayed in Table 6.23.

Section 076 – Group E

Table 6.24: Distribution of Student Posts in Group E, Section 076

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
3	20	Student 1	6	30
		Student 2	7	35
		Student 3	5	25
		Student 4	2	10

Table 6.25: Distribution of Behavior Categories in Group E, Section 076

Total Posts	Behavior Categories	Number	Percentage
20	Planning	3	15
	Contributing	12	60
	Seeking Input	4	20
	Reflection/Monitoring	1	5
	Social Interaction	0	0

This group had the fewest posts to the forum out of any group from both sections of WRIT 3562W as seen in table 6.24. Additionally, the members of this group were unique based on how there were multiple members that contributed posts that felt like a “group leader” style. The first post of the forum addressed selecting a topic and selecting roles for each group member. This post also noted the time limitations of the project, and

consequently discussed using the paper airplane idea in order to get the project started as soon as possible. The second post came from another user that stressed the importance of following a schedule based on the time frame of the project. This group member also stated, “Let’s find out how many people we have in this group, then attempt to split up tasks evenly. Once we know everyone in the group we can also create a GoogleDoc.” It is interesting to note that this group did not know how many people were in there group, which seemed to create a small obstacle in them moving forward with the project. The tone of the first two posts demonstrated a sense of authority by writing in a manner that seemed to leave little room for discussion among the group members.

The last member to respond to the forum also demonstrated an authoritative tone posting, “[...] Based on the discussion in the intro forum, it seems that we should go with the paper airplane task. There isn’t much time, or apparent need, to come up with a new idea and have it approved. Below I would like to discuss what I feel are necessary roles for the group based on the requirements of the assignment [...]” The remainder of this post provided very specific guidelines on what each role should contribute to the project. Despite this authoritative tone, this group member contributed only one additional post to the forum (which asked for access to the Google Doc) and then was absent for the remainder of the forum. This was the only group that had three group members write with such authoritative tones that seemed to demonstrate multiple “leaders” within the group.

The last six posts were part of a thread titled, “Changes,” which was meant to be an area to discuss the usability tests and revisions. However, only one post referred to any revisions while the remaining posts asked about the submission details of the

assignment. Group E’s forum ended abruptly without much content regarding the final draft of the project. Without access to this group’s Google Doc, it is impossible to ascertain who contributed what to the project, but it is interesting to note how little the forum was used beyond some posts that attempted to organize the structure and roles of the project.

Section 076 – Group F

Table 6.26: Distribution of Student Posts in Group F, Section 076

Number of Threads	Total Posts	Student	Student Posts	Student Percentage
1	38	Student 1	13	34.2105263
		Student 2	16	42.1052632
		Student 3	8	21.0526316
		Student 4	1	2.63157895

Table 6.27: Distribution of Behavior Categories in Group F, Section 076

Total Posts	Behavior Categories	Number	Percentage
38	Planning	3	7.89473684
	Contributing	29	76.3157895
	Seeking Input	5	13.1578947
	Reflection/Monitoring	1	2.63157895
	Social Interaction	0	0

Group F’s had the most posts out of all the groups in Section 076 which is shown in Table 6.26. Despite having the most posts, this group used one thread throughout the

whole project. Although one group member took the lead in initiating the activities, three of the four group members did well to collaborate together in a balanced manner throughout the project. This group's specific strength seemed to be completing drafts of the different components of the assignment early, and then using the forum to look over drafts and revise them as a group. This process helps explain the high percentage of Contributing behavior to the forum (see Table 6.27). Even with only using one thread within the forum, the communication was well organized and conducted in a clear sequential manner. Initially, a lot of the posts included signatures and were laid out in a format similar to a formal email, but during the project transitioned to something that was more informal. The balanced effort between three of the members seemed to depict a group that got stronger as the project progressed. One group member posted to the forum late into the project providing feedback on the current state of the project and the results of his usability tests. The group tried to incorporate him into other aspects of the project, specifically composing a portion of the reflective memo, but he failed to contribute anything else to the project. This group's forum provided a little more closure by including a post with the final draft of the project, and one final post commending the effort of the group and the satisfaction with the project.

Exploring the Effects of Digital Pedagogy on Sections 075 and 076

Although there were a lot of interesting trends that happened within each group, there were no major differences between Sections 075 and 076 as a whole. Instead, each section contained groups that seemed to excel within a digital environment while others had trouble starting the project and working together as a group. It is important to make the distinction between groups that had problems with this assignment due to variables

that had nothing to do with the technology (e.g., late start, absent members) versus groups that were affected by the limitations present in a digital classroom. Based on the analysis of the group forums, there were three aspects of communication that were affected by the online environment: the presence of a leader, the conversational patterns of the group forums, and the ways in which students used supplemental technologies. Each one of these items will be discussed in more detail concluding with a section that contextualizes these items with the student moderator reflections and the idea of student interaction.

Conversational Patterns

Despite the use of pre-existing small groups and group moderators, the conversational patterns were very similar among all twelve groups analyzed. The most visible behavior category was “contributing” followed by “seeking input”. While it is not surprising that these two behaviors are the most predominant based on the need to exchange information, it is interesting to note that “contributing” behaviors were dramatically higher than any other behavior pattern. Compared to conversations in the traditional classroom that tend to exhibit a more balanced dialogue between contributing input and seeking input, communicational exchanges in digital environments lean more heavily on contributing something to the discussion. This may occur due to the asynchronous nature of online courses in which a back and forth dialogue takes too long to develop so students continually add things to a discussion and only seek input when necessary. Additionally, the ability to create different threads provides students with the opportunity to participate in multiple conversations that deal with different topics. One of the most pressing questions becomes whether or not this constitutes an effective form

of communication. Communication seems effective in groups that are well organized and utilize forum threads for distinct purposes, but many of the groups that communicated within one or two threads seemed to have trouble. The problem with using a limited number of threads was that there were so many posts that covered a variety of topics that posts “seeking input” were often buried and never responded to.

Another interesting observation that appeared within every group’s forums was the lack of any “social interaction.” There was not a single post from all twelve groups that discussed anything outside the context of the group project. This has potential ramifications on how students function as a group and differs greatly compared to a traditional face-to-face classroom. In face-to-face courses that I have taught, group work has included a lot of socially interactive discourse that has nothing to do with the assigned task. The presence of social interaction may seem counter-productive, but at the same time it provides students an opportunity to bond, invest in each other as well as the project, and can help establish group roles. The complete absence of social interaction provides a unique environment in which students may have to find new ways to establish their presence and roles within a group. In addition to the absence of social interaction throughout all twelve groups, there were also a very small number of posts classified as the “reflection/monitoring” behavior category. Again, this demonstrates another discourse situation that seems unique within a digital environment compared to traditional face-to-face courses. While the majority of groups provided at least one post that exhibited reflective characteristics, it was interesting to note that there were so few posts that reflected on the group process and quality of the final group projects. Groups essentially disbanded immediately after a final draft was completed and this seemed to

reduce the presence of student interaction throughout this project. Perhaps the most interesting findings were from groups that seemed to stop abruptly in the middle of an ongoing discussion. The discursive patterns among all twelve groups seemed to illustrate the inherent challenges of promoting student interaction in online environments.

Leaders and Technology

While a significant portion of the group project relied on how students used the available technologies, the most important element that seemed to emerge from the project was whether or not a group leader emerged within each group. Section 075 performed better than Section 076 in regards to establishing group leaders, and this seemed due to the inclusion of weekly group moderators. The presence of a strong group leader benefitted the groups by initiating group activities, constructing a timeline and due dates for different portions of the assignment, creating group roles, and organizing the forum. These elements were crucial based on the time limitations of the assignment and the slower nature of asynchronous communication. Section 076 did have some individuals who assumed leadership roles within the groups, but the assigned role of group moderator within Section 075 produced expectations on a certain student to take the lead on organizing the project. Assigning roles seemed effective due to the somewhat tentative nature of group work in which some individuals do not want to come off as controlling or demanding--something that may be exacerbated by the lack of social cues in digital environments. Additionally, the pre-existing system of small groups and rotating moderator duties may have provided a sense of familiarity and structure that benefitted Section 075 more than the randomly assigned groups of Section 076.

Another component of the group project was how groups used communicational technologies. Each group was provided a forum space within the course Moodle sites, but were also free to choose any additional technology to help them complete the project. Google Docs was used by several groups, but this was most likely due to the fact that it was highlighted within the actual assignment prompt. It is interesting to note how many of the students, based on their comments within the forums, had no previous experience with using Google Docs. Google Docs seems to be one of the more ubiquitous technologies used within academia, especially since many schools (including the University of Minnesota) use Google as their email/communication system, but several students were novices with the technology. Additionally, there are a vast number of digital communication tools that are available, but students did not use these within their groups. Only two groups noted using any additional technologies which happened to be the chat system imbedded within Google Docs and G-chat.

Even though instant messaging technology is relatively old, the opportunity to host synchronous communication seemed to help both groups that used it. With the emerging video technologies (e.g., Google Hangouts, Skype, Facetime, WebEx), questions arise on whether or not we should incorporate these technologies more into online courses, how do we introduce these technologies to students, and how much time do we dedicate to teaching technologies that may not have anything to do with the course curriculum. The use of synchronous technologies could provide an opportunity for students to overcome some of the obstacles facing student interaction in online courses.

Moderator Reflections

During the course of the group project, each group's moderator from section 075 was required to submit a reflection that answered questions about that week's work. The first question asked was, "What strategies/techniques did you utilize to benefit your group this week? Refer to the type of activities completed this week (forums, discussions, peer reviews, group project, etc.). How did your contributions help the group?" A common theme brought up in each response was the idea of taking the lead on the project in terms of initiating activity on selecting a topic, creating tasks that needed to be completed, and setting up a series of deadlines to make sure the group project was completed. Additionally, the idea of "presence" was referred to in a couple of the responses. The combination of the project representing a large percentage of each student's grade and the short amount of time to complete it provides a situation in which students seem to feel the need to increase their presence in the digital environment of the course. The group moderators responded with the following answers (with passages that refer or related to "leadership" or "presence"):

- I was and still am the moderator for week 8 until this Sunday. This week, to better facilitate learning and communication, I was on the discussion board actively talking to all group members about this directions and usability [sic] assignment. I also put forth questions about who was going to complete what as well as reminders for when things were do. I also set up a google document for our group, added people, and have been having people work on that throughout the week as well. I utilized the discussion board to help facilitate conversation and ideas within our group and the google doc to further put together our assignment/group project.
- This week I tried to take control and guide my group through the group instructions assignment. I came up with the schedule and who would review which sections. My contributions got the group moving and started on the assignment.
- Although I was under the impression that I was a moderator last week, I really was a key part in making sure our instructions assignment was getting done and on time. We had a great discussion going in our instructions forum and after

starting a google document, things went pretty quickly from there. Everyone put in an equal amount of effort, and it was a great collaboration. My personal contributions helped to finish our user testing and format the design of the instructions. I edited each document and the memo when it was submitted, so I really had a role in making sure everything turned out well.

- This week I was responsible for initiating the discussion in regards to our group instruction project. Since this is our first “group” project we've done, I wanted to create a forum with clear and concise deadlines so that everyone was on the same page in regards to what needed to be done when and by who. I set up the initial discussion thread in a logical way with clear instructions and listed “deadlines” so there was a coordinated effort in what was happening within the project. I likewise came up with a way to split up the roles in the project so every participated and contributed equally. It will be interesting to see how well this works for our group project, so I can't decide just yet how this has helped my group to grow.
- As moderator for our group project, I tried to take the lead on what the group as a whole should be doing without taking over the entire project. My strategy was to start the conversation on how we could break up the responsibilities for our project in the group forum. I offered up my opinion on how things should be split, and the rest of the group agreed. I wanted each person to personally take on a task, and then the rest of the group would help them through reviews and edits. I emphasized that people should take on a task that they felt would most benefit the group. I said that as a graphic design student, I thought my strength would be in creating the illustrations and layout for the instructions. I was thankful that everyone was eager to sign up for a task, and even kept the conversation going on personal timelines so we could get the project done on time.
- As a moderator of group (F) this week, I had the responsibilities of using a few different strategies and techniques. Some of the techniques I used to benefit the group was by starting a conversations on the Moodle website under the “groups general instruction forum” to brainstorm ideas and topics before starting our project. Some of the activities completed this week were a group project on a topic of our choices and a memo. I was able to keep the conversation going by checking the Moodle site constantly and coming up with ideas to talk about. I also coordinated on ways to approach steps needed to take in completing the project. Finally, I divided responsibilities within the group.

For each moderator, a key component to helping their groups complete their objectives was by taking a leadership type of role in getting students involved with the project and trying to maintain a consistent level of participation and presence from all the group members.

The second question of the group moderator reflection response asked, “Describe the most positive contribution from a group member this week. Why was it so beneficial/insightful? Some examples might include: student X's comment on the forum really pushed the discussion to examine [...], student Y offered really strong advice on her/his peer review by [...], student Z took the initiative on our group project by doing [...], etc.” While I will not include all the responses from the moderators to this question, the answers provided detailed examples of how specific students worked and collaborated together on this project. Some of the comments provided examples of a collaborative effort including “she not only asked a lot of questions but also volunteered to put together what each of us should do” and “she (since we thought she was the moderator) did a fine job of keeping the discussion going and making sure everyone was participating.” These types of comments appeared in the majority of the moderators responses and demonstrated a higher level of collaboration between students compared to any other week of the semester. The moderators comments can be seen below with any specific reference to collaboration highlighted in yellow:

- I would have to say Lily was the most positive contribution [sic] to the group this week because she not only asked a lot of questions but also volunteered to put together what each of us should do and conducted a usability test. So she really took initiative with the group project.
- Britney’s comments on the instructions I came up with for the assignment really helped me to realize that they weren’t specific enough. Also, she brought to my attention that I forgot to include the required materials in the instructions.
- I would say the most positive contribution was from Maya. From what I gather, I don't think English is her first language, but she (since we thought she was the moderator) did a fine job of keeping the discussion going and making sure everyone was participating. She made sure that we had a topic and kept us on a good time schedule and also made sure everyone was doing something to complete the project.
- Kara took the task of writing the instructions, and put them in a Googledoc so everyone could view and edit them. When the text was done, I created illustrations and posted them in a new discussion topic. Aimee did user testing

throughout the process, some with just the text, after the text was edited, then with the text and the illustrations together. Jess made a really good point in the reflective memo about how doing user testing throughout the process was really beneficial to our group's analysis of our work.

- One most positive contribution what was made from our group was by the student Melissa, in completing the Usability test. The usability test was by far the most beneficial part of the project because it allowed us to make positive corrections on the overall project. **She had taken the initiative in picking individuals to conduct an educational test in which she was able to provide us more positive feedbacks.**
- The most positive contributor this week was Riley. She was the one who started the form and gave ideas of what possible topics we could work on together. **She offered topics and was ready to respond to the thread with insights and comments.**

In addition to comments targeting members or users taking the lead on a specific component of the project, these moderators focused a lot of their attention on noting individuals within the groups that made sure the group was working together in a collaborative manner.

The final question of the group moderator reflection asked, "Describe what your group's dynamic was like this week. Some examples might include: our group's dynamic was very collaborative based on how we all performed on [...], are group worked independently of each other because [...], are group felt disjointed based on how we [...], etc." Despite the fact that each moderator felt they did well on taking a lead on the project and providing strong examples of other group members' contributions, the overall quality of group dynamic differed significantly. Some moderators discussed the overall level of success while other moderators talked about issues they had within her/his group:

- This week there was a lot of good discussion and planning going on within the group, **really good group dynamics. We were all very collaborative** and really putting forth effort each doing our part in the group project. There was also a lot of **good communication** with not only who is doing what for the group project but asking a lot of good questions along the way. All in all, it's been a good two weeks and I can't wait to see what our final project will look like!
- **Our group felt a little disjointed this week.** The assignment came up pretty quickly and I'm not sure our deadlines were appropriate for the amount of time we had. Everyone had to wait for someone else to finish their part before they could begin their own. I tried to get everyone involved right away in deciding what type of

airplane we would create and how we would go about doing it but I ended up making those decisions on my own.

- Overall, I thought this week was our **best communication week as a group**. Because our project depended on how each person's participation was, everyone really made sure to keep up with the forum and to check back each day for new messages. On other weeks, **we usually don't get a good discussion going because we don't necessarily need each other to finish the project**, so it was nice to have a collaborative effort this week.
- Overall, **our group was the perfect balance of independent and collaborative effort**. Everyone stepped up and took on their individual tasks, but also helped out everyone else with their work through critique to create a great group project.
- This week was **a bit lagging in contribution from one member**, she did not participate in the form at all, which is disappointing because she will have to take part of the writing assignment and she may not have a role in the paper due to the lack of participation. Otherwise, everyone else participated and was responsive.
- **Our group's dynamics was very good**. We all had a chance to communicate our comments and feedbacks through Google Doc's, and contribute positively in successfully completing our project.

Despite the fact that groups differed on how effective their groups' dynamics were, the group project provided an opportunity for each group to create a discussion that lasted for a sustained amount of time. The final section of this chapter reflects on these discussions and contextualizes them with the idea of student interaction.

Factors Affecting Levels of Student Interaction

In thinking about the level of student interaction within the group project, it is important to think about it in relation to factors that affect it including the design of the project, the time frame of the project, and the grade impact. These three things each had a direct influence on how each group interacted throughout this project.

The design of the assignment affected how each group worked on the project based on the assignment prompt and the required components of the assignment.

Although the assignment clearly requires group work, it does not specify a certain style of conducting the group work. This point leads into whether or not the type of student

interaction required collaborative or cooperative group work. Trena M. Paulus (2005) differentiates between the two types of group work by defining collaborative work as a process in which group members work together (often in synchronous environments) to construct knowledge through discourse. The idea of cooperative work differs in the fact groups choose “to divide up tasks, complete them individually, and then combine the independent efforts into a final product” (p. 113). While both styles of group work exhibit a form of student interaction, the type of work (collaborative vs. cooperative) drastically affects the communication exchange.

Based on the forum discussions analyzed in this assignment, the vast majority of student interaction incorporated a cooperative group approach. This was evident among each groups’ work based on how they broke the assignment down into smaller tasks (e.g., writing the instructions, creating graphics for the instructions, conducting usability tests, composing the reflective memo, etc.), and combined them for the final submission of the project. However, while the majority of tasks were completed individually, many of the groups did review each others’ work which offers some level of collaborative learning between the group members. The ways in which the group project was designed and interpreted by students had consequential effects on how the group forums were used, and consequently the types of interaction that occurred between students. As seen in the descriptive overviews of each groups’ forum, a basic pattern emerged in which students collaborated on selecting a topic to create instructions for, cooperated on completing individual activities, and for some groups reassembled to collaborate on the editing/revision process of each part of the assignment. This pattern helped construct a kind of interaction between group members in which members contributed updates on

their portions of the assignment as well as ask questions to help complete their tasks, but the types of discourse were limited more to status updates than a dialogue between members. Another factor that influenced the level and types of interaction between students was the time frame for the assignment.

The course schedule included the message “Greet your group and discuss potential topic in ‘Your Group’s General Instructions Forum’” on October 19th, 2012 with Assignment 5 being due on October 29th, 2012. Additionally, each group was expected to have a rough set of instructions, two usability tests, and a reflection on the usability tests completed by October 24th, 2012. Having roughly ten days to complete the assignment seemed to provide its own challenge to each group and also affected the types of interaction within the forums. As seen in both sections, 075 and 076, the use of asynchronous communication took time to develop the idea of presence within the group. Most groups seemed to wait for every group member to contribute some form of communication before selecting the topic, and consequently most groups had not agreed on a topic until two or three days into the assignment. The length of time needed for asynchronous communication and the relatively short timeframe to complete the assignment seemed to also be a factor in leading groups to proceed using a cooperative method of work for the project. A lot of the groups addressed the deadlines for the assignment within the forum, and used the deadlines to determine a schedule and establish roles for group members. One of the effects of this process was that students were assigned to complete certain components of the assignment, but not have much of a role in the remaining parts. The only groups that were able to “reassemble” and take a more collaborative approach in editing and revising their instructions as a group were

also the groups that got off to a fast start. While increasing the time frame of the assignment may not change the cooperative style of work among online groups (Paulus, 2005), it does provide an opportunity to transition to a collaborative approach and affect the overall level of interaction between the students.

A final factor that may have affected how students engaged with each other throughout this assignment was the grading. The overall value for the *Unit 5 Assignment: Instructions and Reflective Memo about Your User Test* was 60 points or 12% of the course grade. This point total is comparable to the points for peer reviews or class forums (worth 50 points or 10% of the course grade), but differs based on how these points are assigned for one project rather than a series of assignments/tasks over an entire semester. Additionally, the fact that individuals were graded as groups seemed to encourage a certain level of participation/presence from group members. While the grading may not have influenced the types of communication or interaction within each group, it did seem to create a sense of urgency in which the majority of students offered more contributions to the project.

Based on the overall analysis of the group project for sections 075 and 076, it is difficult to determine how much the inclusion of small groups and group moderators affected the level of student interaction between these two classes. Section 075 did have on average more posts for each group than Section 076, but the sample size was so small that this cannot be utilized as a general claim. Likewise, the inclusion of group moderators did seem to have a positive effect on establishing a group leader and getting the project started, but students also emerged to fill the same type of role in Section 076. The factors that seemed to affect the quantity and quality of student interaction the most

was the design of the assignment, the time frame of the assignment, and the grading impact. It is also important to note that there may have been additional communication using tools like Google Docs and Google Chat which may have exhibited different types of interaction not displayed in the group forums. However, based on the content within the forums, the group moderator reflections, and the forum groups, the main conversations were held within the Moodle forums.

While I was not interested in examining the quantity of words within each group’s forums, I have included Table 6.28 below to further contextualize the idea of student interaction in online environments.

Table 6.28: Number of Words Written in “Your Group’s General Instruction Forum”

Group	Section 075	Section 076
Group A	1071	1025
Group B	2857	2293
Group C	1455	1316
Group D	3475	1092
Group E	2904	1421
Group F	1614	3030
Average	2229.33	1696.17

As you can see below, Section 075 had a higher average of words used within each forum compared to Section 076, but the quantity of words does not necessarily reflect the level of content within each group’s posts. Instead, I included this table to compare the idea of online courses and asynchronous communication to traditional face-to-face courses.

Several sources note that the rate of speech per minute in conversational settings is somewhere between 110-160 words a minute. Comparing the average level of words used in the groups forums to the low end of words per minute in a face-to-face conversation, it would only take a little over 20 minutes for Section 075 and around 16 minutes for Section 076 to discuss the same amount of content that was discussed in ten days in an online/asynchronous environment. This example illustrates some of the complexities of fostering rich and interactive discussions within online courses.

The last chapter examines the results from the last three analysis chapters and contextualizes them in relation to the main research questions addressed in the introduction of this dissertation. It also provides a brief look at some revisions that could be made to the small group/group moderator structure and how the idea of student interaction may be affected by the evolution of current technologies.

Chapter 7: Conclusions on Student Interaction in Online Environments

Looking Back to Questions Posed

In the first chapter of this dissertation, I posed the following two research questions as the basis of my analysis:

- How do small groups and moderators affect student interaction in online writing courses?
- What course design choices lead to positive student interaction in online writing courses?

In order to answer these larger research questions, I also developed three sub-sets of research questions in the analysis chapters that were developed to analyze student interaction with very specific elements of the WRIT 3562W course. Overall, I believe that the findings from my analysis chapters provided some insight towards answering my main questions of how small groups and group moderators affect student interaction and how course design choices can benefit student interaction. The remainder of this chapter will discuss the two main research questions in relation to my findings within each analysis chapter as well as contextualize them with responses taken from the students from WRIT 3562W. I will then review the importance of the idea of student interaction within online courses in higher education, and then conclude with looking at potential ways to further explore the idea of student interaction in the future.

A Look at Student Interaction and Peer Review Activities

The inclusion of small groups and group moderators did not seem to have much effect on the role of student interaction within Section 075. There were no dramatic differences in the types of peer review comments being made within the pre-existing

small groups versus Sections 076 and 077 over the course of the semester. Additionally, there were no consistent trends in the quantity of feedback between all three sections of WRIT 3562W. These findings lead me to conclude that small groups and group moderators had little effect on student interaction in Section 075.

While the use of small groups and group moderators did not have any profound effects on student interaction, the course design choices did seem to have minimal effects on how the students completed the peer review activities. The final submissions for Assignments Three and Eight took place outside of the Microsoft Word environment. While some students still posted their drafts and/or reviews using Microsoft Word, there were several posts within Moodle by students. The students who wrote reviews in the Moodle environment seemed to offer more summative and non-directed comments--most likely because it was not as easy to single out specific passages while writing in Moodle. Additionally, Assignments Two and Seven, which consisted of much more writing than the rest of the assignments, obtained much more feedback on average than the other assignments. This point may be due to the fact that students could not think of as much feedback for the “shorter” assignments or they did not feel as comfortable reviewing material that extended beyond the traditional text based student written essays.

One potential problem associated with the peer reviews is that a number of students do not see them as helpful or interactive. For example, one student commented on the fact that “it’s hard to really trust the person that is reviewing your work because I don’t know how good of a writer they are [...]” Meanwhile, there were other students who described how they barely looked at their peer reviews or did not look at them at all before submitting their final drafts. There were still a number of students who posted that

the peer reviews were one of the most helpful aspects of the class, but it seems that there is room for revisions to make them effective for more students.

A Look at Student Interaction and Class Forums

While the use of small groups and group moderators did not seem to have any major effects on how students completed the peer review activities, small groups/group moderators made a big difference within the class forums. The differences between Section 075 and Sections 076 and 077 were visible in two ways. First, Section 075 had several more forum posts than Section 076 and 077. While this does not necessarily demonstrate student interaction, it does constitute an environment in which there is more potential for interaction through the increased numbers of posts. The second difference was apparent in the types of posts students were making in Section 075. Section 075 contained several more posts that were classified as “Minimal Reply” or “Reflection Addition,” and showed a much higher level of interaction compared to Sections 076 and 077. The presence of these types of comments provides evidence of students interacting with each other in relation to a forum prompt rather than just interacting with the forum prompt. Additionally, there seemed to be a more balanced level of interaction within the small groups compared to Sections 076 and 077 that conducted the forums as an entire class. The group moderator role seemed to play a large role in this observation due to the fact that the group moderators were responsible for leading a discussion amongst all the members of their group. The analysis of the class forums illustrates that the inclusion of small groups and group moderators increases the level of student interaction among class forums.

There were also course design choices that played a major role in whether or not there was a high level of student interaction between the students. WRIT 3562W had forums that I categorized as either “task-based” or “discussion based”. The “task based” forums consisted of prompts that encouraged more of a response from students whereas “discussion based” forums included prompts that did more to encourage interaction among the student posts. Based on the results from the analysis of class forums, instructors have the potential to influence the level of student interaction by thinking about the type of forum they want to create for their classes. Making small adjustments to the forum prompts can have profound effects on how students complete them. Essentially, instructors need to be explicit about wanting students to interact with each other on class forums, otherwise students do not infer that they are suppose to interact with their classmates. Additionally, many students commented on how much is due throughout the course of the semester and as a result do not post contributions to the class forum until the day they are due. The amount of assignments as well as the time it takes for conversations to develop in asynchronous communication environments is something that is addressed later in the chapter while discussion potential modifications to increase the level of student interaction.

A Look at Student Interaction and Group Projects

The use of small groups did not seem to have a major effect on the level of student interaction within group projects, but the group moderator role did seem to have some positive effects on the level of interaction between group members. The groups in Section 075 did seem to have good chemistry for the group project, but the groups from

Sections 076 (Section 077 was not analyzed in relation to the other two sections) had good chemistry too. One potential reason for the fact that all groups seemed to work similar to each other was due to the fact that the group project took place over a short amount of time and accounted for a significant part of the course grade. Due to this situation, the majority of groups in all three sections of WRIT 3562W demonstrated a similar level of student interaction.

However, the role of group moderator seemed to play a more significant role for this part of the course. While all three sections of WRIT 3562W did well with this assignment, the groups in Section 075 tended to have stronger starts on the project. In observing all the forums that were dedicated as a space for groups to collaborate on their projects, many of the groups in Sections 076 spent more time selecting a topic or organizing deadlines for the assignment. A lot of this seemed to be due to the fact that no one wanted to seem too controlling. However, the role of group moderator seemed to bypass this issue because one group member was assigned to take on the leadership/organization duties for the project. It is important to note that many “leaders” emerged naturally in Section 076 which had similar effects to the group moderator role in Section 075, but the role of group moderator seemed to enhance the progress and depth of student interaction among all the groups.

The design and structure of the group project did have effects on how the work was carried out by the students. Several students commented on the very small window of time provided to complete the group project, and consequently this changed the overall nature of how the projects were completed. While the assignment prompt requires a collaborative effort among the group members on the project, the short amount of time

created an environment in which projects were broken down to individual tasks and then reassembled for the final submission of the project. This point demonstrates more of a cooperative style of work versus a collaborative one. Another reason that this style of work may have occurred is due to the nature of communication in the Moodle environment. A forum was the primary space for communication between most groups and the asynchronous nature of this digital environment seemed to feed into a more cooperative style of effort between the group members. Finding a way to incorporate different communication technologies (i.e., Google Hangouts, Instant Messaging software, etc.) may affect how groups go about completing the project and consequently change the nature of student interaction for this component of the course. The next section transitions from my perspective of what I saw while analyzing student interaction within the course to the students perspectives of how the use of small groups/group moderators affected their completion of WRIT 3562W.

Student Perceptions from Section 075 - Thoughts on Small Groups

This section takes a look at the specific feedback that students from Section 075 had regarding the roles of group moderators and small groups. Although the analysis chapters demonstrates that the inclusion of small groups and group moderators at least increased the levels of student interaction, students had mixed reactions regarding how these two things affected their perceptions of the course and what they learned. While there were several positive comments collected from the surveys and focus groups, there seemed to be a majority of students that had indifferent or negative feelings towards the use of small groups. The positive experiences covered a variety of topics of why small groups were positive/beneficial. For example, one student stated how “I liked the small

group. It's like we knew each other without having met. We were comfortable to share our opinions." One of the goals for including small groups within an online setting was an attempt to mimic the types of relationships that might be created in a traditional face-to-face classroom. Based on this student's response, the inclusion of small groups has the potential to build more effective interpersonal relationships in other online courses. The idea of being more "comfortable" was also addressed in another student's response:

I think it changed how I would normally approach things in a good manner. With having the same group all semester I was not afraid to express how I felt things should operate. At first when I was group moderator I assigned everyone to the papers to peer review. Second time I was like just choose whoever you want. We got to know one another and were able to collaborate and get things done. If I had to choose a forum to respond to in a group of 40, I'd probably just click a random one, and not read everyones [sic].

Not only does this student mention that he was "not afraid" to express things to his group, but he notes that in a larger group he would not take the time to read all of his classmates posts. In a sense, this student had an increased sense of accountability within the small group setting.

The idea of accountability was something that multiple students noted in their comments. For example, one student wrote, "I had a pretty good group and we were honest and helpful towards each other and I think we all wanted each other to do well in the course," while another student described how, "When it's a huge group of people, I don't really care how well I do things, but when it's a small group of people, I care more

about the quality of my content.” Two types of accountability are addressed in these observations from the students. One type of accountability is based on how much effort a student puts into her/his work within different environments (small vs. large groups) while the other type of accountability takes into account putting in an effort to better every member of the group. These types of positive observations demonstrate why and how increasing the level of student interaction can be useful in learning in online environments (as well as other learning environments). The role of small groups has the potential to affect how students learn and interact within online environments.

Other students remarked on how the inclusion of small groups increased the level of interaction between students, but did not believe that it affected how or what they learned in the course. One student described her experiences as, “I did interact more with my classmates in WRIT 3562W than in the other online classes I have taken. My interaction was because of the small groups we were in. I don’t think it affected my learning experience.” For this student, interaction with her classmates had no bearing on how or what she learned in the course. Other students offered different perspectives on how small groups increased interaction with each other, but did not really add anything to the class. In being asked whether being placed in small groups changed how you approached WRIT 3562W, one student pointed out that “To some extent yes because I knew that one girl would always review my papers well or put in a lot of effort, so it made me want to do the same. At the same time some of my group members barely posted, so it didn’t really change anything [...]” It seems that this student may believe that small groups could benefit the effort put into a course, but the lack of effort among all group members was necessary to sustain a higher level of effort.

In opposition to the students who had experiences with their small groups that were either positive or indifferent, there was a large number of students that discussed the negative experiences they had with their groups. One student in particular seemed to post on the various issues with small groups that negatively affected her experience with the course:

I had some struggles with my small group. One group member went totally MIA for about three weeks. They neglected their moderator role, setting the group back on the instructions assignment, and did not peer review a group member assignment. After they missed helping with the instructions, they wanted the same grade as the rest of us. It was very frustrating. And then a second group member did not follow direction very well. They completely ignored the directions for one assignment and did it completely wrong. They also were not very good at peer editing. They never had anything helpful to say other than this is good and so is this. It was frustrating when I felt like we had many resources available to us on how to effectively peer edit. They must not have read any of them and if effected [sic] the whole group.

Within this post, the student points out issues related to the class forums, the group project, and the peer reviews. For class forums the absence of participation or late participation was commented on by several students, specifically in how it made it extremely difficult to construct an in-depth discussion. As the last student's post describes, there were multiple examples of students who did not contribute equally to the group project. In several cases, there were groups that felt that one member should not

receive the same grade as the rest of the group, and were frustrated with the process of the group assignment. Finally, there were multiple issues concerning the peer review assignments of the course. As the student stated above, the comments that she received were general praise that did not give her anything to work on or revise within her writing. Another idea that was touched upon by students regarding the peer review activities was the idea of trust. Several students described how they did not trust the types of comments received by their peers, and only trusted the feedback received by the instructor.

Several students posted comments pointing out the negative components of small groups within Section 075, but it is important to contextualize these issues in regards to other online courses. As noted in related scholarship (see Chapter Two) and sections 076 and 077 of WRIT 3562W, the same negative issues pointed out by students in Section 075 frequently occur in other online courses too. The inclusion of small groups does not create the negative experiences that these students had. Instead, these are issues that frequently occur in online courses. However, the inclusion of small groups (especially groups in which there is not an equal amount of effort between the group members) may act as an environment that can exaggerate these issues. For example, a discussion between four students suffers more when one student does not participate versus an entire class discussion in which one or students do not contribute to the discussion. One reason for the lack of participation among group members may be due to how some students perceive online courses. Several students noted that the reason why they take online courses is because it allows them flexibility and to be an independent learner. One student commented on this idea stating, “As far as my personal knowledge is concerned, I didn’t learn anything more by being with other students. They in no way contributed to

me gaining anything from this course. I gained writing skills by reading the book and reading the professor's feedback [...]" This type of attitude, which seems to be expressed by many online learners, reflects a method of learning in which students perceive that they do better by interacting with course materials but not other students. While students may learn better independently, a student made the observation that "[...] I guess working with a group and working with other people that you may or may not trust is going to be something that you have to do a lot in the real world so I think it is good that we get the experience [...]" I believe that the results from my analysis chapters demonstrate how the inclusion of small groups does make a difference within online courses.

Student Perceptions from Section 075 - Thoughts on the Group Moderator Role

Students had a variety of comments regarding the role of group moderator and how it affected their experiences in Section 075. Similar to the inclusion of small groups, students had a range of reactions about the role of the group moderator ranging from it being busy work, helping students take leadership roles, or it having no effect at all. One student claimed that, "It [group moderator role] keeps me on track with the course and I felt more obligated to be engaged with course discussion," while another student noted how "Being a Moderator made me use more effort in those weeks in order to lead and continue group discussions." In both of these instances, the students remarked on the fact that being the group moderator required them to have more of a presence in the classroom and engaged with the material and their group members.

In addition to being more engaged in the course, multiple students commented on how being the group moderator made them take on leadership positions within the

course. Speaking about the group moderator role from a general perspective, one student noted how “[...] I think it is good that there is a role kind of given out to leading some thing, it gives some students who maybe don’t normally take leadership roles a chance to have a little one or something like that so I see where it could be beneficial.” Another student provided a response that seemed to demonstrate this very point in which the student expressed, “I was the group moderator for the group project, which I surprisingly enjoyed doing. I was able to suggest what I think we should do, and step up and do what I wanted to do, which was the graphics [...]” For this student, the role of the group moderator provided an opportunity for him to “step up” and take extra responsibility in making sure that the group project was completed. Several students noted how the role of group moderator had them interact with the class (and their classmates) in ways that seemed novel compared to other online courses.

There were other students who felt more indifferent or negative towards the group moderator role. For some students, it had little bearing on how the students interacted with the course material. One student pointed out that, “For some things, like peer reviews, it was effective to have someone assign the reviews but for other discussions it was hard to be in charge, it turned into a more question and response forum instead of a discussion.” So while this student noted how the group moderator role could be effective, it was only for a single post that organized the peer review activities. This point may make Section 075 a little more functional, but it does little in terms of contributing to the level of student interaction within the course.

Other students were more critical of how the group moderator role fit in with the course. For example, one student admitted how, “The weeks I was group moderator

seemed pointless. On the reflection of group moderator I didn't really have much to say. I started the forum a day or so early, but people still didn't respond till day it was due. (Can't blame them, I usually did the same thing)." Despite this student's efforts to foster an engaging discussion, the nature of students was to post to the discussion forums on the days they were due leaving little to no time for a conversation to emerge. Perhaps a more important point to take away from this student's observation is that although he was aware of the need to post early to create a discussion, he failed to do so if he was not the group moderator. One student was even more explicit claiming that "I hated the group moderator role. When the role was only to lead discussion, it seemed that the other members did not respond like we were having a discussion. So it never got anywhere. We didn't really even do the group moderator role during the assignment because we got lost in the assignment and forgot all about it." The status of how students perceived the role of group moderator relates directly to the state of the group.

Students' reactions to the inclusion of small groups and group moderators varied greatly between a spectrum of them being positive towards the class and student interaction to them being nothing more than additional "busy work". However, students offered multiple suggestions to improve upon the structure that was employed within Section 075. The next section touches on some of those improvements as well as changes that could be made to the course that could potentially further enhance the role of student interaction within online courses.

Looking Ahead: Things to Consider in Future Online Courses

During the course of the semester I observed some changes that could be made to strengthen the inclusion of small groups and group moderators as well as obtained

feedback from students on ways that could make the structure of Section 075 stronger. Specifically, there were four areas that were addressed by students, two areas directed towards modifications of the small group and group moderator setup and two areas aimed towards changing the structure of the course.

Revising Small Groups

The students identified a couple of revisions that could be made regarding the small groups, and how they could be made more effective in fostering student interaction. The first suggestion from students was that the small groups could be changed throughout the semester. One student posted that “I would like to work with a variety of students. I think changing the small groups around 2 or 3 times during the semester would be helpful.” This student pointed out the desire to work with other students, but switching the small groups a couple of times throughout the semester would also potentially alleviate any issues of students being in a “weak” or “ineffective” small group--an issue that several students brought up in their responses. The negative experiences of being in a weak small group seemed to compound during the course of the semester, and leave students frustrated with the lack of effort from their group members.

Another solution that was suggested was increasing the number of students within a small group. One student made the observation that:

I think the more people you have the more ideas you're going to have you know are always going to have those group members that contribute a lot or don't contribute and say two people out of your four don't contribute a lot and it's always you and the other person having these discussions it's gets kind of like okay we're having another discussion like where's

everybody else and maybe it would be nice to interchange the people in the groups for that reason.

Based on this response, the addition of students would provide more ideas and provide more potential for discussion forums to become richer. However, more importantly, this student's observation points out a significant flaw in having small groups of four students. If one or two students fail to contribute to a forum discussion, group project, or peer review, it can cripple the outcomes of the group. Increasing the number of students within a group to six or eight could still increase the idea of student presence in online environments, and also provide more diversity among the discussion forums. These types of changes to the small groups would be easy for the instructor to implement, and could provide dramatic improvements to idea of student interaction.

Overhauling the Role of the Group Moderator

The role of the group moderator gained a much more substantial amount of criticism from students than the use of small groups. There were a number of issues involving miscommunication, not understanding the role of the group moderator, and it being more busy work than something that contributes to the small groups or course.

The first issue that quickly became apparent was the confusion associated with who was the group moderator for that week. Since there was confusion about who was the group moderator, there were several instances in which a project or discussion got a late start which caused a variety of problems. A student offered a potential solution stating, "I think maybe instead of having a group moderator every week, maybe have the group moderator for like a two week period because then if there is a lull in the discussion or in your project time or whatever, you actually have something to write

about and I feel like the discussion could be brought deeper if it wasn't a different topic every week." Having students be the group moderator for a two or three week period could make it easier for them to know who the moderator is for a given week. Students could also write one moderator reflection rather than one for each week which could eliminate some of the "busy work" that they associated with this role. Finally, having the group moderator over a two or three week period could help eliminate the problem of having nothing to do as the moderator during a single week because there would be a variety of assignments for the group moderator to oversee over a longer period of time.

Another component related to the group moderator that needs to be addressed is making the duties of the moderator more clear and explicit. There were a number of students that commented on how they were not sure what they were supposed to be doing as the group moderator. Focusing more time on this at the beginning of the semester and having a detailed set of instructions should give students a better idea of what is expected of them when they are the group moderator. While discussing how the group moderator role could be improved, one student described how the group moderator role could be modified to add depth to the forums:

That's hard because it was said this forum is meant to be a group discussion, and that never really happened. It's hard when everyone does the same assignment, because (at least with my group_ we all usually took away the same message. Maybe having the moderator give their opinion (they have to submit it earlier) and everyone has to suggest a different method or elaborate on what they said instead of just saying they agree?
[...]

This observation also ties into some ideas that will be discussed in relation to making some adjustments to the structure of the class. However, the main point to pull from this observation for this section is providing clear responsibilities for the group moderator that will encourage student interaction. A lot of students discussed how the most beneficial role of the group moderator was organizing the peer reviews, but this point does little in terms of fostering student interaction. Providing the group moderator with specific tools and strategies to encourage discussion among group members, as stated in the student's response, could provide a foundation for much richer discussions within the class forums. While the group moderator role did not seem to be very effective within Section 075, I still believe that it could be revised to generate student interaction. As found in Chapter Six with the group projects, having a group moderator to start and lead the projects helped in making sure they were organized and completed by the group. Having this leadership role has the potential to build stronger levels of interaction and could benefit multiple aspects of WRIT 3562W as well as other online courses.

Modifications to the Structure of WRIT 3562W

Another potential strategy to encourage the role of student interaction is making slight adjustments to the course--specifically in relation to the amount of forums throughout the semester. It is important to note that I added four "discussion based" forums to the three courses observed in this dissertation so that there was more work than a typical WRIT 3562W course, but students still commented on the number of assignments and activities affecting how they engaged with the class. As a result, a lot of students posted to forums shortly before they were due creating a situation in which there was little time for an actual discussion to emerge. This problem seems to be relatively

common in online courses, but minimizing the amount of forums in the course while increasing the amount of participation required in the forums may provide a potential solution. For example, the traditional course shell for WRIT 3562W requires the completion of ten forums throughout the semester. However, changing the number of forums to five would provide longer windows for students to complete them. Additionally, revising the instructions for the forums (e.g., post an initial response to the forum prompt by Wednesday night and reply to at least two students' posts by Sunday) could help generate a more in-depth discussion because it requires students to engage with each other and helps alleviate some of the issues related to asynchronous communication limiting actual discussions. These types of changes would lead to a "less is more" approach to encourage student interaction, and could transition the class forums in WRIT 3562W from posts that demonstrate "independent responses to a class prompt" to "student discussions about a class prompt".

The other modification that could potentially benefit WRIT 3562W would be more dramatic and require a shift in how the content of the textbook is delivered to the students. A number of the students commented on how the material of the course can be difficult for students. For example, one student discussed how "[...] Sometimes the professor would tell us what to talk about, but the subjects are so dry and boring; who wants to talk about that? If there was some way to make it more interactive, through video chat or document sharing like this I suppose, that could help. I don't think this subject matter is necessarily conducive to student interaction [...]" Based on some of the students work and their responses to the surveys/focus groups, it seemed that the content being "dry and boring" had more to do with talking about technical writing from an

abstract point of view and completing assignments in which students did not always see the importance of their application. One student's response reinforced this idea by asking for "More exciting assignments, things that connect to our everyday lives. Maybe making resumes, or creating different type of documents that we could actually use professionally. If we personally don't take anything out of these courses as students, it becomes irrelevant." While the textbook for WRIT 3562W included sections that were meant to illustrate potential applications of the material (e.g., the case studies within each chapter), some students commented on how this material was kind of one dimensional and did not do much to extend the content of the textbook outside of the class. One potential way to solve this type of problem is to incorporate practice field based learning into the course. The next section provides an overview of what practice fields are and why they are important followed by a brief discussion of how they might be incorporated into WRIT 3562W.

Practice Field Based Learning

There has been a lot of literature that stresses the need for student learning that reflects the environments that they will be a part of after graduation. James Paul Gee (2007) addresses this idea in relation to reading and understanding material discussing how:

a way of reading a certain type of text is only acquired, when it is acquired in a 'fluent' or 'native-like' way, by one being embedded (apprenticed) as a member of a social practice wherein people not only read texts of this type in this way, but also talk about such texts in certain ways, hold certain attitudes and values about them, and socially interact over them in certain

ways. Thus, one does not learn to read texts of type X in way Y unless one has experience in settings where texts of type X are read in way Y....One has to be socialized into a practice to learn to read texts of type X in way Y, a practice other people have already mastered. (p. 44)

The idea of practice fields are similar to Gee's observation about reading, but build on the importance of "real-world" based assignments and producing work that mirrors professional responsibilities. Practice fields are environments that offer students opportunities to work on assignments/activities for professional environments and extend beyond the traditional borders of academic courses. Practice fields provide an opportunity for students to apply the ideas they learn in class to situations that may be more relevant (less abstract) to their lives after graduation. Barab and Duffy (2000) highlight the issues with current pedagogy practices in which "the cultural context of schools all too often emphasizes learning and grades, not participation and use, and the identity being developed is one of student in school, not contributing member of the community who uses and values the content being taught" (p. 34). This point holds particularly true in several writing courses that require students to write traditional "student" papers (e.g., 1 inch margins, 12 pt font, Times New Roman, Double-spaced, and so forth) that do not prepare students for the types of writing situations they will encounter in professional environments. So why do practice fields offer a better opportunity for students to learn? In order to answer this question, it is first necessary to argue why courses focused on grades and individual based learning might not provide the right opportunities for students.

Many online writing courses still maintain a focus on types of assignments and activities that rely primarily on text. While text-based assignments offer opportunities for students, text-based tools often fail to take advantage of all the technological affordances offered to us in the Web 2.0 era. Conrad and Donaldson (2011) offer a different perspective stating, “new media offer a wealth of opportunities for interaction, yet many times are employed in a non-interactive mode that tends to focus on creating an online lecture. Lecture is effective for knowledge transmission, but if it is the primary strategy used in the online environment, the course becomes a digital correspondence course with potential problems of learner isolation and high dropout rate (p. 4). Conrad and Donaldson’s reference to knowledge transmission is especially interesting in regards to online writing courses. Lecturing and knowledge transmission seem more appropriate to courses that deal in objective facts, while the construction and revising of arguments and writing seems more suited for a different learning style. Instead, writing courses seem better suited for the creation of knowledge through student interaction and group work. If the act of writing is more of a subjective practice in terms of content and style, then it becomes that much more important for students (as well as the instructor) to work together to determine what constitutes “good” writing. Practice fields are a perfect pedagogical environment for this type of learning because it provides students the opportunity to engage their own writing with a concrete purpose and goal in mind while also providing an opportunity for interaction within the class.

Practice fields provide students with the opportunity for situated learning which fits well with the idea of student interaction. Barab and Duffy (2000) argue that “situative perspectives suggest a reformulation of learning in which practice is not

conceived of as independent of learning and in which meaning is not conceived of as separate from the practices and contexts in which it was negotiated”. Additionally, they go on to say, “there are no boundaries between the individual and the world; instead, ‘learning, thinking, and knowing are relations among people engaged in activity in, with, and arising from the socially and culturally structured world’” (Barab & Duffy, 2000; Lave, 1997). Lave’s observation feeds right into the idea of interaction by addressing the relationship between learning and interaction. However, it is difficult to create these kinds of environments in a traditional face-to-face environment, and even harder to facilitate in an online environment.

Two potential ways to incorporate the idea of practice fields into WRIT 3562W is to develop assignments that incorporate some element outside of an academic environment into assignments/activities or develop a sense of role-playing within the course. There are many potential ways develop assignments that extend beyond the traditional academic environment. Web 2.0 technologies offer a way to compose and interact with audiences outside of the instructor. For example, the technical definition assignment could be redesigned for students to write for Wikipedia or the group project for writing instructions could be modified so that students have to create a how-to video for YouTube. In both of these examples, students would still have the instructor as the evaluator of their work, but they would have new audiences and new environments for their writing. I have used the Wikipedia assignment before and have seen examples in which students gain unique and interesting real world experience. For example, I had one student write a technical definition for “student teaching” using sources that focused specifically on the state of Minnesota. While I did not see a problem with this (since I

was from Minnesota and fit the audience profile), the student received feedback from other Wikipedia users that she could not use these sources because it did not fit the needs of Wikipedia's audience. This example demonstrates a student writing in a practice field that provided her with rich experiences writing within and for a specific kind of system that had its own rules and policies, a system that would have been difficult for me to create in the classroom. Additionally, having students write for an audience beyond the instructor creates a moment in which the students get to see and value writing from a new perspective (e.g., writing for a Wikipedia audience versus writing for a grade).

Modifying assignments to extend beyond traditional academic environments can help with illustrating the practical applications of technical writing, something that might not always occur through reading the textbook and completing assignments solely for the instructor and a grade.

Incorporating role-playing within a course is another way to incorporate practice fields and writing in a manner than may extend beyond the idea of writing for the instructor and a grade. WRIT 3562W and the use of small groups is a perfect way to incorporate role-playing. For example, two groups could work together in which one group acts as the "client" while the other group is the "team of technical writers working for the client" writing a recommendation report. The "client" could create a set of parameters that the report has to address while the "technical writers" would have to continually work with the client to make sure the recommendation report meets the necessary goals. The "client," in addition to the instructor, could then provide feedback on the final draft of the recommendation report. In this example, the students would get to participate in different roles and hopefully experience writing from new perspectives.

These are just two brief examples of how practice fields can be incorporated into the classroom, but I believe they demonstrate the possibility of reinforcing or expanding the idea of student interaction within and outside of the classroom.

Down the Road

Vygotsky stresses the importance of the ZPD in learning, and I argue that the role of student interaction ties into the ideas of learning that Vygotsky explores. Thinking about the types of modifications and additions discussed in the previous chapters offer some ideas to further the role of student interaction that was discussed throughout this dissertation. The role of student interaction is important for all types of courses, but it seems even more important for online courses due to the often independent, solitary nature of students in these classes. Additionally, online courses continue to maintain a strong presence in higher education, and this will most likely grow because of factors such as the growing number of non-traditional students, the lack of (cheap) physical classrooms for colleges and universities, and the excitement over new opportunities such as MOOCs. However, as online courses continue to be a part of our higher education system, it is important to continually explore how we as instructors can improve the experiences that students have as well as the knowledge they learn. The role of student interaction is one area that can improve online courses, and is an area that should continue to be explored in the future.

Looking specifically at the discipline of technical communication, I believe that online spaces (whether blended, hybrid, or completely online) are an appropriate space to teach course materials for one very important reason. Technical communication is a

discipline that contains very specific genres that require particular forms of application in regards to writing and multi-modal composition. While it is possible to teach these genres and applications within a traditional classroom, a textbook, a class of students, and an instructor, I believe the inclusion of new audiences and new spaces can be critical for allowing students to gain a better understanding of technical writing. Online environments, while by no means perfect, represent a space in which students can begin to experiment with their writing among various communities that may come closer to mirroring the opportunities that students will experience in life after academia. Additionally, writing for non-traditional academic audiences provides new opportunities for students to experience and value writing from new perspectives which I believe is critical towards their success. Technical communication asks students to write for specific purposes, and I believe that the concept of “purpose” becomes more concrete when students can see how writing functions outside of the sole relationship between the student, the classroom, and the instructor.

The continual forward progress of technology will also shape the future of online pedagogy. The next five years may see a dramatic shift in how online courses function based on the growing ubiquitous nature of multi-modal forms of communication and the increasing presence of portable devices. While technologies such as Skype and Google Hangouts already exist, there seems to be some obstacles in imbedding them within online courses (i.e. bandwidth requirements, university policies, instructors need to learn how to use them, as well as other reasons). These types of issues may come to pass and the use of communication technologies that incorporate audio and video in five years may seem as ubiquitous as texting and instant messaging are today. This will have

dramatic effects on how students and instructors communicate with each other, and will have some sort of effect on how instructors attempt to teach course goals. The portability of technology will also change the way in which we communicate. The proliferation of mobile devices such as tablets and smart phones will also increase the level of access to online courses and may change the nature of asynchronous communication. While the progress of technology will most likely afford us new ways to communicate, it is up to the instructors as well as universities to guide how we use these communication technologies. Instructors need to be able to evolve and adapt their pedagogies to fit the tools available to them, and universities need to be able to provide instructors with the resources and freedom to use new technologies effectively. The technologies of online courses in the future are already here, but it is up to current instructors and scholarship to direct how they will and should be used further down the road.

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Appendix A-Pre/Post Survey for WRIT 3562W

1. Please answer the following questions based on this scale: 1=Strongly Disagree, 2=Disagree, 3=Undecided, 4=Agree, 5=Strongly Agree *

Please choose the appropriate response for each item:

	1	2	3	4	5
My impression of online courses are that they make it easy to interact with my instructors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My impression of online courses are that they make it easy to receive prompt feedback from the instructor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My impression of online courses are that they make it easy to work with other students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My impression of online courses are that they make it easy to allow me to be more effective with my time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My impression of online courses are that they have allowed me to succeed in my coursework	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My impression of online courses are that instructors manage online courses effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My impression of online courses are that they are more effective than face-to-face courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My impression of Moodle is that it is an effective tool for online learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My impression of online courses are that they encourage student interaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Based on your previous experience with online courses, do you interact a lot with your classmates? If so, how does this affect your learning experience?

3. What one thing would you change to make your previous experience with online courses more effective?

4. **Please choose only one of the following:**

- Female
- Male

5. What is your academic level?

Please choose **only one** of the following:

- Freshman
- Sophomore
- Junior

- Senior
- Other

6. How old are you? *

Please choose **only one** of the following:

- 18-25
- 26-35
- 36-45
- 46-55
- 56 or older

7. How often do you use the internet a week? *

Please choose **only one** of the following:

- Less than an hour
- 1-3 hours
- 4-6 hours
- 7-9 hours
- 10 or more hours

8. How many courses have you taken in a "face-to-face" setting? *

Please choose **only one** of the following:

- 0-5
- 6-10
- 11-15
- 16 or more

9. How many courses have you taken in a partially online/hybrid course setting? *

Please choose **only one** of the following:

- 1
- 2
- 3
- 4
- 5 or more

10. How many courses have you taken in a completely online format? *

Please choose **only one** of the following:

- 1
- 2
- 3
- 4
- 5 or more

Questions Added for Post Survey

2 Based on your previous experience with online courses, do you interact more with your classmates in WRIT 3562W? If so, how does this affect your learning experience?

Please write your answer here:

3 What one thing would you change to make your experience with this online course more effective?

Please write your answer here:

4 How did the responsibility of being a weekly Group Moderator affect your experience with the course? **(Section 075 only)**

Please write your answer here:

5 How would you describe the overall quality of your small group? What factors or examples led you to feel this way? **(Section 075 only)**

Please write your answer here:

Appendix B-Transcripts from Focus Groups

Focus Group 1

D Alright, sorry my internet is doing some crazy things, but... okay, did you guys get the second question at all

No

D Alright, the second question is was there a specific reason that you took WRIT 3562W as an online course?

S I kinda took it because being a commuter I didn't want to have another class to attend on campus so that's why I took it online

F I took it because it was what I thought was the only way offered I guess, my advisor just said it was online, I thought okay that will be great

D okay

A yeah, same thing for me but it especially worked out because my schedule is pretty heavy with practice and stuff so it was kind of a nice option.

S and mine was similar it was a time thing with the other classes I was taking when you graduate in 3 years you have 18 and 19 credit semesters so it is hard to make everything fit so taking writing online allowed for more time for other classes like in-class lectures

D okay. I was planning on writing the questions in the chat but pretty much now all I have now is audio so there's a yellow line slash at the top of my computer that looks pretty dire so we'll just keep going with the audio if that's alright with you guys

Sure, sure

D alright so question number 3 and there are 10 questions total, describe your experience taking writ 3562W this semester.

F I thought overall it was pretty easy for being...counted as two writing intensive courses, there was a lot of, for me, some miscommunication with the teacher...and so I didn't always fully understand like when things were due they wouldn't have due dates I mean I had the syllabus printed out but sometimes, I don't know, it was more difficult not being able to talk to her in person and have to wait for an email response you know made it harder to know when things were due, but overall I thought the actual course was pretty well straight forward, you know, we had the discussion forums and those were a good way to interact with your group and I like how we had the same groups throughout, just some technical issues and that could have been moodle as well so...

A I probably say the same thing, I know sort of, the big paper we had due it was hard to ask questions I guess...like I like to approach the professor face-to-face in classes and after class and ask them questions if I have any but when you have to email someone and wait for a response, it kind of makes it a little more challenging and the same thing with due dates and I would usually put things off towards the last minute when I can haha and if I think an easy fix would just have the due dates up on each assignment you know, like when it is due because it's just an open discussion forum when you submit an assignment and there's no, and most of my courses ...online there are stuff on the bottom where it says on the bottom that it is due at 11:55 or midnight and there was that for the big assignments but I think in all the discussions and stuff it would have been nice as well

D okay

F I would just kind of talk about that with knowing ...it got a little confused but other than that I had no issues with the course.

S I thought for an online course it was pretty well structured I've taken some other online courses where it is really hard to keep pace just because it was so open ended and it was nice to have the deadlines, I didn't have too much of a problem when things were due, but I know a lot of people who did have some confusion, I guess my only like recommendation or kind of issue I guess sometimes was sometimes several of the assignments like the moderator were like...that we were asked to do were sometimes hard to complete because it might have not been much so I felt like you were writing to write rather than working on my writing skills

D okay, for the reflections

S yeah, so like moderator reflections

D alright, do you any of you have anything more to add on to that question.

No

D okay, so question number 4 and the next set of questions will kind of become more directed towards specific elements of the course, did being placed in small groups change how you approached this course and if so how?

F yeah, I think absolutely because when it's just like an individual paced course like you know put it off more you might not you know write in the forum until 11:59 on Friday, but when there is three other group members you kind of need to, you know that if you don't participate it is going to affect them and it helped me to stay on track and you know, I don't know, I just thought that was, yeah

S I definitely took the course more seriously because of it, like not that I would you know slack off or anything, yeah, as far as turning things in when I did and stuff I felt like I turned them in at an earlier time than if it was just me submitting something to just the professor

F I think most courses are so used to having these large scale classes that it was really nice to have a course where like my main, my classmates were a group of 4 of us so it was really nice, it was just a completely different change of pace and allowed you to have I felt like more of a hands on time where you got to know people and their writing styles and then really work to improve each other.

D okay

A I'll agree with that, I guess I'm more used to the large scale courses like I've taken a good amount of lecture classes and, you know the courses 30-35 people in them, I ...communication major so small group of people anyway though so I know half of my class...last year, but it's different ...to adjust

D and did anyone have any comments to make based off of stuff that other people said or are we good to go on that question

Good

D alright, so this is, the next two questions are still going to focus on the small group aspect, what was the most beneficial part of being placed within a small group? So you guys talk about this a little bit in the last question, but if you could just get a little more specific and a little more detailed.

S for me I would really say that it really felt a lot more hands on, especially because you get used to certain writing styles, like there are a certain amount of times that you'll start reviewing someone who has already written, so it was kind of helpful to already know a little about what their writing looks like and then be able to push them farther, I guess at least when I was reviewing the papers that's how I viewed it, and it was always nice to

see you kind of, when you wrote in a review post or when I posted in the forums, when there was kind of a touchier topic or something like that it was really easy to ask a question to hope someone would respond because you know that may or may not be something they are interested in per se.

D okay

F yeah, I kind of liked to how you could see the changes in peoples writing because if you know peer reviewed ...people throughout the semester you're not really going to know their writing style...you know like kind of changes how you ...

D okay, any other additions to that?

A I like the very first assignment where you had to post stuff about your personal life ...you kind of get more information on...about the people you're working with...

D is everyone else getting the feedback? Okay, Abby, the question was what was the most beneficial part being placed within a small group?

F okay, um, I just felt that it was good to get to know other people um and they saw like your past work so they kind of know I guess the big areas repeatedly that you need to improve on and stuff, so yeah, it was, you get to know somebody's writing style better so then, yeah, I don't know

D anything else that anybody would like to contribute to that question, okay, so on the flip side then, what was the most challenging part of being in a small group?

F well for me we had an issue on the project where we made the how to instructions where one of our group members did not respond at all and we were basically done with the project and then she responded and so we had contacted the professor to say, to raise the issue, there was nothing done about that that I'm aware of, I don't know if the...was, but to me that was a little I don't want to use the word unfair, but you know we all put in a lot of work and it was really frustrating to not have a group member contribute, and you know there, we would email her and I just know what happened there to cause that, but that was one issue with the group projects.

A yeah, I think when it comes down to submitting peer reviews and stuff if one person doesn't contribute then it kind of messes up the group, you know, you can establish that this person should review this that person should review that, but if they don't do it then you're kind of sunk

F yeah, we had a group member that only submitted forum posts every two weeks so like every two weeks all of a sudden she would submit all the forum posts that had occurred those last two weeks and so it was like yeah one time I didn't have my paper peer review and with the group project she didn't respond at all so it was just kind of made it difficult and kind of frustrating because we kind of had to pull her weight to.

S and sometimes I guess in my opinion some of the discussions can be really difficult...

Break in audio and video-technical difficulty

A for the group moderator it does ...importance on one person during that week because if you didn't like start the conversation and like hey we got to work on this so lets start, if you didn't do that then like, what's going to happen, I don't know, I did my group moderator responsibilities in my head...would have been bad ...

D okay, my internet disconnected for a brief second again, so could you expand on that Alex,

A I was just saying that you know I had, I can't remember what it was, I was the group moderator for the project, so I feel like if I didn't post on the first day of the week then it

would have been hard to get the ball rolling as a group for our project, and I, it would be interesting to see what would have happened if I didn't do anything, I'm sure someone would have taken the reins, but I don't know

D okay

S I would agree with what's been said so far, especially with the reflection paper we kind of brought that up before, and other kinds of things I guess some times with the moderator if felt like you could be sometimes be pulling teeth I guess to you know initiate a discussion which was hard because you wanted people to discuss things cause you were the moderator, but it didn't always work as well as one would hope it would work, I feel like some groups it probably went really well and some groups it was touch and go, and then it became difficult if it was like a post or discussion that was due on a Friday well no one was going to do it until Friday, and then you were suppose to reflect on everything that's been discussed, but nothing has happened, it became kind of problematic, but otherwise I mean I think it is good that there is a role kind of given out to leading some thing, it gives some students who maybe don't normally take leadership roles like a chance to have a little one or something like that so I see where it could be beneficial

F I don't know, for me like the times that I was moderator they happened to be like I got the weeks that you know there was nothing really for the moderator to do so it's just kind of like ohh, so like my reflection I'm just kind of like well I really didn't have to do anything but, yeah, so that was kind of my experience with the moderating

D alright, and then did anyone have anything else to add to that? Alright, I'll take that as a no. Okay, so number 8 did you learn more in this course through working with other students?

F I don't think I necessarily did, I feel like that was more, I don't want to say stressful, but it was more weight to have to rely on other people to edit your paper and to you know write on the forum, and I feel like for me I am more of an independent learner and kind of at my own pace, I wouldn't say I didn't gain anything, but there's nothing really that I can think of that I gained

A Yeah, in terms of like the peer reviews and stuff like I, it's hard to really trust the person that is reviewing your work because I don't know how good of a writer they are if they are just looking at my peer review and I'll say something here say something there as opposed to like what teachers grade and like okay this is what they want and you'll get a better grade, it's I don't know, ...

F I feel like I did learn more just because I am one of those who is a really bad writer, I came from a school system that pretty much that if you wrote the paper you got an A on it so I didn't really ever learn how to write properly, yeah, you turned in the paper you got an A so I thought this class was beneficial you know, have somebody else go through my paper and you know edit it for me, so it helped me

D okay, so could I ask you to expand on what elements of your writing were, did you get the most help on or that you found the most constructive?

F It's just kind of like a little bit of everything I'd say, more like just like the way I worded things I guess is probably the biggest thing, I have trouble putting my thoughts into sentences and stuff like that, and so you know I would have very poor literate sentences, and they would give me you know oh maybe reword it this way and stuff so that's probably where it helped me the most

S I'm kind of a mix of the two, I think that I definitely benefited from having group work, but I completely agree with what Reese said how it can be definitely stressful and what Andrew said about how sometimes you don't really want to rely on someone peer editing skills because you're not convinced that they are good, and that you want to take their changes when it's your grade, but I think I guess working with a group and working with other people that you may or may not trust is going to be something that you have to do a lot in the real world so I think it is good that we get the experience here even though it does kind of suck quote unquote, but it is good that we have to do it, I mean I did learn things whether it was just how to peer review someone and not be like your paper really stinks, but to be like you know I like this, but you should improve this, I also like some of the things people talked about in their writing was interesting, so I think overall I did learn ...even though it wasn't always fun. Haha

D alright and did anyone have anything else to add on to that something that was already said? Okay, so kind of transition to the last few questions, so the role of the small groups and moderators were used in this section of WRIT 3562W to encourage student engagement and additional learning through interaction with your peers and trying to mimic that environment that you have in a classroom where you are kind of forced to interact with students, so what to the small group and group moderator format could be made to improve this goal in the future?

F I think maybe instead of having a group moderator every week, maybe have the group moderator for like a two week period because then if there is a lull in the discussion or in your project time or whatever, you actually have something to write about and I feel like the discussion could be brought deeper if it wasn't a different topic every week.

A I think in terms of both dead weeks...yeah were you are writing your paper and maybe....

D I'm sorry did everyone lose Adam's audio or was it just me? Okay, let's see... alright well if anyone wants to go while we figure out what happened to him.

S I definitely like the idea of having a two week time period or at least if there is another dead week I guess even not having a moderator and just you know, I don't know if it would be helpful to say or to include points for actual participation in the discussion or that was a portion of the grade where you had to discuss things, I don't know if it is or it isn't, but it wasn't really made clear, because we had some group members definitely discussing things and others that wouldn't really respond besides putting their own post on the wall, so that I guess would be a recommendation.

D okay

F I thought it was fine except for the fact that I hate Moodle haha and like I don't know, with it being like a separate thing it was just kind of hard I guess to communicate sometimes, I just find the forum posts different for that kind of stuff personally otherwise I thought it was good but yeah like the two week or maybe even three weeks would be a good thing at a time.

A uh can you guys hear me ...

D okay and you all seemed to comment on the group moderating role, how about the small group element?

Yeah

S I think the small groups are really good, it might be cool I don't know, I liked being in the same small group, but it might have been nice to switch it up half way through, just

because you know you normally work with more than four people or even if it was a larger group because it's nice not to have, I mean it's nice to be in a smaller group but it would be nice to have a couple other people to bounce ideas off of because you get to the point I think where the people that peer review your paper look for the same things or realize oh this is something that they always struggle with or you know if you are a writer that doesn't get a lot of comments in peer review you know you might find that like in the current group your in you might find someone in the next group that could be more like oh this you could help with so that might be helpful in the small groups.

A yeah, one of my courses, it's the groups are broken up into 7 or 8 people and they split the class of 30 up into 4 groups so I felt like that kind of gives you more options to kind change up who you want to peer review so maybe one week you can take this person to peer review and the next the group moderator would change it up and interview someone else, it kind of gives you more options I guess

F yeah, I agree um I think the more people you have the more ideas you're going to have you know are always going to have those group members that contribute a lot or don't contribute and say two people out of your four don't contribute a lot and it's always you and the other person having these discussions it's gets kind of like okay we're having another discussion like where's everybody else and maybe it would be nice to interchange the people in the groups for that reason.

A I think also maybe having everyone post there group discussion topics in one forum instead of a couple of separate different ones you can read everyone's post in that one forum and then you can have the option to comment on whoever you want or all of them at the same time.

S that's a really good idea because often times it often takes it's dumb that it, I say it takes too much time, but it is it's like a lot of clicking back and forth when really some of the conversations blend together, but you don't see they blend together unless you click up all of them which not everyone does, yeah I think that is an awesome point

F well then sometimes too if you're like if you respond to a post and you're the first one responding to the topic, you post it and then you it pops up and somebody else responded too because it doesn't always like refresh right away so even if somebody did some other topic while I'm on the webpage it doesn't always show it anyways, so you start another forum and it's just... I don't think maybe there shouldn't be an option to add a topic you know just have the basic where submit your response here so it all just automatically...add a topic

D alright, um, okay what you guys were kind of talking about there was the learning management software itself so just kind of getting on the topic of technology, what technologies did you use to communicate with each other throughout the semester and I guess specifically probably the group project for assignment 5?

F I guess I've just mostly used the Moodle site I mean we emailed the teacher...as a group but other than that it was strictly the Moodle site

S it was just strictly the Moodle site for my group. We posted on the Moodle site, we did have one group member start a Google doc but we all ended up just doing it all separate and we'd then attach attachments to, we were going to use a Google doc but we ended up just putting it all on Moodle

D um well that just brings us to our last question and its pretty much do you guys have any other comments or observations that you'd like to add regarding your experiences with WRIT 3562 or anything that you think I missed.

F I guess I have one comment I don't know if you're focusing more on the course or the Moodle technology that we use, but I had trouble with Moodle when I would submit something I got my grade for it and then it said...and I knew it wasn't and so I looked and...you know I had a couple of issues like that so I don't know if that's the best way to use...have an online course because...just isn't...seems to have a lot of technical difficulties

A I know for me if I'm going to do a group project I enjoy getting a Facebook group together just because it makes that so easy to do and if you look at stuff like Google documents they have a chat option like we do right now and it's Google plus conversations so you can all be working on the same project and chat with someone else like what are you working on right now, so I don't, it's probably unrealistic to put a chat option into Moodle but because I would have made a group ...group project but I didn't want to lose participation points because the teacher would never see that.

D does anybody have anything else to add?

Outro, thanks to everyone, one additional survey, etc.

Focus Group 2

Welcome to our focus group. My name is Drew Virtue and I will be hosting/moderating the the chat. I think we can get started.

Excellent. For question 2, was there a specific reason that you took WRIT 3562W as an online course? I think everyone can just contribute at the same time and we can see if there are any additional comments to make.

I spoke with my advisor about finding a writing course that was upper level, as well as intensive that would get me the credits I needed to graduate. I commute from home, so I didn't want to have to come down to school additional days for one class.

I know a lot of people who have taken this class before, and most of them take it online. It's just easier to not have to physically go to class, I thought about taking it not online, but the class times didn't work for me.

I think for writing it is something that I can do in the comfort of my home, and take the time to work on it whenever i want. I talked to a couple friends who took it in class and they said it seemed like a waste of time, and that they didn't learn anything.

Okay, is there anything any of you would like to add after reading each other's comments?

I agree with the other girls!

agreed.

I agree with everyone's reasons for taking it online.

#3. Briefly describe your experience taking WRIT 3562W as an online course.

-I agree that it's a lot of work. It's hard to maintain a solid schedule with myself and the other things I have going on when there isn't a specific class to go to. I had to be really on top of everything, and of course got behind on little assignments like the forums.

-It was a lot of work, in a format that wasn't very easy to collaborate on. Although we had forums and the opportunity to communicate, it was hard to have conversations with group members that seemed uninterested. Similar to how I feel about other group presentations in college, I think it is next to near impossible to find a good collaborative effort. Some people put in a lot of work, while others do not. As I'm trying to graduate and find a job, I thought that for a 3000 level course, it was an overwhelming amount of work.

It was definitely more work than I anticipated. I have one of my friends taking it as a night class currently, and she does a lot less than we have had to. The forums sometimes seemed very unnecessary because what we were learning was pretty common sense. We would all pretty much say the same thing, which made it hard to comment and elaborate on other people's posts besides "yeah I agree." Also since everyone works on things at different times, its hard to work on a presentation with three other people in an online setting.

Good, do any of you have any responses to the other posts?

Like Jess said, it's pretty unfair when you see that other sections of the course get off a lot lighter than you do. I feel for a university of our size, that all class sections would be based on the exact same curriculum.

I agree it's really hard to collaborate. The group assignment was a little difficult. Totally unfair that the one section doesn't have as much work to do, but I bet they do a lot in class discussions. It's just hard to have to physically get on my computer, log onto moodle, and respond to a post.

I agree with having to really stay on top of things. I looked at the fall 2012 schedule regularly, but even then I would miss things occasionally. I'm not one to ever turn in assignments late, so that was sometimes frustrating, but I can only blame myself.

Alright. The next questions get a little more specific.

#4. Did being placed in small groups change how you approached this course? If so, how?

--I think it did. When it's a huge group of people, I don't really care how well I do things, but when it's a small group of people, I care more about the quality of my content.

Not at all. I'm not one to slack off in groups, because I feel that if I don't put in effort, no one will. If we had been in a large group, it could have been easy to get lost in the shuffle, but I'm just not like that at all. I'm definitely a take-charge person and like to lead discussions. Being in a small group just helped me to step up as a leader even more and probably made me work harder in trying to engage everyone in the group.

I think it changed how I would normally approach things in a good manner. With having the same group all semester I was not afraid to express how I felt things should operate. At first when I was group moderator I assigned everyone to the papers to peer review. Second time I was like just choose whoever you want. We got to know one another and were able to collaborate and get things done. If I had to choose a forum to respond to in a group of 40, I'd probably just click a random one, and not read everyone's.

Alright, any additional comments/observations after hearing everyone's response?

I also liked how I felt like we knew our small groups by the end of the semester. It was easy to get familiar with a person's writing style and know how to review it from there.

^ agreed!

#5. So you all kind of addressed this to an extent, but more specifically: What was the most beneficial part of being placed within a small group?

--Like I said, I cared more about the quality of my work. It's nice to have a smaller group of people I can get to know a little better and consistently read their papers and stuff.

Like I said, knowing what to expect from each person was nice. Most people taking the course are not writers, and it helped to keep expectations of writing samples from getting too high. I knew not to be so critical and just try to collaborate effectively with my group members.

When we had the group project, my small group did an excellent job. We looked at our choices and everyone agreed on the part they would do. Betty was able to initiate everything and volunteered for the graphics, which I think would have been stressful for me if I had been stuck doing them. It was definitely helpful when others edited my work, because I'm not a strong writer and I didn't take it personally when a lot of changes were made.

#6. On the flip side of this question: What was the most challenging part of being in a small group?

In our group there were two people that were usually late for assignments. It was frustrating when I would try to get something done ahead of time, but they either hadn't had something turned in or did not yet review my assignment. We also had someone that

does not use English as their primary language, so this was a struggle. In no way am I suggesting that that is her fault, but it was something we had to work around when editing papers and so forth.

I'm lazy. I don't always answer the forums and I feel bad when I don't do them. One time I completely forgot about doing a peer review and I felt terrible for the person that didn't get a review from me. I'm never late in person so I know this wouldn't be an issue if I had to go to class. I'm just so busy, and while I feel like I know these people, they don't know how crazy busy I am so I just feel bad.

I hate when I am late for anything. In person or online. So when I was late for a forum or editing someone's paper I felt super bad because it's not just my work, someone else is also relying on me. It was also annoying that there was a minimum word limit for after editing someone's paper. Sometimes I didn't need the 300 words on things to suggest, so I would just become annoyingly repetitive by telling them good job, and using fillers.

Okay, you all had some interesting responses, anything to add after reading each other's responses?

I agree, that I am always very busy, so it's not that I don't care about the responses. But, I might not put my most thought provoking responses into the forums.

No, it's easy to understand how it can be hard to stay on top of a course like this. Luckily, I am reaching the end of my academic career so it was relatively easy for me to keep up with the forums and whatnot because my schedule isn't very heavy. This is not something I could have done last semester, with capstone courses and senior projects.

#7 What were the challenges as well as benefits of being the group moderator?

It was beneficial to be able to lead discussion and try to keep a conversation going. It was challenging to get everyone to participate. On weeks when we didn't have much going on, it was really hard to get people to contribute in the forums, but that's understandable.

I was the group moderator for the group project, which I surprisingly enjoyed doing. I was able to suggest what I think we should do, and step up and do what I wanted to do, which was the graphics. It's nice hearing Jess' comment that she liked how I lead the group!

The weeks I was a group moderator seemed pointless. On the reflection of group moderator I didn't really have much to say. I started the forum a day or so early, but people still didn't respond till day it was due. (Can't blame them, I usually did the same thing)

Anything else to add after reading each other's responses?---nope!

nope

#8 Did you learn more in this course through working with other students?

I don't think I learned anything from the people in the group. The book clarified some things that I was not familiar with. I learned people's different writing styles and techniques as well as their interests. The reviews usually didn't help that much because I always submitted my rough copy before I even went through and finished or edited it myself.

As far as my personal knowledge is concerned, I didn't learn anything more by being with other students. They in no way contributed to me gaining anything from this course. I gained writing skills by reading the book and reading the professor's feedback. No offense to my group members, but no; not even their reviews were very helpful unfortunately.

This sounds bad, but no. I think that working with other students for the reviews was more of a "oh, this sentence could be phrased better" or "you should add this" and more of a checklist to what we needed to do for the assignment. The book and writing the actual assignment was the most successful and beneficial part of the course.

Okay, it looks like you all touched on similar themes there so we can proceed. Just two more questions.

#9. The small groups and group moderators were used in this section of WRIT 3562W to encourage student engagement and additional learning through interaction with your peers. What changes to the small group/group moderator format could be made to improve this goal in the future?

It was hard to start a conversation on a short forum. I think more discussions on the assignments, like the group assignment or the analytical report, would be the most beneficial. All of our responses for the forums were the same, so I don't feel like I could add to a conversation when we all agree.

It could help if there was more of an outline of what we should discuss as the group moderators or in the forum. Sometimes the professor would tell us what to talk about, but the subjects are so dry and boring; who wants to talk about that? If there was some way to make it more interactive, through video chat or document sharing like this I suppose, that could help. I don't think this subject matter is necessarily conducive to student engagement. I guess the only other way would be to add more group assignments for collaboration.

That's hard because it was said this forum is meant to be a group discussion, and that never really happened. It's hard when everyone does the same assignment, because (at least with my group) we all usually took away the same message. Maybe having the moderator give their opinion (they have to submit it earlier) and everyone has to suggest a different method or elaborate on what they said instead of just saying they agree? The

group project was pretty easy and my group was able to collaborate more, so maybe a paper or memo as a small group.

Okay, you all had some interesting things to add, so please take a moment to see if you would like to respond to another's post.

An outline would definitely help or give more of a prompt or something that leaves open ended questions for others to answer.

I agree with the comment about forums on assignments that we did individually. They just really had no purpose.

Outlines would be good.

#10. Do you have any other comments or observations that you would like to add regarding your experiences with WRIT 3562W? Anything that I missed with these questions?

I think we hit all the things that I wanted to say. Online classes are tough, especially ones that are writing intensive. It would be nice to have multiple forums do by the end of the week (instead of monday, wednesday friday). So it could be easier to stay on top of assignments.

I wouldn't recommend taking the online version of this class to anyone at this point. The assignments were very excessive and it's very hard to be on top of everything going on with the website. If they could somehow find a way to make the course more attractive, it would help to keep students interested in coming back every week to check online.

I think that the three assignments a week was kinda outrageous. Even if two of them were combined so it was two a week it would have been better. I think if I were to do it again, I would still take it online, because I feel like with the things we learned I wouldn't have paid attention in a 3 hour night class, or three times a week in class

Can you expand on what you mean by "attractive"?

Resumes or cover letters would be awesome! I mean I definitely learned a lot about memos and I'm confident with that, but because I took AP lit and comp in high school, this is my first writing course since high school. Things that people would need getting out of college (or while in) would be helpful.

More exciting assignments, things that connect to our everyday lives. Maybe making resumes, or creating different type of documents that we could actually use professionally. If we personally don't take anything out of these courses as students, it becomes irrelevant.

Excellent. Well first, let me apologize for the technology issues and thank you for your patience through this process. Also, thank you for your contributions to this focus group, I will be sending out one more survey at the end of the semester. Please know that your

insights have helped me with my dissertation and hopefully will improve the quality of future online courses.

Focus Group 3

me: Excellent. Thank you for participating in this Focus Group. I recommend that everyone maximize our chat window so it is easier to follow along. The focus group tonight will consist of 9 questions, and some potential follow-ups based on your responses.

6:07 PM

Question #1: Was there a specific reason that you took WRIT 3562W as an online course?

Student 1: I love online courses. Any course that I can take online, I will.

6:08 PM

Student 2: I took it as an online course because I know that I typically do well in writing courses and that I would have no problem in an online writing course because I took freshman writing online as well. I really enjoy online classes too because I don't feel like I'm wasting time sitting in class.

Student 3: I have taken one other online course and I enjoyed the flexibility. I wanted to have a little extra time during my day to not have to be in class.

6:09 PM

me: Okay, so I will also ask if any of you have any follow-up responses after reading each other's answers. So do any of you have anything additional to add after seeing each others responses? And Abby, can I get you to expand on why you love online classes?

6:10 PM

Student 2: I definitely agree with Lily, I like having the extra time that you get from not having to sit in an actual classroom

Student 1: I love online classes because of the flexibility and some courses are easier to do online because you can learn at your own pace. My associates degree was earned online as well. I just feel that I learn better in this format, and in this course we can be more honest in feedback, which helps all of us overall.

6:11 PM

me: Question #2: Describe your experience taking WRIT 3562W this semester.

6:12 PM

Student 2: I felt that overall the course was pretty easy and well maintained. I didn't feel like I had to work very hard at it until the analytical report was due, although I was a little frustrated at the beginning of the semester because I didn't feel like there were enough emails being sent out to keep me on track in the course.

Student 1: I really liked the structure of the due dates: MON, WED, FRI. It really help to understand when things were due and what she expected us to have done. It also helped to make sure I was on task with the course. Overall, I thought this course was very manageable.

6:13 PM

Student 3: This online class was very different than the other online course I have taken. It was much more structured than my other class. Which is understandable with all of the group work that was not present in the other class. There were sometimes, particularly Monday when the email was sent out with all the weekly emails, that were overwhelming. Sometimes there was lots of direction with assignments and other parts were left unclear.

6:14 PM

me: Alright, any additional comments to make based on each others responses (if not, please just type N/A so I know to proceed)?

6:15 PM

Student 1: In regards to Renee, I was frustrated in the beginning as well with lack of direction or understanding the course. But once we knew more, the course was easy to grasp.

Student 2: I think especially in the moderator portion of the course, that was very confusing at first until she started being more direct about which moderators went with which week.

Student 3: I agree that as the semester went on the expectations became more clear. But, yes, at first it was frustrating.

6:16 PM

me: Okay, the next set of questions ask about more specific components of the course.

Question #3: Did being placed in small groups change how you approached this course? If so, how?

6:17 PM

Student 2: To some extent yes because I knew that one girl would always review my papers well or put in a lot of effort, so it made me want to do the same. At the same time some of my group members barely posted, so it didn't really change anything. I would have liked to change groups periodically over the semester.

6:18 PM

Student 1: I didn't mind being placed in small groups, many other courses I have taken have done the same, but it gets old when you are doing feedback. It would have been nice to interact with another small group in order to do the feedback for certain units.

Student 3: I don't think it changed how I approached the course.

6:19 PM

Student 2@umn.edu has left

me: Additional comments?

Student 1: N/A

Student 3: I didn't really like the small groups I guess. Or maybe it was just my particular group.

6:20 PM

Student 2@umn.edu has joined

Student 2: Now am I back in the group?

me: You're back.

Student 2: Sorry about that!

me: No problem.

Question #4: What was the most beneficial part of being placed within a small group?

6:21 PM

Student 2: The most beneficial part for me was knowing that one of the girls in my group would always put in her fair share of the work and review my drafts well, so I would get good feedback from her being in my small group.

Student 1: I wasn't as afraid to voice my opinion or ask questions because it was only a few of us and they most likely had the same concerns.

6:22 PM

Student 3: I didn't like the small group or maybe as I said before it was just my group of people. There was only one other member that seemed to work well in the class. The group became more of a burden. I think I would have like if we switched groups.

6:23 PM

me: Additional comments? Abby, do you think you would have voiced your opinion as much in an online class of 24 students?

Student 2: N/A

Student 3: N/A

6:24 PM

Student 1: I feel that it is easier in smaller groups to do it. In a group of 24, I probably would have, but maybe not to the exact extent that I did in a group of 4

6:25 PM

me: Question #5: Some of you have touched upon this already, but what was the most challenging part of being in a small group? Can you provide specific examples?

6:26 PM

Student 2: The most challenging part was having group members that wouldn't post or would post the bare minimum for their work. It was really hard when writing the instructions in group format because I had to kind of nag people to submit their portions. Also one time no one reviewed my draft because someone in my group just decided to not do a review.

Student 1: The group project. I never had any problems with feedback, but when we got to the group project, one member did not participate like the rest of us. It made it difficult to do the assignment and have to split up her part between the rest of us.

6:27 PM

Student 3: I had a group member that went completely MIA for three weeks of the class. One of those weeks they were supposed to be the moderator and it happened to be the week that was the group instructions. Because of his absence, we got a late start. The three of us had to pick up the whole project and on the last day they MIA member reappeared and wanted the same grade as us. That was a frustrating time.

me: Additional comments?

Student 2: N/A

Student 1: N/A

Student 3: n/A

6:28 PM

me: Okay, your observations and answers have been great so far.

Question #6: What were the challenges as well as benefits of being the group moderator? Again, please cite specific examples if you can.

6:30 PM

Student 3: There were certain times that the moderators were helpful. It was nice to have someone 'assign' group members to do the peer reviews just to make sure everyone was able to participate. But the weeks when there was not peer reviews to assign, the moderator jobs seemed more like busy work.

Student 2: There weren't really any challenges other than trying to keep track of when it was your week at the beginning, since our teacher originally would post two groups of moderators at the time and you wouldn't really know what week it was. Other than that I didn't feel like we had to do much other than to assign which papers for our group members to review.

Student 1: I hated the group moderator role. When the role was only to lead discussion, it seemed that the other members did not respond like we were having a discussion. So it never got anywhere. We didn't really even do the group moderator role during the assignment because we got lost in the assignment and forgot all about it.

me: Additional comments?

6:31 PM

Student 2: I definitely agree with Abby about getting lost in the assignments.

Student 1: N/a

Student 3: I agree with Abby's point about leading the discussions.

me: Question #7: Did you learn more in this course through working with other students?

6:32 PM

Student 2: Not really, I felt like it was more independent work and then the other students just helped me edit my work.

Student 1: Yes I did. I had a pretty good group and we were honest and helpful towards each other and I think we all wanted each other to do well in the course.

Student 3: I wouldn't say that I learned more about writing or the objectives of the class. I learned what kind of group member and student I don't want to be.

me: Additional comments?

Student 2: N/A

Student 3: N/A

6:33 PM

Student 1: N/A

6:34 PM

me: Question #8: The small groups and group moderators were used in this section of WRIT 3562W to encourage student engagement and additional learning through interaction with your peers. What changes to the small group/group moderator format could be made to improve this goal in the future?

6:35 PM

Student 2: The small groups could be switched every week so that you are never "stuck" with a group. Also, I think more interactions could be required in the course to get the conversation going and make it seem like the moderator was trying to start discussions with no one.

Student 1: I think the importance of the role and how you want it to be used should be discussed in the beginning of course. I don't think that the group moderator role should be split when the group is working on an assignment.

Student 3: I think if the moderators were only used for weeks when assignments needed to be peer reviewed that would help. I also like the idea of mixing up the groups. At least a couple times throughout the semester.

6:37 PM

me: Excellent, additional comments? Renee, could you go a little further with "interactions could be required"? Abby, can explain what you mean by "split" in your statement? Lily, do you have a specific time in mind for when groups should be switched?

6:38 PM

Student 1: During the instruction group assignment, it lasted more than a week so there were 2 people assigned to group moderator during the duration of the project. I think that it should only be one, if any.

Hope that makes more sense.

Student 2: What I meant with interactions could be required is that we could be given grades based on participation in the discussions, so if we engaged in conversation each week maybe we would get 20 points, if we spoke sometimes we would get 10, and if we never had any conversations other than posting drafts then you would get 0 points.

Student 3: I don't think the groups need to be split every week but maybe three or four times a semester. That way it wouldn't be too overwhelming with always switching, but you could still make new interactions with people

6:39 PM

me: Alright, and now our final question: Do you have any other comments or observations that you would like to add regarding your experiences with WRIT 3562W? Is there anything that I didn't get to cover in my previous questions?

6:40 PM

Student 2: The only thing that I would like to mention is the book that we were required to purchase for the course, I felt like we didn't really need it and that if she made drafts of things like memo formatting and emails then it could be completely online and without a book.

6:41 PM

Student 1: I think that this course is very effective as an online course, the only thing I did not like about the course was the group moderator role.

Student 3: Other than the issues with the small groups, I liked the class. Although it's not a terribly exciting topic for a class, I feel like the practice I got writing was worth it. I think the assignments given were relevant to something I would need to do in the future.

Student 1: I also loved the feedback from the instructor

6:42 PM

Student 2: I agree with Ashley about the instructor feedback, I felt like she did a really good job reading through our work and graded very fairly.

Student 1: She was also great at replying back to you if you had emailed her.

Student 3: Yes, I agree too. The grading did seem very fair. And she was always able to answer my question when I emailed her.

6:43 PM

me: Okay, great! Thank you for your contributions to this focus group, I will be sending out one more survey at the end of the semester. Please know that your insights have helped me with my dissertation and will hopefully improve the quality of future online courses. I apologize for not being able to get Google Hangouts to work and thank you for also using this chat as an alternative.

Appendix C-IRB Form, Consent Form, and Survey/Focus Group Questions

UNIVERSITY OF MINNESOTA
Research Exempt from IRB Committee Review
Category 2:
SURVEYS/INTERVIEWS, STANDARD EDUCATION TESTS & OBSERVATIONS
OF PUBLIC BEHAVIOR

Route this form to:	U Wide Form: UM 1571
See instructions below.	April 2011

IRB Use Only
#

Submission Instructions:

E-mail a copy of this application and any other materials required to the Research Subjects' Protections Programs Office: RSPPeRev@umn.edu

Electronically submitted protocols must be sent from a University of MN e-mail account. Original signatures are not required. U of M x.500 IDs have been deemed by the University of Minnesota to constitute a legal signature.

Academic Advisors and Co-Investigators should be carbon copied (Cc) on the submission e-mail.

For help with this form and to download additional appendices: see <http://www.research.umn.edu/irb/download/> or call 612-626-5654

1.1 Project Title(Project title must match grant title. If different, also provide grant title):

The Role of Student Agency in Online Learning

1.2 Principal Investigator (PI)

Name (Last name, First name MI): Virtue, Andrew D.	Highest Earned Degree: MA
Mailing Address: 5518 32nd Ave S. Minneapolis, MN 55417	Phone Number:
	Pager or Cell Phone Number: 612-916-5278
	Fax:
U of M Employee/Student ID: 4155233	Email: Virtu005@umn.edu
U of M x.500 ID (ex. smith001): Virtu005	University Department (if applicable): Writing Studies
Occupational Position: <input type="checkbox"/> Faculty <input type="checkbox"/> Staff <input checked="" type="checkbox"/> Student <input type="checkbox"/> Fairview Researcher <input type="checkbox"/> Gillette Researcher <input type="checkbox"/> Other:	
Human Subjects Training (one of these must be checked--refer to training links at the end of this section): <input checked="" type="checkbox"/> CITI , <input type="checkbox"/> Investigator 101, <input type="checkbox"/> NIH training (EXCEPT for 5/8/06 to 2/29/08), <input type="checkbox"/> UM/RCR (between 1994-2003) <input type="checkbox"/> Other - Indicate training received, when and from which institution:	HIPAA Training (Required if Data Contains PHI): <input type="checkbox"/> HIPAA
<p>As Principal Investigator of this study, I assure the IRB that the following statements are true:</p> <p>The information provided in this form is correct. I will seek and obtain prior written approval from the IRB for any substantive modifications in the proposal, including changes in procedures, co-investigators, funding agencies, etc. I will promptly report any unexpected or otherwise significant adverse events or unanticipated problems or incidents that may occur in the course of this study. I will report in writing any significant new findings which develop during the course of this study which may affect the risks and benefits to participation. I will not begin my research until I have received written notification of final IRB approval. I will comply with all IRB requests to report on the status of the study. I will maintain records of this research according to IRB guidelines. The grant that I have submitted to my funding agency which is submitted with this IRB submission accurately and completely reflects what is contained in this application. If these conditions are not met, I understand that approval of this research could be suspended or terminated.</p>	

Virtu005	9/13/12
x.500 of PI	Date

Training Links:

FIRST (Fostering Integrity in Research, Scholarship and Training):

<http://cflegacy.research.umn.edu/first/humansubjects.htm>

HIPAA: <http://www.research.umn.edu/first/AdditionalCourses.htm>

- "UM/RCR" includes all human subjects protection training offered in-person or online at the University of Minnesota from 1994-2003.

- The online NIH tutorial offered during the period May 8, 2006-February 29, 2008 is NOT acceptable to meet this requirement.

- If you completed a version of this training not included on the list provided, provide details as indicated


- The University of Minnesota uses two methods to verify records about completion of human subjects protection training: 1) training registration online, or 2) researcher must provide copy of completion certificate. To check your online training record, go to <http://www.research.umn.edu/first/Reports.htm>

1.3 Department, Division Head, or Dean Information

Please note as the researcher, you are responsible for confirming and following your departmental standards and requirements for research.

Laura Gurak
Name of Department Head, Division Head, or Dean

1.4 Are there additional Co-Investigators and Staff?

Yes. Download an [extra personnel sheet](#) and include it with your application. 

No. Continue to 1.5.

1.5 Is the PI of this research a student?

Yes. . Include [Appendix J](#). 

Electronically submitted protocols must be carbon copied (Cc) to their advisor.

No. Continue to 2.

Academic Advisor to the Student Investigator	
Advisor's Name (Last name, First name MI): Laura Gurak	University Department: Writing Studies
Mailing Address: 214 Nolte Center 315 Pillsbury Dr SE Minneapolis, MN 55455	Phone Number: 612-624-1784
	Email: gurakl@umn.edu
	U of M x.500 ID (ex. smith001): gurakl@umn.edu

2. Funding

2.1 Is this research funded by an internal or external agency?

Yes. Include [Appendix A](#). 

No.

If no, explain how costs of research will be covered:

There should be no costs to this research project.

3. Institutional Oversight

3.1 Is this research proposal being reviewed by any other institution or peer review committee?

Yes.

It is the responsibility of the PI to secure the appropriate approval from these committees and document that approval to the IRB. Attach a copy of documentation of approval, if received, and indicate committees below.

If yes, please list which committees will review this proposal:

--

No.

4. Conflict of Interest

Federal Guidelines emphasize the importance of assuring there are no conflicts of interest in research projects that could affect the welfare of human subjects. Reporting of financial interests is required from all individuals responsible for the design, conduct or reporting of the research. If this study involves or presents a potential conflict of interest, additional information will need to be provided to the IRB. Examples of conflicts of interest may include, but are not limited to:

- A researcher participating in research on a technology, process or product owned by a business in which the researcher or family member holds a significant financial interest or a business interest
- A researcher participating in research on a technology, process or product developed by that researcher or family member
- A researcher or family member assuming an executive position in a business engaged in commercial or research activities related to the researcher's University responsibilities
- A researcher or family member serving on the Board of Directors of a business from which that member receives University-supervised Sponsored Research Support
- A researcher receiving consulting income from a business that funds his or her research
- A researcher receiving consulting income from a business that could benefit from the results of research sponsored by a federal agency (i.e. NIH)

“Family Member” means the covered individual's spouse or domestic partner, dependent children, and any other family member whom the covered individual reasonably knows may benefit personally from actions taken by the covered individual on behalf of the University.

“Business Interest” means holding any executive position in, or membership on a board of a business entity, whether or not such activities are compensated.

For additional details and definitions, please refer to the appropriate policy:

University of Minnesota Researchers, please refer to:

<http://www.policy.umn.edu/Policies/Operations/Compliance/CONFLICTINTEREST.html>

University of Minnesota Researchers involved in clinical health care in the Academic Health Center, also refer to:

http://www.policy.umn.edu/Policies/Operations/Compliance/CONFLICTINTEREST_APPA.html

Fairview Health System Researchers, please refer to:

<http://www.fairview.org/Research/index.htm>

<http://www.fairview.org/prof/research>

Gillette Children's Specialty Healthcare Researchers, please refer to:

<http://www.gillettechildrens.org/>

4.1 Do any of the Investigators or personnel listed on this research project have a business interest or a financial interest of \$10,000 or more (\$5,000 or more if involved in clinical health care with an appointment in the Academic Health Center, AHC) associated with this study when aggregated for themselves and their family members?

No.

Yes.

If yes, identify the individual(s) and complete section 4.3:

4.2 Do any of the investigators or personnel (when aggregated for themselves and their family members) listed on this research have:

Ownership interests less than \$10,000 (\$5,000 if in clinical health care with an appointment in the AHC) when the value of interest could be affected by the outcome of the research?

No. Yes.

Ownership interests exceeding 5% interest in any one single entity?

No. Yes.

Compensation less than \$10,000 (\$5,000 if in clinical health care in the AHC) when the value of the compensation could be affected by the outcome of the research?

No. Yes.

If yes, identify the individual(s) and complete section 4.3:

--

4.3 Has the business or financial interest been reported?

No.

If you are a University of Minnesota researcher, please report your business or financial interest online via the Report of External Professional Activities (REPA) at:

http://egms.umn.edu/quickhelp/EGMS_Instructions/prepa.html

If you are a Fairview Health System researcher, please complete the Fairview Health Services Conflict of Interest Disclosure forms at:

<http://www.fairview.org/Research/BusinessOperations/ConflictsofInterest/index.htm>

and submit the completed forms to the Fairview Office of Research.

If you are a Gillette Children's Specialty Healthcare researcher, please contact the Director of Research Administration, at 651-229-1745.

Yes.

If yes, have you been informed that a Conflict of Interest Review Committee is reviewing the information you reported on your REPA? No.

Yes.

The IRB will verify that a management plan is in place with the Conflict of Interest (COI) Program. If the COI Program does not have an approved management plan in place for this research, they will contact the individual(s) listed in question 4.1 for additional information.

Final IRB approval cannot be granted until all potential conflict matters are settled. The IRB receives a recommendation from the Conflict of Interest Review Committee regarding disclosure to subjects and management of any identified conflict. The convened IRB determines what disclosure language should be in the consent form.

5. Summary of Activities

Use lay language, do not cut and paste from or refer to a grant or an abstract.


5.1 Briefly state your research question.

How does a small group format affect student agency in an online setting?

5.2 Describe the tasks subjects will be asked to perform.

Describe the frequency and duration of procedures, psychological tests, educational tests, and experiments; including screening, intervention, follow-up etc. *Reminder:* No personal or sensitive information can be sought under exempt guidelines. (If you intend to pilot a process before recruiting for the main study please explain.)

There will be two surveys. One will be delivered at the beginning of the study, and the second one will be delivered at the end of the study. I will also invite students to participate in a focus group discussion held on Moodle. Finally, I will collect transcripts from certain discussion forums on Moodle.

Attach all surveys, instruments, interview questions, focus group questions etc. 

5.3 Describe what non-participants will do during this period (activities and supervision if applicable):

If your subjects will be students, it is important that the study design not penalize students who will not be participating if not all students will be participating.

Non-participants will just disregard the surveys and focus group invitation.

5.4 How long do you anticipate this research study will last from the time you are determined to meet the criteria for exempt research?

Exempt research is generally considered short-term in nature. This office routinely inactivates exempt applications after five years from the time it was determined to meet the exempt criteria. If you think your project will extend beyond five years, contact the IRB office (612-626-5654 or irb@umn.edu).

I anticipate the research will last 13 weeks between the first and last survey.

6. Participant Population

6.1 Expected Number of Participants: 72

# of Male: 27	# Female: 45
---------------	--------------

6.2 Expected Age Range

Please confirm subjects are at least 18 years old, checking all that apply (you may not conduct research with subjects younger than 18 under exempt category two, if you would like to include subjects younger than 18, you must complete the full IRB application requesting expedited review if appropriate):

- 18-64
 65 and older

6.3 Describe the criteria for inclusion and exclusion of subjects in this research study.

Inclusion Criteria:


Students of WRIT 3562W-075, 076, 077

Exclusion Criteria:

N/A

6.4 Location of Subjects during Research Data Collection

Check all that apply:

- Elementary/Secondary Schools (include Appendix M) 
 Community Center, specify: _____
 University Campus (non-clinical), specify: _____
 Subject's Home, specify: _____
 International Location (include Appendix K): _____
 Other special institutions, specify: It is an online course, so wherever they are logging into the course website from.

7. Compensation

7.1 Will you give subjects gifts, payments, compensation, reimbursement, services without charge or extra credit?

- Yes.
 No.

If yes, please explain:

5 extra credit points out of a 500 point total

8. Recruitment

8.1 Are subjects chosen from records?

- Yes. Complete 8.1a-c

No. Continue to 8.2

8.1a What type of records:

- Medical
- Educational
- Employment
- Other: _____

8.1b Are the records publicly available?


- Yes.** Proceed to question 8.2
- No.** Proceed to question 8.1c

8.1c Do you already have permissible access to the private records? (i.e. through your job, volunteer work, internship, etc.)

- Yes.** Describe how you have permissible access.

- No.** You must ask the custodian of the record to make initial contact for you (describe how they will do this in question 8.2) and let the potential subject contact you if they are interested. Attach a letter of cooperation from the custodian of the record indicating that they will make initial contact on your behalf. Please note that even if the custodian is willing to give you the private list, if you do not have permissible access to the records, the fact that the custodian will give you the list does not create permissible access. The custodian will still have to make initial contact.

8.2 Describe the recruitment process to be used:

Attach a copy of any and all recruitment materials to be used e.g. advertisements, bulletin board notices, e-mails, letters, phone scripts, or URLs. 

Students who are currently enrolled in WRIT 3562W-075, 076, 077 will be invited to take the survey and participate in a focus group.

8.3 Explain who will approach potential subjects to take part in the research study and what will be done to protect individuals' privacy in this process:

Initial contact of subjects identified through records search must be made by the official holder of the record, i.e. primary physician, therapist, public school official.

I will provide the students the surveys using UM Survey and invite them to a focus group via email. Each student's survey responses and focus group participation will be kept anonymous.

9. Confidentiality

See [Protecting Private Data Guideline](#) from the Office of Information Technology (OIT) for information about protecting the privacy of research data.

9.1 Describe provisions that will be taken to maintain confidentiality of data (e.g. surveys, video, audio tape, photos):

I will use UM Survey, and create a survey in which all responses are anonymous. The focus group will use a Moodle chat. The identities will be coded and remain anonymous.

9.2 Describe the security plan for data including where stored and for how long, noting that you may not keep identifiable data indefinitely:

The data will be secured on the University of Minnesota's UM Survey page and Moodle. The identities of all the participants will be coded before analysis.

9.3 Will the PI have a link to identify subjects?

- Yes.
- No.

9.4 Will identifiable data be made available to anyone other than the PI?

- Yes.
 No.

If yes, explain who and why they will have access to the identifiable data:


10. Informed Consent Process

***Reminder:** If you are mailing a survey to subjects and asking them to return it to you, or doing a phone interview, you must send or read a consent statement which includes the same information as the consent form but is not signed.*

10.1 Describe who will conduct the consent process with subjects and how consent will be obtained:

I will provide a consent form in the email with a link to the surveys.

10.2 Recognizing that consent itself is a process of communication, describe what will be said to subjects to introduce the research: Do not say "see consent form". Write the explanation in lay language.

If you are using telephone surveys, attach telephone scripts. 

See attachment

10.3 Prepare and attach consent forms for review. For exempt category two research, it is not necessary to obtain signed documentation of consent (i.e. a signature). Please submit a 'consent information sheet' which does not include a signature line. The IRB office reserves the right to require that you obtain signatures, but in most cases it is not necessary.

Even though the IRB may determine that some research is exempt from the federal regulations, adequate provisions still need to be in place to protect research participants.

In making its consideration of exempt status, the HRPP/IRB office still has to determine that:

- a) The research involves no more than minimal risk to participants
- b) Selection of participants is equitable
- c) If there is recording of identifiable information, there are adequate provisions to maintain the confidentiality of the data
- d) If there are interactions with participants, there will be a consent process that will disclose such information as:
 - that the activity involves research
 - a description of the procedures
 - that participation is voluntary
 - name and contact information for the investigator
- e) There are adequate provisions to maintain the privacy of participants.

CONSENT FORM

The Role of Student Agency in Online Learning

You are invited to be in a research study of student agency in different learning environments. You were selected as a possible participant because of your enrollment in WRIT 3562W-075, 076, 077. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Andrew Virtue, Department of Writing Studies

Background Information

The purpose of this study is: to determine how different formats, including small groups, affects student agency in learning environments.

Procedures:

If you agree to be in this study, we would ask you to do the following things: Complete two surveys-one will be distributed near the beginning of the semester and the second one will be distributed at the end of the semester. We will also collect transcripts of certain forum discussions and invite you to participate in an online focus group discussion.

Risks and Benefits of being in the Study

The study has a few risks: First, your forum posts may be collected and reviewed. Your posts will be used to determine the type and quality of discussions that occur throughout the semester. Second, there are multiple open-ended questions on the surveys. However, these surveys will remain anonymous using the UM Survey system.

(If there are significant psychological risks to participation, the subject should be told under what conditions the researcher will terminate the study)

The benefits to participation are: determining beneficial pedagogical strategies in online environments.

Compensation:

You will receive payment: 5 extra credit points for participation. These points will be disbursed at the end of the semester based on the completion of the two surveys and participation in a focus group.

Confidentiality:

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records. Study data will be encrypted according to current University policy for protection of confidentiality.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships. If you decide that you would not like your forum posts to be collected, please email Andrew Virtue (virtu005@umn.edu) and he will make sure your forums are not collected.

Contacts and Questions:

The researchers conducting this study are: Andrew Virtue and Laura Gurak. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact them at 212 Nolte Center, 612-624-1784, gurakl@umn.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

Pre-Survey Questions

1. Male or Female
2. What is your academic level?
3. How old are you?
4. How often do you use the internet a week?
5. How many courses have you taken in a “face-to-face” setting?
6. How many courses have you taken in a partially online/hybrid course setting?

7. How many courses have you taken in a completely online format?
8. My impression of online courses are that they make it easy to interact with my instructors
9. My impression of online courses are that they make it easy to receive prompt feedback from the instructor
10. My impression of online courses are that they make it easy to work with other students
11. My impression of online courses are that they make it easy to allow me to be more effective with my time
12. My impression of online courses are that they have allowed me to succeed in my coursework
13. My impression of online courses are that instructors manage online courses effectively
14. My impression of online courses are that they are more effective than face-to-face courses
15. My impression of Moodle is that it is an effective tool for online learning
16. My impression of online courses are that they encourage student interaction

17. Based on your previous experience with online courses, do you interact a lot with your classmates? If so, how does this affect your learning experience?

18. What one thing would you change to make your previous experience with online courses more effective?

Post-Survey Questions (For the control group-the Post-Survey would mirror the Pre-Survey, but ask specifically about WRIT 3562)

1. Male or Female
2. What is your academic level?
3. How old are you?
4. How often do you use the internet a week?
5. My impression of this online course is that it makes it easy to interact with my instructor
6. My impression of this online course is that it makes it easy to receive prompt feedback from the instructor

7. My impression of this online course is that it makes it easy to work with other students Compared to other online courses, my impression of this online course is that it was easier for me to be more effective with my time
8. My impression of this online course is that it has allowed me to succeed in my coursework
9. My impression of this online course is that the instructor managed it effectively
10. My impression of this online course is that is was more effective than face-to-face courses
11. My impression of Moodle is that it is an effective tool for online learning in this course
12. My impression of this online course is that it encouraged student interaction
13. Based on your experience with this online course, did group interaction affect your learning experience? If so, how (please give specific examples)?
14. What one thing would you change to make your experience with this online course more effective?
15. How did the responsibility of being a weekly Group Moderator and rating your peers' work affect your experience with the course?

Focus Group Questions:

1. What are the significant differences that you observe between face-to-face courses versus online courses?
2. How important is interacting with your classmates in an online course? How does this compare to classes in a face-to-face setting?
3. What are the most important components of a class that help you learn and succeed in the course?

(These questions are only for the class with the small group format)

4. Does working in a small group throughout the semester affect how you engage with WRIT 3562? If so, how?
5. Does being a Group Moderator change how your learning and engagement with WRIT 3562? If so, how?