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dissertation entitled

PEER RESPONSE OF DIGITAL AND NON-DIGITAL TEXTS
IN A COMPOSITION CLASSROOM

presented by

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has been accepted towards fulfillment
of the requirements for the

Doctoral degree in Rhetoric and Writing

Major Professor's Signature

10-9-09

Date

PEER RESPONSE OF DIGITAL AND NON-DIGITAL TEXTS IN A COMPOSITION CLASSROOM

By

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Rhetoric and Writing

2009

ABSTRACT

PEER RESPONSE OF DIGITAL TEXTS IN A COMPOSITION CLASSROOM

By

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The practice of peer response of student texts has long been a staple of the composition classroom, but existing peer response approaches do not easily adapt for use with digital texts (e.g., digital movies or slide presentations). This study uses grounded theory methodology to examine peer response of digital and non-digital, print-on-paper texts in a first-year university writing classroom. Through qualitative and quantitative analyses of response session transcripts, classroom artifacts, and students' responses to multiple surveys, this study focuses on the differences in how peer response is implemented and in the feedback offered when students engage in peer response of digital and non-digital texts.

The results of this study indicate a significant number of differences between the ways students in this classroom responded to their peers' digital and non-digital texts: students offered far more comments in non-digital sessions, and focused those comments more heavily on sentence-level concerns (e.g., punctuation, word choice, phrasing), while in digital peer response sessions, students focused their comments on more global, whole-text concerns (e.g., organization, thesis). Students also seemed to take on different roles in the different peer response sessions, responding as fellow writers in the non-digital sessions but taking on a more passive "audience" when discussing the digital texts.

Additionally, students reported the development of fewer and less-detailed plans for the revision of their texts following the digital peer response sessions.

Though neither the digital nor the non-digital sessions can be characterized as entirely positive or negative, my results emphasize the need for approaches to peer response designed specifically for digital texts, and to that end, I conclude with suggestions, drawn from my results, intended to contribute to the development of such approaches.

ACKNOWLEDGEMENTS

While there's no way I could possibly acknowledge everyone whose help and support over the past few years has helped me make it to this point relatively unscathed, there are a handful of individuals to whom I am particularly indebted, and to whom I want to offer my sincerest thanks here:

To my committee chair, Danielle DeVoss, who regularly managed to read and respond to my drafts with superhuman speed, and whose feedback and encouragement over the past eighteen months kept me moving forward;

To my committee members, Marilyn Wilson, David Sheridan, and Nancy DeJoy, whose support, guidance, and enthusiasm throughout this entire process have been invaluable;

To my wonderful friends, most especially Howard Glasser, Mike McLeod, Amy Pavlov, Jeremy Francis, and Robin Revette Fowler, who were always willing to offer dissertation feedback or advice when I needed it, equally willing to talk about anything *but* the dissertation when I needed a distraction, and incredibly patient on those frequent occasions when I apparently needed both at the same time;

To my brother Allen, who had the misfortune to share a house with me during the Year of the Dissertation, and who managed to keep me sane through judicious use of Skip-Bo and frosties;

And finally, to my parents, who have always believed that I could do anything, and who occasionally manage to convince me of that, as well. If there's anything in my life that I have a right to be proud of, it's that they are proud of me.

For Mom and Dad.

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CHAPTER 1: INTRODUCTION

It's no longer profound to claim that the definition of "composition" as it is understood in composition classrooms is changing; scholars, theorists, and instructors have been writing, arguing, revising, and rewriting about this phenomenon for decades (e.g., Elbow, 1968; Hairston, 1982; Crowley, 1998; Faigley, 2004; Yancey 1997, 2004; Bolter and Grusin, 1998; Kress, 1997, 2003; Kress and van Leeuwen, 2001; Hocks, 2003; DeVoss, 2002, 2007; Hawisher and Selfe, 2004; Ball, 2004; Lankshear and Knobel, 2003), and the only disagreements seem to revolve around *how* the definition is changing and how theorists and practitioners should respond to that change. It would be far more controversial—if not ridiculous—to claim that the definition of composition (or audience, or authorship, or any one of a number of aspects of the meaning that is made in comp classrooms) has remained at all constant over the last thirty years, which is why it's so surprising that there is at least one significant feature of composition pedagogy that *has* remained more or less the same since the 1970s: the practice of in-class peer response. Despite an apparent state of general agreement among composition scholars about the changing definition of composition—judging by the number of published texts either celebrating or bemoaning it—the practice of in-class peer response[1] continues to be implemented in classrooms today in much the same ways as it has been implemented for over three decades.

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[1] Given the variety of ways in which peer response is enacted in classrooms, a broad definition of the practice is necessary: for the purposes of this review of the literature, peer response will be understood as the act of students, within the framework of a classroom activity, offering comments and/or suggestions on the work of their peers as part of the process of composition. This definition of peer response, though broad, serves to exclude from examination the practice of peer response within writing centers and the response that occurs within non-academic writing groups—both of which have undergone their own related, but distinct, evolutions.

This apparent contradiction serves as the basis for the research project at the center of this dissertation: an examination of the ways in which the media in which student texts are composed affects the practice of peer response in that classroom. In order to better understand this phenomenon, I collected data about two instances of in-class peer response in a first-year writing classroom at Michigan State University; at two different points during the semester, I made video- and audio-recordings of six peer response groups, of two to four students each, as they offered each other feedback regarding two different writing assignments—one print-text, and one digital. I also collected survey data from each member of these groups regarding their post-session responses to the sessions themselves, in order to gauge their perceptions of, and attitudes towards, what occurred during those sessions.

In this chapter, I discuss the factors that influenced the development of this project and its guiding research questions, beginning with my own positioning regarding peer response, digital writing[2], and the teaching of composition, and concluding with the pilot study I conducted at Michigan State during the spring semester of 2007.

My experiences with peer response

I've been a believer in the power of peer response since 1996, when, as a sophomore in college, I first started working as a tutor at my university's writing center. I came to that work knowing nothing about the theory behind the practices and protocols

[2] In defining digital writing for the purposes of this project and my own work, I needed an understanding of digital writing that encompassed not only the texts themselves, but also the production, consumption, and distribution of digital texts. Therefore, I use the definition of the term offered by the Writing in Digital Environments (WIDE) Research Center Collective in 2005, who wrote, in part, that "digital writing is the art and practice of preparing documents primarily by computer and often for online delivery. Digital writing often requires attention to the theories and practices of designing, planning, constructing, and maintaining dynamic and interactive texts . . . . Texts that may, and often do, include multiple media elements, such as images, video, and audio."

I was taught at orientation, but I was convinced by the results—when I worked with my writing center clients, most of whom I met with on a weekly basis, I saw progress in both their abilities as writers and in their attitudes towards writing. That was enough to sell me on the "correctness" of the approaches that I and my writing center colleagues were required to use in our sessions: asking clients to read their work aloud, never writing on a client's paper, asking questions rather than making statements, and avoiding value judgments in favor of more specific criticism. It wasn't until years later, as a graduate assistant/writing "consultant"[3] at the Writing Center at Michigan State University, that I was first introduced to the wide body of literature on writing center theory and practice– in effect, this was my first exposure to the idea that a writing center was a site of (sometimes heated) intellectual discourse, and that there was no consensus regarding what constituted "proper" writing center practice.

Thanks to the MSU Writing Center administration's[4] mandate that writing consultants be well-versed in the theories that underpinned their work, I was exposed to the work of many of the foundational writing center theorists; particularly compelling to me in those early days were North's "Idea of a Writing Center" (1984) and "Revisiting the Idea of a Writing Center" (1994), Bruffee's "Peer Tutoring and the 'Conversation of Mankind'" (1984), and Lunsford's "Collaboration, Control, and the Idea of a Writing Center" (1991).

These texts opened my eyes to the connections that could—and should—be made between writing center work and the work of the writing classroom, the university, and

[3] This term was used at MSU instead of "tutor" or "writing assistant"
[4] At this time, the director and associate director of the Writing Center at MSU were Patricia Lambert Stock and Janet Swenson, respectively. I owe a great deal to them and their commitment to consultant professional development and theoretical grounding.

the world outside academia. This marked the beginning of my intellectual curiosity about the practice of peer tutoring and peer response, and also the moment that I began to understand the context-dependent nature of responding to the writing of others, including and especially the important distinction between classroom peer response and peer tutoring in the context of a writing center. Though I had facilitated many peer response groups in writing classrooms as an undergraduate peer tutor, I had always assumed that the practices that worked for writing center tutoring sessions would apply just as effectively in peer response groups. I began to understand that though the practices were indeed related, peer response groups and writing center sessions worked under different constraints and towards different goals, and therefore required a different repertoire of approaches and skills to be successful.

My experiences with digital writing

My understanding of digital writing in the composition classroom was profoundly shaped by my experiences as a graduate assistant during my time at MSU. The graduate assistantships I held from Fall of 1999 through Fall of 2007 had me either teaching writing or working with writers in the Writing Center each semester, and during that time, the resources available to instructors and students at the university for composing with digital media increased exponentially. Computer lab hardware was upgraded, reasonably-current versions of digital composing software (e.g., Apple iMovie, Macromedia[5] Dreamweaver and Fireworks, Adobe Photoshop) was purchased and installed, classrooms in many buildings across campus became "tech-enabled" thanks to the addition of LCD projectors and laptop/computer carts, and wireless access slowly

[5] This predated Adobe's acquisition of Macromedia.

expanded across campus, growing from one or two temperamental wireless hotspots in the library and student union to wireless connectivity campus-wide.

With this increased access to digital writing technologies and supportive infrastructure at MSU came—at least for those of us fortunate enough to teach courses within the Department of Writing, Rhetoric, and American Cultures program or to be students within the Rhetoric and Writing program—an emphasis on instructor professional development and training necessary for those technologies to be used in pedagogically effective ways. One such course was WRA 415—Digital Rhetoric, which I took in Fall Semester 2004. Though I had toyed around with making web pages[6] since the late 1990s, I consider this course to be my first real exposure to the concept of digital composition. It's probably more accurate to say that this course marked the moment that I first began to appreciate what it might mean to *compose* a digital text in the same way that I composed my non-digital work—the course and its work and discussions helped me begin to recognize the options and assumptions at play when I engaged in digital composition, and exposed me to the wide range of theoretical approaches to what it can mean to represent meaning digitally. It was an awakening to how very much I didn't know about digital writing, and about how much I had come to take for granted about *non*-digital writing, and the questions I found myself asking were questions I thought my first year writing students could benefit from asking, as well.

[6] I intentionally avoid the terms "web design" or "webpage composing" here—that connotes a level of understanding of audience, purpose, and principle that I most definitely didn't reach until much later. I was making web pages—I certainly wasn't "designing" them.

The problem of digital writing and peer response in my own writing classroom

For me, this problem of peer response of digital writing manifested itself when I encountered a conflict between my role as an instructor of first year writing and my role as a writing center tutor/ administrator: as a writing instructor, I wanted to offer my students the opportunity to compose digital texts[7] without abandoning the emphasis on peer response that I, as someone deeply committed to writing center work, saw as an integral part of my goals for the course and for my students. My experiences as a writer and a writing center tutor had convinced me of the value of engaging in conversation about my writing and the writing of others, but the nature of new media composition—both of its processes and of its resulting texts—seemed an uncomfortable fit with the "small-group-read-aloud" model of peer response with which I was most familiar.

It was when I began to search the literature for mention of other more relevant models of peer response that I realized none existed—I couldn't find a single book, article or resource that provided an approach to facilitating peer response of digital texts[8], let alone one that would work for a classroom in which students were composing both digital and print-on-paper texts. While there were publications that discussed the affordances of digital technology in relation to peer response (e.g., Breuch, 2004; Hewitt, 2000), they focused not on approaches to peer response of texts composed using digital technologies, but instead on the ways in which such technologies can provide opportunities for online or asynchronous peer response.

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[7] See Chapter 2 for a more detailed description of the digital composing opportunities afforded by the Writing Rhetoric and American Cultures undergraduate and Rhetoric and Writing graduate programs at Michigan State University.

[8] Several subsequently published texts do offer resources intended to help teachers or writing center tutors respond in productive ways to multimodal/digital texts, but none offers a model of classroom peer response.

It soon became clear that while new modes of communication and composition are emerging and becoming more commonplace in both academic and non-academic settings, research into peer response has lagged behind, rarely—if ever—venturing beyond a definition of "text" as uni-modal print-on-paper.[9] In order to take full advantage of the benefits that peer response can offer to students composing in new, digital modes (or to determine if, in fact, there are even benefits to be had), new approaches to peer response were required—approaches that not only took advantage of the theoretical traditions surrounding peer response of print texts, but that also incorporated the growing body of research and theory regarding digital and new media writing and its inclusion within composition classrooms. Since I could find no research into what these approaches might be, I decided to conduct my own.

Researching digital peer response: A pilot study

In Spring 2007, I began to conduct what I thought would become the primary research for my dissertation, and what turned out to be a pilot study that greatly informed the research I discuss here. My research questions for this study sought to examine whether student attitudes towards peer response were influenced depending on the media in which the texts under discussion were composed, and to that end, I recorded audio of peer response groups meeting during each of four in-class peer response sessions in one first-year college composition classroom, each "session" consisting of two class meetings. In addition, I collected classroom artifacts (first and final drafts of print and

[9] The recently published *Multimodal Composition* (Selfe, 2007) includes a chapter written by Kara Poe Alexander that focuses on revision and peer review of multimodal texts, and that offers many useful suggestions for helping students learn to rhetorically analyze multimodal texts response and a model for "peer review studio" that requires whole-class workshopping of student work but otherwise differs hardly at all from previously-published peer response approaches.

digital student work, peer response sheets, assignments sheets and rubrics) and solicited student responses to two surveys about in-class peer response--one at the start of the semester, and one at the end.

When the semester was complete, I had what can only be described as a formidable mound of data to analyze, so I was surprised, to say the least, when I realized that I didn't have what I needed. In my initial passes through the audio data, I found myself faced with session events that both seemed significant and defied my attempts at interpretation; there were silences, abrupt changes in tone or attitude, even what seemed from the audio to be obvious and avoidable misunderstandings that I couldn't begin to account for without the ability to see what was happening. *Something* significant was happening in these sessions—something that seemed to be tied to whether the sessions were centered on print-based or digital texts—but in order to examine it, I needed to rethink my approach.

The role that body language and non-verbal cues can play in peer response sessions did not come as a surprise—by the time I began the pilot study, I had both practical knowledge (thanks to more than seven years as a writing center tutor/consultant) and a theoretical understanding (e.g., from the work of Harris, 1992; Hewitt, 2000; Wolfe, 2005) of the degree to which peer response can rely on non-verbal means of communication. My decision to not capture visual data during the pilot study was the result of many considerations, including a classroom configuration that would have made videotaping individual peer response sessions extremely intrusive, if not impossible, and would therefore result in undue burden on the instructor as well as likely rejection from Michigan State's Institutional Review Board. I knew that a decision not to capture video

data would be a weakness in the study design that I would need to justify in the eventual write-up of my research—I had not expected that such a decision would make the research itself impossible.

As frustrated as I was to discover that I would need to restart data collection in a different classroom the following semester, this need to start over afforded me the opportunity to take advantage of a facet to the problem that I hadn't originally considered: that there might be a purely non-verbal difference in students' approaches to peer response depending on the media used to compose the texts under discussion, and that focusing on this difference as a starting point might offer insight into other potentially significant differences between what I've come to refer to as print-text peer response (PPR) and digital-text peer response (DPR).

My guiding research questions

My revised research project was guided by two research questions:

1. Do participants in a peer response session use different modes of response while offering feedback in print-based text peer response (PPR) and digital text peer response (DPR) sessions?
2. How, if at all, do the modes of response employed relate to whether the text under discussion is digital or print-based?

This dissertation is the result of the research undertaken to examine these questions further, and in the chapter that follows, I offer a review of the literature that has informed my understandings of the ways in peer response and digital writing have come to be used in composition classrooms. In Chapter 3, I discuss my selection and

implementation of grounded theory methodology and the steps taken to generate and analyze the study data. Chapter 4 provides a discussion of the results of my analysis, and Chapter 5 offers conclusions from and further implications of this research.

CHAPTER 2: A REVIEW OF THE LITERATURE

In the previous chapter, I recall the experiences that led to the development of the research questions that form the foundation of this research. However, before I can begin to examine how the practices of peer response and digital composition influence and interact with each other, it is necessary to better understand the reasons behind the strong support each has found from composition theorists and practitioners—in other words, the reasons why neither peer response nor digital composing is likely to be abandoned for the other, despite problems that may be caused by their simultaneous presence in the classroom.

As I read into the literatures of peer response and digital composition—which were, for the most part, entirely separate from each other—I began to recognize parallels between the arguments most frequently made in favor of each; these arguments often touched on one or more of three points: 1) [Composing with or for digital media/offering feedback to peers] is a regular and important part of everyday communication activities, and should therefore have a place in composition classrooms; 2) [Digital writing/peer response] has the potential to help students develop a strong sense of audience, which in turn can help them become stronger writers; and 3) [Digital writing/peer response] provides opportunities for learning that other classroom approaches and activities do not. Later in this chapter, I will delve more deeply into these parallel arguments, but first I will provide two broad overviews, one of peer response in the writing classroom and one of digital composition in the writing classroom, in order to establish the context in which these parallel arguments in support of each practice are made.

Peer Response in the Writing Classroom: An Overview

Though writers in both academic and non-academic settings have been sharing their writing and offering each other feedback for centuries (Gere 1987), the popularity and longevity of the practice of peer response in composition classrooms owes much to the increased focus by theorists in the late 1960s and early 1970's on student writing processes; this time of "intense fermentation, reflection, and innovation" in the study and teaching of writing (DiPardo 119) was greatly influenced—even prompted—by research in the field of cognitive psychology, many of the founders of the process movement having built upon or drawn their inspiration from the works of cognitive theorists like Piaget (1971), Vygotsky (1978; 1986), and Bruner (1978), each of whom, though the individual approaches differed, emphasized the importance of social interaction and experimentation in cognitive development and the learning process. Whereas the methods of teaching writing at the time emphasized correctness of product and form above all else, these new theories of learning served as the basis for the calls for new pedagogical approaches made by now-canonical educational theorists like Elbow, Moffett, and Macrorie—calls for a move towards more "student-centered" approaches to the teaching of the language arts, in which classroom experiences would be crafted to facilitate these kinds of generative social interactions (Clark 10-11).

These theorists and others believed that writing, formerly treated academically as a "silent and solitary activity" with "no community or collaboration," should instead be perceived to be "enhanced by working in, and with, a group of other writers, perhaps especially a teacher, who gives vital response including advice" (Emig, 1971, pp 140-141). Peer response was often seen as an important component of this collaborative,

student-centered writing classroom, and teachers, practitioners, and theorists began advocating for the use of peer response groups in English language arts classrooms as part of their calls for a more collaborative, less product-oriented approach to the teaching of writing. Murray (1971) called for instructors to see that "the text of the writing course is the student's own writing. Students [should] examine their own evolving writing and that of their classmates, so that they study writing while it is still a matter of choice, word by word" (91). Elbow (1968, 1971) advocated for the use of an expressivist approach to writing pedagogy, one in which the students' experiences and perceptions are seen as valid—even valuable—topics for academic writing; Macrorie (1976) argued that experience with peer response is vital to student success in the composition classroom—a way for beginning writers to gain experience via the classroom community of writers; and Moffett (1968) proposed a language arts curriculum in which the practice of offering and receiving peer feedback is used to facilitate students' progression from reflective communication ("interpersonal communication within the self") to the opposite end of the continuum, publication ("impersonal communication between unconnected individuals, unknown to one another") (p.33).

By the late 1970s and early 1980s, most of the literature of composition pedagogy espoused theories of collaborative learning, and with them the idea of the writing process paradigm (Hairston 1984), which soon adopted peer response as a fundamental feature; academic writing was now seen as a recursive and communal activity, through which students could "gain a stronger sense of the degree to which knowledge, like writing itself, is a social phenomenon, and the degree to which the social context in which we learn permeates what we know and how we know it" (Bruffee 116). Students met

regularly with peers to discuss writing, and were thought to find more value in "small group meetings with each other than from the exhausting one to-one conferences that the teachers hold" (Hairston 17). Peer response was about more than just correcting papers[10]—it was about forming the "critical capacities which will serve [students] well as writers" (Gere and Abbott 378).

The "writing as process" movement soon moved from rallying cry to whipping boy, with critics "point[ing] not so much to the classroom shortcomings of process pedagogy as to the failure of the process movement to fulfill the goal of "empowering" students as part of a larger project of creating equality through education" (Faigley 68). However, the belief that learning and writing required learners to interact with each other (Gillespie and Lerner 13) has remained, and with it, the practice of peer response. This belief in and reliance on collaborative classroom approaches continues throughout the majority of the literature being published on the teaching of composition[11], and peer response groups have become the most popular incarnation of collaborative learning in post-secondary writing classrooms (Highberg et al. 3).

Digital Writing in the Writing Classroom: An Overview

Digital composition[12] as a regular part of the work of the writing classroom is a fairly recent and still-spreading phenomenon, but digital technologies in writing classrooms—and the concurrent discussions, arguments, and concerns about how such

[10] Though it was sometimes about that, too.
[11] There are certainly those who criticize the collaborative, social constructivist paradigm (e.g., Stewart 1987; Faigley 1992; Murphy 1994), but their voices are drowned out by the overwhelming number of publications that either explicitly support the paradigm or take its precepts for granted.
[12] As described in the previous chapter, my definition of digital writing encompasses the production, consumption, and distribution of texts primarily composed with and for computers and usually composed of multiple media (e.g., image, text, sound, movement, interactivity).

technologies can and should be used—have been around for decades. Digital technologies have frequently been the catalysts for arguments surrounding what should constitute the "legitimate" work of the composition classroom, and those instructors and composition theorists who desire to engage in new ways with technology in their teaching or theorizing have regularly met with resistance from "those more senior and/or in more powerful institutional positions [who] often have limited respect for the depth and breadth, and rigor of [their] work" (Inman 107).

The archives of *Computers and Composition* (which started in 1983 as a newsletter and now exists as both an online and a print journal) offer a window into the history of digital technologies in the writing classroom. Those first issues of *Computers and Composition* featured articles describing the use by writing teachers of word processing programs, the design (frequently by writing teachers themselves) of custom software programs for use in writing classrooms, and the difficulty of obtaining acceptance for computers as valid pedagogical tools in writing courses. In the intervening years, the articles in *Computers and Composition* have traced the invention, adaptation, and incorporation into teaching practice of increasingly complex digital technologies, and document the challenges experienced by the practitioners using them. In that time,

> a steady stream of technological developments has thrust computers into an ever more prominent role in the teaching, learning, and uses of literacy. . . . The new technology—from ever more efficient word processing to computerized classrooms, e-mail, chatrooms, MOOs, listservs, bulletin boards, distance learning systems, digitalized archives, on-line databases, and the myriad Web applications—has created major transformations in the environments in which people read, writing, and learn. (*Research on Composition*, 96).

The discipline, at least as it is perceived by those willing to acknowledge the presence and importance of digital technologies, has existed in a state of constant tech-enabled revision.

However, the present moment, in its unprecedented access (for some) to digital writing technologies and its willingness (again, for some) to accept the products of digital composition as texts worthy of research and study, is unique; as McKee and DeVoss point out in 2007, "Never before, for instance, have writers (of certain economic classes and at particular institutions) had at their fingertips the means to integrate text and graphics (and, for the tech-savvy, animation, audio, video, and other elements) and to publish and widely distribute digital products to virtual spaces" (6).

The argument for the continued inclusion of digital media as an object of study in writing courses relies on the assumption that the purpose of the composition classroom is not media-dependent—that its purpose is to produce active, critical producers and consumers of information by enabling students to assess the usefulness of information as it is presented to them, to analyze and assimilate the information they deem relevant to their purposes, and to repackage and redistribute that information in the most effective means available. These goals are not restricted to alphabetic print literacy, but would instead are "rooted in the facilitation of the decoding of texts" (Takayoshi, Hawisher, and Selfe, 2007), regardless of the media with which those texts are composed or disseminated. This broader understanding of the purpose of the writing classroom requires a broader understanding of "literacy"—one in which "literacy" isn't limited to a "set of stand-alone skills" required to produce and consume print-based alphabetic texts, but instead is understood as "meaning making practices that must be understood in

context" (Williams 2007, xi).

The calls for widespread change in how literacy is understood and defined in writing classrooms[13] are pervasive; theorists and practitioners alike have called for recognition of "the transformation of singular print-based literacy into hyphenated, plural, or multiple literacies that acknowledge the diversity of information sources and media that people access, negotiate, and redeploy in everyday contexts" (Luke 398). Evidence of this shift includes not only the oft-cited New London Group's "Pedagogy of Multiliteracies" and the numerous practical and theoretical texts that use part or all of its proposed pedagogical framework as a jumping-off point, but also the relevant position statements published by organizations such as the National Council of Teachers of English (NCTE) and the Conference on College Composition and Communication (CCCC), one of which proclaims that "the curriculum of composition is widening to include not one but two literacies: a literacy of print and a literacy of the screen" (CCCC Position Statement on Teaching, Learning, and Assessing Writing in Digital Environments); as well as the handbooks, CD ROMs, and other resources intended to assist writing instructors in teaching, researching, and discussing digital writing (e.g., Wysocki, et. al., 2004; Selfe, 2007; McKee and DeVoss, 2007). In conjunction with this increased attention, "[w]riting is no longer confined (if it ever was) to standard letter-sized paper, set with default margins, default font sizes, default font faces, and default paragraph spacing. Digital videos, soundscapes, and visual essays are increasingly common in writing curricula, both in first-year writing courses and in advanced seminars" (McKee and DeVoss 9), and "interactive digital media" are increasingly

[13] Or, alternately, calls for recognition that this change in understanding and definition has, in fact, already occurred.

represented—at the post-secondary level at least—in the texts composed and the texts analyzed in writing classrooms (Hocks 631).

Justifications: Peer response and new media in the writing classroom

In the introduction to this chapter, I briefly mentioned the parallel arguments that I identified within the bodies of literature surrounding peer response and digital writing. In the pages that follow, I examine each of these three pairs of arguments in greater detail, and conclude with a discussion of the significance of these similar threads of justification running through the two bodies of literature.

First Justification: Connecting the writing classroom to the "real world"

1a. "Real world" writing tasks involve sharing, discussing, and responding to the work of colleagues, and the practice of teaching writing should reflect this reality.

A quick survey of the acknowledgements included by authors in their books and articles would reveal the extent to which many writers consider sharing their works-in-progress with others a part of their writing process. Whether it's a government researcher thanking the interns who assisted on a project, a mystery writer thanking the medical experts who helped her understand the workings of a rare poison, or a journalist acknowledging the work of editors and fact-checkers, first-time and many-times-published authors alike list the names of mentors and colleagues whose comments and suggestions have influenced their texts in some generative way, and readers take these acknowledgments in stride, if they are read at all. Acknowledgement that a writer has had assistance in crafting a text is not shocking, and one is not likely to think less of a

text because its author turned to colleagues for feedback. Yet in many classrooms, instructors "assess individuals as the personal bearers of knowledge, and [...] approach pedagogy in terms of trying to get knowledge into individual heads" (Lankshear and Knobel 176, emphasis in original). Student academic discourse frequently requires individuals to work alone—with the exception of collaborative activities like peer response, which enable students to develop the skills and abilities they'll need to be successful members of these non-academic "socially interactive communities of learners" (Luke 398).

The advent and constant improvement of digital tools—especially those that facilitate networking and communication—have only increased the ease with which drafts and ideas can be exchanged, thereby increasing the likelihood that texts are composed collaboratively. As a composition researcher whose own work reveals the impact of digital technologies in her examinations of the affordances and constraints of, first, print and eventually digital portfolios, Kathleen Yancey describes these new(ly) collaborative spaces:

> Like 19th-century readers creating their own social contexts for reading in reading circles, writers in the 21st century self-organize into what seem to be overlapping technologically driven writing circles, what we might call a series of newly imagined communities, communities that cross borders of all kinds-nation state, class, gender, ethnicity. Composers gather in Internet chat rooms; they participate in listservs dedicated to both the ridiculous and the sublime; they mobilize for health concerns, for political causes, for research, and for travel advice. (Yancey 2004, p 301)

Yancey emphasizes that these activities she describes are, for the most part, engaged in voluntarily by members of these writing communities, and furthermore that these writers have learned to negotiate these diverse communities and complex writing tasks largely outside of schools—since, and this is Yancey's point, such activities have rarely been

seen as appropriate subjects for academic engagement. However, Yancey argues, such activities can and should become part of the work of any composition classroom that seeks to prepare students for "real-world" communication and interaction; our writing classrooms should prepare students to negotiate the collaboration that so frequently characterizes the writing tasks that they will encounter after they graduate.

1b. "Real world[14]" communication tasks involve composing and interpreting digital media texts, and the practice of teaching writing should reflect this reality.

Digital media are increasingly being used to communicate messages that used to be the exclusive domain of print or face-to-face communication (for example, classified ads vs. craigslist.org, personal letters vs. email messages, scribbled notes vs. text messages or Twitter "tweets"), and many students today come to their first-year college writing classrooms as experienced (though perhaps not critical) producers and consumers of digital texts (Selfe and Hawisher, 2004). Many of these students are—though they may not be aware of it—already well versed in decoding meaning presented in multiple and digital media, and classes that take advantage of this literacy have the opportunity to help students develop the kind of "intertextual dexterity that may be as important if not more so than the memorization of facts" (Kist 42).

For many of the students currently enrolled in or getting ready to start undergraduate degree programs, texts composed solely of printed alphabetic characters fail to represent the range of their meaning-making practices; for these students, "questions of communication and composition will absolutely include the visual, not as attendant to the verbal but as complex communication intricately related to the world

[14] I use this in the colloquial sense, to refer to life outside of academia and/or after graduation.

around them" (George 32). And not just the visual: these students could also be used to meaning that is communicated aurally (Halbritter, 2006), through movement (Schaffner) or interactivity (Zoetewey and Staggers, 2003; Murray, 1998), as well as through carefully crafted combinations and juxtapositions of these different textual aspects (Sorapure, 2005; Digirhet.org, 2006). Approaches to teaching composition that don't take into account the "technology rich and image saturated" spaces in which many students live (George 32) fail not only to address the needs of those students (The WIDE Research Center Collective, 2005) but also fail to acknowledge that the "rapid evolution of digital technology has pushed the possibilities of composition well beyond print to visual, audio, and video texts" (Williams 2007, x). Given that information is increasingly presented to the public through digital media, students who aren't prepared to perform the complicated rhetorical tasks necessary for understanding both digital and print-on-paper texts will be, at best, uninformed—and at worst, subject to manipulation and misinformation from those better able to negotiate and manipulate those media.

Second Justification: Awareness of audience

2a. Peer response can facilitate an increased awareness of audience in student writers.

First-year writing students can fall into the trap of failing to consider any audience beyond the teachers from whom they will receive their final grades, even when the assignment explicitly requires students to assume they are writing to a hypothetical audience other than their instructor (Wootten 1981), and instructors often turn to peer response as a way of instilling this sense of audience in student writers. In Concepts in Composition: Theory and Practice in the Teaching of Writing, Irene Clark refers to peer

response as "one of the most useful strategies [she] know[s] of for helping students gain awareness of audience" (157). Through peer response, students are exposed to multiple responses to their work, which can result in the development of what Howard refers to as a "heightened sense of audience" (60), and frequently, this increased awareness of and attention to the needs and expectations of an audience is cited as the primary benefit that peer response groups can provide to student writers.

Theorists and practitioners have offered many different strategies for encouraging students' awareness of audience through peer response; for example, Smagorinsky (1991) offers a framework for structuring what he refers to as "role-playing peer response groups," in which peer responders assume the role(s) of their academic text's intended audience(s) in order to offer, theoretically, more accurate and useful feedback to the author. In the illustrative example Smagorinsky provides, students compose drafts of their college application essays, and then are placed in mock "admissions boards" to evaluate and offer feedback on the essays written by their peers. By actively taking on the role of the application essays' intended audience, students are given an opportunity to identify not only what the needs of a specific audience might be, but also which of the many different approaches to meeting those needs might be most effective.

Lyons (1981) advocates for a more structured approach; he outlines what he calls the "Praise, Question, Polish" (PQP) approach to peer response, in which students follow a predetermined framework of offering praise for what was done well, asking questions for clarification, and finally making suggestions for improvement. Lyons even recommends that the guiding questions that direct students through this framework be introduced to students as early in the composing process as possible, and should also be

displayed prominently in the room during peer response sessions. By carefully crafting and controlling the ways in which the peer "audiences" respond, Lyons hopes to instill in student writers an approach to determining the needs of a given audience that will stay with them even after his PQP framework is no longer there to guide their responses.

Danis (1988) recommends the approach introduced by Ponsot and Deen in *Beat Not the Poor Desk—What to Teach, How to Teach It, and Why,* in which students are restricted to responding only with observations, and not with evaluations or inferences. Danis argues that through repeated experience with this kind of peer response, students will strengthen their abilities to focus on details and to clearly articulate what they've noticed, which will lead to those students eventually becoming "more effective writers, more astute critics, and more purposeful learners" (358). This is similar to what Elbow (1971) refers to as the development of an "internal editor," who can perform the function of a response group even when one isn't present, and what Zamel (1982) calls "the crucial ability of reviewing their writing with the eyes of another" (206), a heightened sense of awareness of how their texts will be read that will help them produce better texts than they would have otherwise.[15]

And there is indeed evidence—anecdotal and otherwise—to support the claim that students who receive feedback on their writing from their peers produce better papers than those who don't (e.g., Britton, et al., 1975; Bruffee, 1993; Gere, 1987, 1990;

[15] This justification for the use of peer response has its detractors, and understandably so; when offered as a sole reason for peer response, it reduces the purpose to mere improvement of 'product'—a throwback to the kind of pedagogy that spawned the process writing movement in the 1960s and 70s. However, despite calls for different approaches to assessing the work of the composition classroom (e.g., Yancey, 2004; Huot, 2002; Broad, 2003), assessment of student writing—digital or otherwise—is still frequently the yardstick with which the success or failure of the student is measured, and instructors must take this into account—if peer response didn't help students improve the written work through which they will be assessed, instructors could hardly justify its use.

Moffett, 1983; Spear, 1988). Much of the literature on peer response, especially that written by instructors, offers "improved student final products" as side benefit to the implementation to peer response—namely, that students can help each other fix many of the mechanical, syntactical, and other errors in their writing, leaving only the more complex issues for the teacher to address while responding to drafts of student work. Indeed, many instructors see peer response as a way of offering an entire class of students the more personalized attention that they themselves don't have time to give (Belcher). By allowing students to respond to each other's writing—usually in ways that are sanctioned, if not outlined in advance, by the instructor—the instructor uses the time freed up by peer response to respond to students' questions, concerns, or perceived needs on an individual level.[16]

2b. Digital writing can facilitate an increased awareness of audience in student writers.

Though much has been made of digital technologies' ability to open up the walls of the writing classroom by facilitating communication with myriad audiences in myriad ways, those who support the teaching of digital writing rarely rely only on the somewhat unassailable position[17] that digital communication technologies increase the opportunities for communication. Instead, advocates for the teaching of digital writing tend to focus on the ways in which communication with a wider and more varied audience can complicate

[16] The argument that peer response leads to the production of better student work may further explain how peer response has found such a secure place in composition classrooms: such a claim, if true, could drastically reduce teacher workload. Though there is little if any literature on peer response that advocates for its use solely as a time-saver for teachers, advocates of peer response (e.g., Murray, 1972; Hairston, 1982; Bruffee, 1984) regularly refer to the practice's potential for reducing the amount of time instructors spend responding to student work or conferencing individually with students. And, though she doesn't use the term "peer response," Eileen Wagner (1975) suggests[16] that teachers can greatly reduce their grading load by letting their students "offer praise and suggestions to other student writers" (78).

[17] Obviously, this holds true only for those students fortunate enough to have access to the training and technologies necessary for digital composing and networked communication.

the act of composition. By their very nature, digital texts enable much swifter digital publication and dissemination of both final products and in-progress drafts, and this allows instructors to bring consideration of audiences into their writing assignments in more significant ways by developing digital assignments that require students to compose texts for actual audiences—audiences to whom questions can be asked, with whom drafts can be exchanged, and from whom feedback can (or must) be sought, allowing "audiences and writers can be related to each other more interactively in time and space" (McKee and DeVoss 9). This communication between author and audience makes it possible for an investigation of an audience's needs and expectations to become a more substantial part of the writing process–instead of relying solely on their ability to put themselves in the shoes of their intended audiences, writers can discuss those expectations with the audience directly.

Though non-digital texts can still be disseminated to outside audiences through non-digital means, students' digital texts can be much more quickly, more widely, and more cheaply disseminated to audiences outside of the classroom or the university (McKee and DeVoss), using tools that many college students have access to by virtue of their university enrollment. For example, at Michigan State University, all students enrolled in Fall 2008 automatically had access to the internet (while on campus—the University scaled back its free dial-up internet access for students and faculty in 2007, when the university decided to stop replacing the modems that made the service possible as they wore out), a university email account, and 100MB of server space that could be used for file storage or web hosting; and many students also had access to online resources and course-companion sites through ANGEL, MSU's course management

system. Students and faculty could also request that ANGEL accounts be established for student organizations or other MSU-related groups. Such accounts provide a location for sharing of files and other resources, as well as facilities for synchronous and asynchronous communication. Though there are, of course, constraints placed by the University on how these spaces can and should be used, each of these allows for widespread dissemination of a variety of digital texts to audiences both within and outside of the university community.

This more seamless transition between composition and dissemination in various digital modes "is dissolving the traditional gap between writing and publishing" (DeVoss and Porter, 2005); as a result, distribution of student texts, either in draft or finished form, to their intended audiences can become a regular part of classroom assignments, and, therefore, consideration of the needs and expectations of those audiences can become a regular part of the composing process for those students.

Third Justification: Opportunities for learning

3a. Peer response provides students with opportunities for learning and growth that are denied them by other, less collaborative activities.

This argument for the affordances of peer response as a classroom activity is based primarily on the tenets of collaborative learning theory, which maintains that thinking and learning only occur as the result of the participation of and interaction with others; from this perspective, schooling's main purpose is to enable and facilitate the growth of the collaborative learning communities in which this interaction can take place—or, to put it another way, "Education initiates us into conversation, and by virtue

of the conversation initiates us into thought" (Bruffee 133). Collaborative learning theory is in turn founded on the social constructionist view that "that knowledge is essentially a socially justified belief" (Carson and Nelson 17-18) and that new ideas are "generated by communities of like-minded peers" (Bruffee, 1986, p. 774).

In *Writing Groups: History, Theory and Implications*, Gere argues that the act of talking with others about writing—about language—is one of the fundamental ways through which a literate community develops, and collaborative learning has long been thought to benefit students in writing classrooms (e.g., Britton, et al.; Bruffee, 1984, 1993; Gere, 1987, 1990; Moffett, 1983; Spear, 1988). Unsurprisingly, peer response, because of its reliance on interaction, conversation, and group negotiation of tasks, is frequently the way in which collaborative learning theory is made manifest in the writing classroom.

While there have been studies that have raised concerns with the implementation of peer response (DiPardo and Freedman, 1988), these studies have primarily focused their criticisms on a lack of clear direction for instructors' regarding how peer response groups should be structured, and on the perception by instructors that without strict oversight, peer response groups too often become distracted from the task at hand and digress into non-academic conversation.[18] Despite these concerns, however, research has demonstrated that students often benefit from working in peer response groups because such groups offer students the opportunity for lower-risk experimentation and critical thinking about meaning and audience (Gere, 1987); because peer response groups "shift the emphasis in the classroom from product to process and from teacherly

[18] Gere (1987) expresses doubt as to whether this is, in fact, a problem, arguing that students are still learning valuable communication and critical thinking skills even if there are technically 'off-task.'

evaluation to writers' goals and readers' response" (Flower 704); and because through peer response, students develop an understanding of how the choices made by the author influence the resulting text, allowing them to read and think more like writers (Spear, 1988). This "significant redefinition of the self," the moment that students begin to think and acts as *writers*, occurs only when students are given the opportunity to address composition and revision tasks through interaction with peers (Spear 14).

3b. Digital writing tasks provide students with opportunities to learn that are denied them by print-based writing assignments.

This argument in support of the teaching of digital composition relies on what are seen as the educational affordances of teaching digital writing—the ways in which this type of writing "pushes on systems and established ways of working with a pressure that other ways of writing don't exert" (DeVoss, Cushman and Grabill, 17). Johnson-Eilola (1993) has argued that digital composing should be interpreted as more than a new way to produce or publish print-based texts—that such composing and its presence in writing classes opens up possibilities for new ways of thinking, teaching and learning.

For example, digital composing allows students to examine the possibilities available to them in terms of expression, thereby enabling composition instructors to examine with their students the ways in which different media are more or less effective at communicating certain messages or achieving certain aims in different contexts; such assignments can help keep students from becoming limited by what Sean D. Williams describes as a "pro-verbal" perspective that "value[s] only verbal representations when the most effective rhetorical strategy might be to use a visual" (27).

Digital writing assignments also provide opportunities for students to engage in other intellectual exercises not required of them by what Yancey calls the "present [non-digital, primarily print-based] model." These exercises, according to Yancey, could include the opportunity to:

- "consider the issue of intertextual circulation: how what they are composing relates or compares to 'real world' genres;
- consider what the best medium and the best delivery for such a communication might be and then create and share those different communication pieces in those different media, to different audiences;
- think explicitly about what they might "transfer" from one medium to the next: what moves forward, what gets left out, what gets added- and what they have learned about composing in this transfer process;
- consider how to transfer what they have learned in one site and how that could or could not transfer to another, be that site on campus or off;
- think about how these practices help prepare them to become members of a writing public" (2004, p311)

Though some of the exercises Yancey lists could arguably be accomplished with non-digital writing assignments, the relative unfamiliarity of digital composition as an academic subject is itself a benefit, making possible—or perhaps even requiring—consideration of many of the aspects of writing that are so often invisible (e.g., the familiar essay requirement of 8.5 x 11-inch white paper, with one-inch margins and a particular font size and typeface), and that are usually presented to students "as though these material decisions are not and have never been decisions but are natural" (Wysocki, 2004, p22). This invisibility—or, rather, this overwhelming familiarity with the ways in which written texts are traditionally shaped—has led to the perception by some that form and content are separate entities that must be forced together instead of two aspects of the same set of rhetorical composing decisions, regardless of the media with/in which one is composing (Wysocki 2001). Because digital composition frequently forces writers to consider form and design in ways they never have, teaching digital composition

alongside alphabetic print composition can facilitate conversations about the material and contextual nature of *all* writing, and can draw attention to the ways in which that nature can be and frequently is hidden.

Digital writing assignments can also "make visible the strategies we already use, or ones that we could or should use when *reading* any text" (Parrish 2002, cited in Ball, 2004; emphasis added). Students are forced to consider the impact of the materials (the sounds, images, text, color, shape, organization, etc) of digital texts in ways that they rarely feel the need to engage in with print-on-paper texts, and this consideration facilitates classroom conversations about the rhetoric of design and presentation that are relevant to all texts, not only digital ones.

Conclusion

As is evident from the literature, proponents of peer response and of digital composition are committed to the continued presence of each in the writing classroom because digital writing and peer response help instructors accomplish similar goals: through peer response, as through composing in digital media, students are able to develop a more robust understanding of audience; are provided with experiences that better prepare them for writing tasks they will encounter outside of school; and are provided with opportunities for learning and growth that would otherwise be denied them. Laudable goals, all, and goals that resonate with the overall goals of the writing classroom as summarized by the Conference on College Composition and Communication in 1989: to contribute to a functioning democratic society by developing "citizens who can read critically and write clearly and cogently." Though definitions of

what it means to "read and write" may have changed thanks to technological innovation since the late 1980's, the goal of a writing classroom that helps students process and communicate messages effectively has remained, and instructors are not likely to give up any tools that could help them achieve that goal.

Chapter Summary

The parallel themes of justification discussed in this chapter represent the context of two popular features of the writing classroom: peer response and digital composition, and the goals they cite—increased attention to the needs and real-world experiences of students, fewer demands on overworked writing instructors, better preparation of students for future writing tasks and for active participation as citizens, better preparation of students as academic writers—are difficult to argue against. The point at which these two entities—peer response and digital writing—intersect is the point at which my dissertation research began, and in the chapter that follows, I explain in greater detail the context in which this research was conducted, including a thick description of the research site; I also describe and define the key concepts that provide a framework for this research and the methods through which the data was generated and analyzed.

CHAPTER 3: METHODOLOGY

In this chapter, I provide a description of the context of the research into peer response of digital texts that I conducted during Spring Semester 2008 in a first-year writing classroom at Michigan State University, including a thick description of the university, program, course, and classroom in which my data was collected; additionally, I describe the ways in which the theories of multiliteracies proposed by Stuart Selber and theories of connectivism proposed by George Siemens (2005) and Stephen Downes (2007) contribute to the conceptual framework that greatly influenced my approach to this research and the data it generated. I conclude with a discussion of the planning and implementation of data collection and the grounded theory methods I employed during my analysis of the data.

Context of the research

The research site: Michigan State University

Founded in 1855, Michigan State University—originally the Agricultural College of the State of Michigan—was the pioneer land-grant institution in the country, and the model for the land-grant colleges that arose from the 1968 Morrill Act, which provided federal land to states "to promote the liberal and practical education of the industrial classes on the several pursuits and professions in life" (USDA, 7 U.S.C. 304) This mandate led to the development of university extension and outreach programs, and these programs continue to be a part of Michigan State University's core mission statement,

which reinforces a commitment to broad access and diversity in education in its goal of "advanc[ing] knowledge and transform[ing] lives (http://president.msu.edu/mission.php).

The first-year writing program: Writing, Rhetoric, and American Cultures

The first-year—or "Tier I"—writing requirement at Michigan State University consists of one four-credit 100-level course in Writing, Rhetoric and American Cultures (WRAC). WRAC courses are intended "to prepare students for the kinds of writing they will be called upon to produce academically, professionally, personally and publicly,[19]" and the Tier I Writing Mission Statement lists the specific goals of the course as follows:

Writing:

- Use writing for purposes of reflection, action, and participation in academic inquiry
- Work within a repertoire of genres and modes to meet appropriate rhetorical purposes
- Exercise a flexible repertoire of invention, arrangement, and revision strategies
- Demonstrate an understanding of writing as an epistemic and recursive process and effectively apply a variety of knowledge-making strategies in writing
- Understand diction, usage, voice, and style, including standard edited English, as conventional and rhetorical features of writing

Reading:

- Engage in reading for the purposes of reflection, critical analysis, decision-making, and inquiry
- Understand that various academic disciplines and fields employ varied genre, voice, syntactical choices, use of evidence, and citation styles.
- Read in ways that improve writing, especially by demonstrating an ability to analyze invention, arrangement, and revision strategies at work in a variety of texts
- Demonstrate an understanding of reading as epistemic and recursive meaning making processes
- Understand that academic disciplines and fields employ varied genre, styles, syntactical patterns, uses of evidence, and documentation practices that call for a variety of reading strategies

Researching:

- Apply methods of inquiry and conventions to generate new understanding

[19] Taken from the WRAC "Tier I Writing" information page (https://www.msu.edu/unit/wrac/t1/t1_index.html)

- Demonstrate the ability to locate, critically evaluate, and employ a variety of sources for a range of purposes
- Demonstrate the ability to generate and apply research strategies that are purposeful, ethical, and balanced
- Demonstrate an understanding of research as epistemic and recursive processes that arise from and respond back to various communities
- Understand the logics and uses of citation systems and documentation styles and display competence with one citation system/documentation style

Between 100 and 125 sections of the Tier I WRAC courses are offered each semester in the Fall and Spring, taught by a mixture of teaching assistants and fixed-term and tenure-stream faculty, with a total enrollment of approximately 6000 students each year. Tier I Writing courses are offered under different thematic headings (e.g., Science and Technology; The American Ethnic and Racial Experience; American Radical Thought). Regardless of the theme, WRAC courses are—as mentioned above—reading-, writing-, and research-intensive and serve as the prerequisite for other required courses, including the required Integrated Arts and Humanities (IAH) courses, two of which (one "A" course and one "B" course) students must successfully complete in order to meet their Arts and Humanities general education requirements. Because of this system of prerequisites, the majority of students in a given WRAC course are freshmen, usually in their first or second semester at the university. However, not all students take Tier I WRAC courses their freshman year; some students are able to bypass the Tier I WRAC course requirement altogether due to high AP test scores, and some students must first take WRA 1004/0102: Preparation for College Writing because of low scores on the Test of English as a Foreign Language (TOEFL) scores and/or insufficient preparation for college writing.

Tier I WRAC classes meet in spaces across campus that can vary greatly in terms of their size, configuration, and access to technology. Some WRAC courses meet each

day in computer labs with fixed, lab-style tables arranged in rows or in pods, some meet in tech-enabled classrooms that feature a computer cart with tables or rows of chair/desk combos, some meet in cramped basement classrooms in which the sole classroom technology is an overhead projector. If space is available, instructors who find themselves assigned to teach in a less-than-ideal classroom space can sometimes arrange for their class to be moved to another location, but given that students sometimes schedule their courses based at least in part on the listed course locations, instructors are frequently encouraged to make do with the rooms to which they are originally assigned. However, instructors can request that at least one of their weekly course meetings be scheduled for one of the designated WRAC computer labs, and these requests are accommodated whenever possible. The average maximum class size for Tier I WRAC courses varies somewhat from semester to semester, ranging from 24 to 27 students. During Spring Semester 2008, all Tier 1 WRAC courses were capped at either 24 or 25 students—though exceptions were made for a few sections that increased class sizes to 26 or 27.

WRA 150: "Writing: The Evolution of American Thought"

The course in which I generated my data was one of 35 sections of WRA 150 offered during Spring semester of 2008, and one of a total of 120 sections of the Tier I writing course offered that semester. As described in the Registrar's online "Course Description" database, students in WRA 150 focus on "drafting, revising, and editing compositions derived from American historical, social, and cultural texts to develop skills in narration, persuasion, analysis, and documentation." This particular section of WRA

150 was designated a "Technology-Intensive" section, which was indicated by a note on the Course Schedule page: "Technology intensive section. Students are required to have and bring a working laptop to class with them each day. Laptops must be equipped with Microsoft Office version 2000 or higher (which includes Word and PowerPoing [sic]); a wireless card; and a power cord." This section was fully enrolled, at 24 students; the majority of the other offered sections of first-year writing had reached their enrollment limits as well.

Classroom environment

The classroom in which I collected my data was one of the four WRAC "wireless" classrooms, designed to facilitate students' use of laptops; tables were of a size to accommodate the books, laptops, and other class materials of four students, while still light enough to allow easy reconfiguration of the classroom; chairs were on casters, serving again to facilitate on-the-fly reconfigurations and student movement. (As previously mentioned, this was one of the ten WRAC courses offered that semester in which students were required to bring a wireless-enabled laptop to class every day; students were encouraged to use their laptops for note taking in addition to other classroom activities.) These four laptop classrooms are, however, the smallest in the building, with an official capacity of only 24 students, according to the MSU Office of the Registrar's Classroom Events Calendar. (In comparison, the average student capacity for classrooms in that building was 58 students, with only five of the building's 22 classrooms having capacities at lower than 40 students.)

Because of the classroom's small size and the course's full enrollment, space was definitely at a premium when all the enrolled students showed up for class; every chair was taken, and there was little room for students or teacher to maneuver between the tables, making in-class reconfiguration of the space difficult. Students who wanted privacy during peer response sessions usually went out into the hallway outside the classroom, sitting either on the floor or on (not at) one of two large metal desks that are kept in that hallway outside the classroom.

Though the tables and chairs were, as previously mentioned, designed to be easily reconfigured, the classroom remained similarly configured during each of my visits to the classroom, with the exception of my first visit at the start of the second week of classes, during which time I explained my study and underwent the consent process. At that time, the tables in the room were configured in long rows of three or four tables each that stretched from wall to wall, facing the chalkboard and the solitary table on which sat a wooden lectern for the instructor. I next visited the class the following week, in order to administer the pre-peer response survey, and at that point the tables were in the configuration that remained consistent for all of my subsequent visits. (See Figure 1 below.)

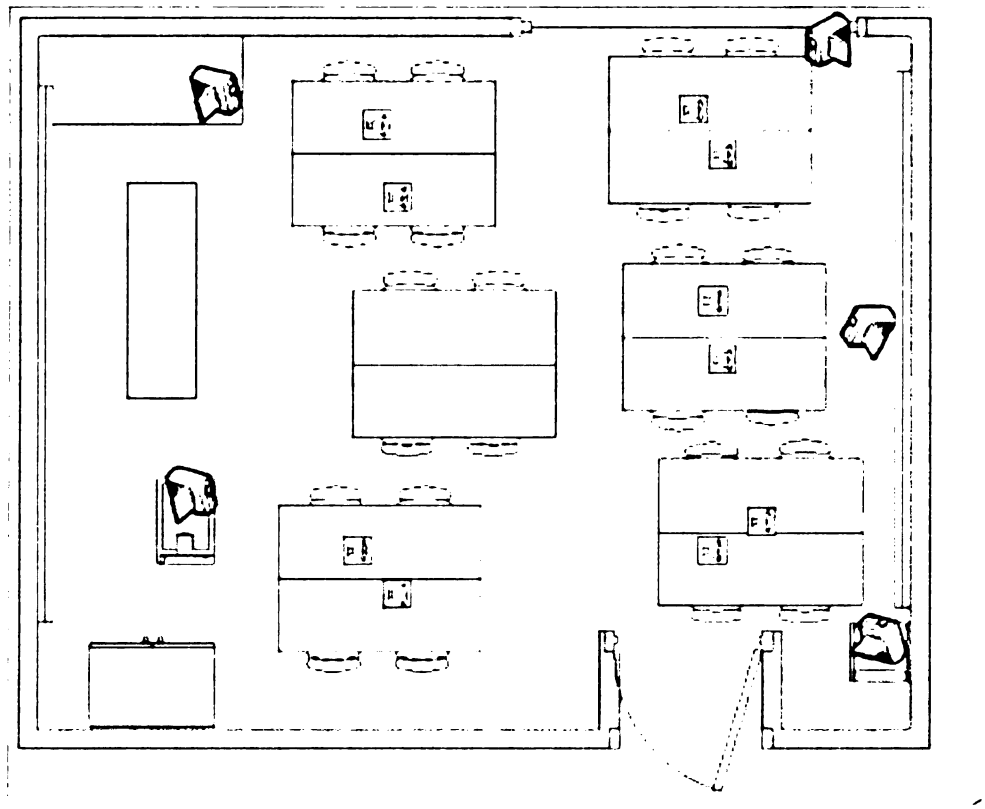


Figure 1 Layout of classroom in which data was generated, indicating placement of classroom furniture as well as video- and audio-recording devices.)

The instructor

The instructor for this section, Liz[20], was a graduate student within the Rhetoric and Writing program, and a former writing consultant at the MSU Writing Center. I had known Liz for many years, having both worked with her at the Writing Center and been enrolled in the same graduate program for two years. The Spring 2008 semester was Liz's sixth semester teaching first year writing, though her first semester teaching WRA 150; in past semesters she had taught WRA 140: Women in America and WRA 0102: Preparation for College Writing, a pre-Tier I course designed for students whose placement tests indicated that they weren't likely to be successful were they to enroll in

[20] All names are pseudonyms unless otherwise stated.

the required Tier I course. Given her previous semesters of experience in teaching for the WRAC program, Liz had a measure of autonomy in designing her own course requirements and assignments, within certain limits (i.e., three or four major writing assignments, depending on length; a reasonable amount of reading from a program-approved text or texts; and—since hers was a technology-intensive section, course assignments and activities that took advantage of the laptop requirement and used the technology in pedagogically appropriate ways, given the goals of the course).

Peer response in this classroom

Perhaps because Liz had been a writing center consultant herself for several years, peer response groups in her classroom were structured along the same lines as the model of peer response demonstrated in the Writing Center's peer response presentation. Like many other Tier I WRAC instructors, Liz had scheduled a Writing Center Peer Response Workshop for her class at the start of the semester; in this workshop, three writing consultants visited the classroom to discuss and demonstrate the Writing Center's proposed peer response model. Though Writing Center consultants have some freedom to tailor how they present the peer response model to their audience, the model itself is laid out in handouts and workshop preparation materials, and so rarely varies from workshop to workshop. This particular workshop, which I observed as part of my data collection, was no exception. The model of peer response as it was presented to Liz's class consists of four steps, as follows:

1. The author of the text under discussion selects two or three "areas of concern" for the group to focus on—for example, "organization," "transitions," or "is my thesis statement clear enough?"
2. The author reads the text aloud to the group, and the group listens and makes notes for the upcoming discussion of the text, paying particular attention to the areas of concern identified by the author.
3. The group members discuss their comments and concerns about the text, while the author remains silent and listens, taking notes.
4. The author joins in the discussion, asking any questions that might remain about the group's responses, and responding to the comments and concerns of the group.

A handout containing this peer response framework, as well as other tips and suggestions for peer response, was distributed during the Writing Center presentation, and though I didn't hear Liz mention this handout again, I did see several students using their copies of the handout during the rounds of peer response that I observed. (See Appendix C.)

During one of the rounds of peer response that I observed, students were also given a rubric worksheet with which to evaluate their peers' work (see Appendix D); students were to complete this worksheet during or after the peer response discussion and then return the completed rubric to the author[21]. During the second observed round of peer response, no such rubric worksheet was used, though the class—prompted by Liz—

[21] Students were required to submit these worksheets with the drafts of their papers, for credit.

jointly brainstormed several characteristics of an effective response to the assignment that they could then use as a point of comparison in their responses.

Methodology: Grounded Theory

Because no theory of peer response or new media pedagogy had been developed that would apply to the problem I sought to examine with my research questions (below), I decided to employ a grounded theory approach in order to derive a theory from the situation itself.

Research Questions

1. Do participants in a peer response session use different modes of response while offering feedback in print-based text peer response (PPR) and digital text peer response (DPR) sessions?
2. How, if at all, do the modes of response employed relate to whether the text under discussion is digital or print-text?

Grounded theory is an interpretive approach, one in which "the search is not for abstract universals arrived as by statistical generalizations from a sample to a population, but for concrete universals, arrived at by studying a specific case in great detail and then comparing it with other cases studied in equally great detail" (Erickson, 1986, p. 130). The methods used in grounded theory analysis "provide interpretive researchers with a disciplined process, not simply for generating concepts, but more importantly for coming to see possible and plausible relationships among them. It is the researcher's portrayal of

these conceptual relationships that constitute a grounded theory" (Piantanida, Tananis, and Grubs, 2002).

Though, as Erickson (1986) points out, "the primary concern of interpretive research is particularizability, rather than generalizability," it remains true that "some aspects of what occurs in any human teaching situation will generalize to all other situations of teaching" (130), and therefore this interpretive approach seemed particularly suited to my research which I hoped, though it would be situated in one classroom, would have relevance to many others.

In this approach, it is important to avoid pre-existing conclusions and expectations about the theory that might emerge to explain the phenomena observed—instead of seeking to prove a pre-existing series of hypotheses, the grounded theory researcher attempts to avoid making assumptions about what her research will uncover in order to remain open to findings she did not—or could not—anticipate.

Conceptual Framework

The conceptual framework that informs my observations and analyses is based on the intersection of two theories, both of which have greatly influenced the way I approach and understand the teaching of composition: 1) the framework of multiple and complementary literacies proposed by Stuart Selber in *Multiliteracies for a Digital Age*, and 2) connectivist learning theory, which posits that learning takes place within communicative networks comprised by individual learners and often facilitated by technology.

Selber's Theory of Multiliteracies

Selber's theory of literacies helped to redefine what I believe it means to be literate in this historical moment, and his work has greatly informed my approaches to assigning and assessing digital texts in my own writing classes, as well as my observations and analyses of the ways in which students in Liz's classroom responded to and interacted with the digital texts they composed. Though Selber's goal in *Multiliteracies for a Digital Age* is the presentation of strategies to establish English departments as the site where students develop computer literacy, I've found his theory of literacies to be incredibly useful to me when applied to an understanding of the development of writers capable of composing effective texts in both print and new media.

In *Multiliteracies for a Digital Age*, Selber is concerned with the failure of English departments to involve themselves with computer literacy, and argues that by doing so, English departments cede their position as sites of literacy development. While he does focus on computer skills rather that digital or multimedia composing, his argument centers around a ceding of rightful territory on the part of English departments, a failure to address the ways in which that territory is expanded by new technologies, and his concerns apply just as well to the failure of writing programs to embrace new media writing as part of its core subject.

The three-part literacy framework that Selber proposes has resonated with theorists and practitioners in a number of fields; a brief survey of online syllabi returns over one hundred undergraduate- and graduate-level courses in composition, technical and professional writing, TESOL, English, and communication that have used or are using Selber's *Multiliteracies* as a required text, and Google Scholar lists a similar

number of journal articles, dissertations, and other texts that cite *Multiliteracies for a Digital Age* as a primary source—among them, Grabill and Hicks (2005), who suggest that Selber's framework could be a useful heuristic for pre-service English teachers in their methods courses, one that would help to shape their own approaches to and uses of technology as well as provide strategies that could be used with their students, and Pennell (2008), who takes a different approach, using Selber's multiliteracies framework to justify and advocate for large-scale collaborative digital writing assignments using wikis and other Web 2.0 technologies.

Selber identifies a three-part literacy framework that addresses the characteristics of "ideal" computer literacy: functional, critical, and rhetorical (see Figure 2). By viewing digital composition—and even composition in general—through the lens provided by these three frameworks, I was able to refine my understanding of the goals of digital composing in the writing classroom.[22]

Category	**Metaphor**	**Subject Position**	**Objective**
Functional Literacy	Computers as tools	Students as users of technology	Effective employment
Critical Literacy	Computers as cultural artifacts	Students as questioners of technology	Informed critique
Rhetorical Literacy	Computers as hypertextual media	Students as producers of technology	Reflective praxis

Figure 2 In order to introduce and explain his literacy frameworks, Selber offers this breakdown of the categories, their overarching metaphors, their overall objectives, and the ways in which they position students (*Multiliteracies*, p. 25)

[22] If my admittedly-informal start-of-the-semester surveys are any indication, none of my first year writing students ever started their semester with me without experience in digital composing—they just didn't think of what they did with their Blogger and Facebook accounts, their forum postings and online gaming, even their webpages or PowerPoint presentations as "digital composing." I see "digital composing *in the writing classroom*" as a whole other animal entirely.

Functional Literacy

The first of Selber's literacy frameworks, functional literacy, is intended to help students develop the knowledge, skills, and abilities necessary to use the technologies currently available to them, as well as any that might be introduced in the future. Selber identifies five aspects through which functional literacy can be measured: 1) use of technology to achieve educational goals, 2) an understanding of the social conventions that drive use of the technology, 3) facility with using the specialized discourses associated with the technology, 4) effective management of online environments, and 5) the possession of strategies for addressing difficulties and challenges that might arise during the use of technologies (45). According to Selber, a student is functionally literate when he or she "is alert to the limitations of technology and the circumstances in which human awareness is required" (47).

This framework can be neatly and easily adapted to digital composing: the functionally literate digital writer understands how and when to operate different digital composing tools, comprehends the metaphors that govern the language used to describe these tools, and is aware of both the problems that can arise while composing digitally as well as the strategies that can be employed to address them.

Critical Literacy

The second component to Selber's theory is critical literacy, in which he encourages students and teachers alike to question the ways in which the technology is used to move, influence, use, or define individuals and groups, to interrogate how the

ways in which individuals use and are used by technology determines how they think and act, and how much power they wield. To be critically literate is "to seek oppositional discourses that defamiliarize commonsensical impressions of technology" (88).

Again, with very little adaptation, this framework is applicable to digital composing: the critically literate digital writer is able to question the digital texts with which they come into contact; such a writer is aware of the ways in which such texts and the choices they represent are made invisible, and can interrogate these texts and their assumptions effectively.

Rhetorical Literacy

In this third part of his multiliteracies argument, Selber advocates for praxis--for the "the thoughtful integration of [the] functional and critical" literacies as students critique technologies and perhaps go on to develop their own interfaces (145). He identifies four parameters that constitute rhetorical literacy: persuasion, deliberation, reflection, and social action, and provides suggestions for students and teachers regarding how to engage in the rhetorical acts he describes. Perhaps because he is explicitly addressing textual production using technology, this is the aspect of Selber's framework that requires the least amount of adaptation to apply to digital composing. The rhetorical literacy represents, for Selber, the effective shift between functional and critical literacies, in order to produce, interrogate, and revise texts using the technologies he describes, and as such, is applicable to any digitally-composed text, not only the web pages and other hypertextual documents Selber focuses on.

By adapting Selber's multiliteracies framework to better fit digital writing in the composition classroom, I provided myself with a series of lenses through which I would be able to observe—and ideally, better understand and describe—the composing circumstances of the digital writers who would be my research participants. Figure 3 below represents my adaptation of Selber's multiliteracies framework.

Category	Metaphor	Subject Position	Objective	Application
Functional Literacy	Digital composing media as tools	Students as users of digital composing media	Effective employment	Students understand the operation of different digital composing tools, comprehend the metaphors that govern the language used to describe these tools, and possess strategies to address any problems that might arise.
Critical Literacy	Digital texts and digital composing media as cultural artifacts	Students as questioners of digital texts and digital composing media	Informed critique (of the digital texts they encounter and interact with daily)	Students can interrogate digital texts and their assumptions effectively, to uncover how such texts affect and influence students in their daily lives.
Rhetorical Literacy	Digital texts as interactive media	Students as producers of technology	Reflective praxis (in their composition and use of digital texts and digital composing tools)	Students can simultaneously produce, interrogate, and revise digital texts effectively.

Figure 3 My revision of Selber's framework explanation, representing the application of Selber's frameworks to digital composing

Connectivism: A theory of networked learning

In 2005, George Siemens proposed what he called a "connective theory of learning," in response to what he saw as a fundamental flaw in the existing learning theories of behaviorism, cognitivism, and social constructivism, namely that the central tenet of these learning theories held that learning occurs within individuals. Siemens argued that such an understanding of the site and mechanics of learning ignored the reality that learning, thanks in no small part to communication and dissemination technologies, resides not inside individuals but within networks, and that learning can even exist outside of people, in sites where individuals collectively store and share information they've gathered (e.g., social bookmarkings sites, wikis). In this understanding of learning, individuals are members of learning communities, which themselves constitute nodes in a larger network of learning; information is discovered, shared, debated, and revised via these network connections, and, therefore, in order to understand how learning occurs, Siemens (2008) states, one needs to "understand[..] how and why connections form." He identifies the following principles of connectivism—though he emphasizes that they should not be interpreted as prescriptive:

- Learning and knowledge rests in diversity of opinions.
- Learning is a process of connecting specialized nodes or information sources.
- Learning may reside in non-human appliances.
- Capacity to know more is more critical than what is currently known
- Nurturing and maintaining connections is needed to facilitate continual learning.
- Ability to see connections between fields, ideas, and concepts is a core skill.
- Currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities.

- Decision-making is itself a learning process. Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality. While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision.

This understanding of learning as the product of networks frees up students (and teachers) from any perceived responsibility to serve as knowledge repositories; instead, it privileges the abilities to find, evaluate, process, and communicate information in a never-ending recursive process. Conceiving of learning in this way has been particularly helpful for me, as it reinforced my own long-held belief, drawn from my own experience as a student, that knowing the *answers* wasn't nearing as important as knowing *how or where to find them*[23]. Connectivist learning theory also mapped well onto the ways in which I saw students working in my own classrooms and in writing center sessions, and encouraged me to develop assignments and activities that would help writers develop valuable network connections and strategies for evaluating the usefulness of their existing and future connections. Connectivist learning theory also informed my practice and use of peer response in my composition classes, leading me to emphasize the development of learning communities within and among peer response groups as a fundamental part of the peer response process.

Multiliteracies, connectivism and peer response

Making connections

Connectivist learning is dependent on both context and communication, and as such, it maps well onto Selber's theory of multiliteracies; students in the process of

[23] I suspect that this particular perception can be traced back to the moment I realized that performing well on tests had more to do with an understanding of "tests" as a genre than it did with content knowledge.

acquiring functional, critical, and rhetorical literacies are increasingly likely to do so through engagement with a growing online network of fellow-learners, via, for example, Wikipedia, YouTube, Delicious.com, or Facebook. I began to understand multiliteracy as a goal of the composition classroom, and connectivist learning as the means through which that goal could be achieved. Multiliteracies as I had adapted them from Selber and connectivist learning provided lenses that greatly informed my understanding of the teaching and learning of composition, including the use of peer response, and so also greatly influenced the development of the tools I would use to gather my data.

Developing tools

I approached the development of my data gathering instruments with a desire to address the questions that arose when I began to consider peer response through the lenses of connectivism and multiliteracies. Through these lenses, peer response groups operate as learning communities within the larger community of the classroom, communities whose individual members have the potential to influence and facilitate each other's literacy acquisition in profound ways. Group members can share content knowledge, model behavior, and provide the benefit of other connections and resources they've obtained, thereby strengthening the ability of the community to move towards functional, critical, and/or rhetorical literacy, depending on the tasks with which the groups are engaged.

I would need to develop data collection methods that allowed for the observation of functional, critical, and rhetorical literacy development as they manifested in peer response; that would gather information about the kinds of problems students

encountered, and the kinds of literacies that students drew on in their comments and questions; that would examine the ways in which students took advantage of their peer response members as fellow learner-researchers and their peer response group as a network; would note how students made connections between in-group discussion and other potential nodes within their network, and how these connections influenced their behavior within the groups, if at all; and, finally, would allow me to observe and account for any differences in the above when the texts under discussion were print-based or digital.

Data collection and analysis

Data Collection

The data for this research project were collected through the following methods: pre-peer response survey questionnaires; video- and audio-recordings of peer response sessions; post-session survey questionnaires; drafts and final copies of student work; and assignment handouts and other classroom artifacts.

Pre-peer response survey questionnaires

Before the first in-class peer response session, and before the informational peer response presentation by consultants from the Writing Center, a survey instrument (see Appendix A) was distributed to all participants. This instrument was intended to gauge 1) students'[24] previous experience with peer response in their writing classrooms; 2) students' attitudes towards peer response in general; and 3) students' perceptions of the usefulness of peer response to help them to make substantive, effective revisions to their

[24] This and all references to students in the discussion of this study include only those students who consented to participate in this research.

texts. This and all other surveys were designed to take fewer than ten minutes of class time to complete, in order to minimize disruption to the planned classroom activities and to avoid survey fatigue (Porter et al.), which might negatively influence response to surveys distributed later in the data collection process.

Video- and audio-recordings of peer response sessions

Five digital video cameras were used to make recordings of five different peer response groups[25] during the two rounds of observed peer response sessions, and digital audio recorders were placed at each of the five tables to capture any audio missed by the cameras. One additional recorder was placed at the front of the room to capture any instructor comments or instructions that were missed by other recording equipment. In order to minimize student shyness or discomfort, I left the room once the equipment was running, and returned only once class had ended, waiting outside the classroom until all groups were finished with their discussion.

In order to protect participants from feeling obligated to allow their sessions to be recorded, the students had been informed during the consent process that they would have the option, if they so chose, to turn off any of the recording equipment at any time during the data collection, and before each observed peer response session, group members were reminded of that option and were given a brief instruction as to how to go about switching off the audio and video recorders. During the data collection, only once did the

[25] One student in the class did not consent to participate in this research, and so her group's video data from both rounds of peer response could not be included in the analyses; the consent procedures approved by MSU's IRB required me to leave the consent forms in a sealed envelope until after the end of the semester, so that knowledge of which students, if any, had or had not consented would not influence the way I interacted with them. I therefore arranged cameras and recording equipment as though all students had consented.

recording equipment stop recording before the end of the peer response session, approximately 25 minutes before class was to end; this corresponds with the point in the peer response session at which the final group member would have begun sharing his or her work, leading me to believe that one group member decided on that day that he/she didn't want his/her portion of the session recorded.

Each camera was placed on a tripod, between two and three feet away from the nearest member of the group being recorded. Four cameras were affixed to tabletop tripods, two of which were then placed on window-sills, one on top of the overhead-projector cart, and one on a non-rolling chair borrowed from the hallway. The fifth camera was affixed to a standard-sized tripod and was placed against one wall, where there were no other stables surfaces on which to balance a camera. Tabletop tripods were used whenever possible, in order to minimize classroom disruption; as previously mentioned, this was a relatively small classroom at maximum capacity, and the tabletop tripods, while they limited the placement and angling of the video cameras, took up much less classroom space than did the standard tripod. Though the cameras had directional microphones for audio-pickup, digital audio recorders were also placed in the center of each table in order to better capture the group conversations.

Post-session survey questionnaires

After each of the two recorded rounds of peer response, participants were asked to respond to a brief "post-peer-response" survey instrument; the intent behind this questionnaire was to gauge the students' perceptions of and responses to the events that occurred in the sessions themselves. Participants were asked to describe the project they

had shared with the group along with any concerns they had with their project before the peer response session; additionally, they were asked to describe the feedback they had received from their groups and any revisions that they intended to make as a result. (See Appendix B for the full text of the questionnaire.)

Drafts and final copies of student work

While my goal was not to analyze specifically the revisions that my participants made to their texts, I anticipated perhaps wanting to trace the effectiveness of a particular comment or series of comments observed in a session, and so I collected electronic versions of the draft and final copies of student work as they existed at the point at which they were collected by the instructor. (Students were required to submit copies of their works-in-progress on the same day that the peer response groups met to discuss their drafts, so the draft copies of the student work I collected were identical to those shared in the peer response groups.)

Assignment handouts and other classroom artifacts

In addition to student work, I collected copies of classroom handouts pertaining to the peer response process, and to the writing assignments being discussed in the sessions I observed. These documents consisted of assignment descriptions, Writing Center presentation handouts, co-constructed or instructor-generated assignment rubrics, and research citation handouts. Many of these texts are included in the Appendices.

Data Analysis—Grounded theory

In order to analyze my collected data, I turned to the methods of data coding and analysis prescribed by Strauss and Corbin (1990), who dictate that the grounded theory researcher must engage in constant comparison, first comparing the data with itself in order to uncover similarities and differences that mark the boundaries of distinct categories, and then, in later rounds of coding, comparing categories to each other to determine their relationships, if any. These categories serve as the "cornerstones" of the theory as it is developed (Corbin and Strauss, 1990, p. 7), and the researcher continues to build on the categories as they developed throughout each round of coding and analysis.

Though steps to the coding and analytic processes of grounded theory are provided in the work of Strauss and Corbin (1990) and Glaser and Strauss (1967), the generation and development of concepts, categories and propositions is an unbounded and iterative process. Grounded theory is not generated a priori and then tested. Instead, it is

> inductively derived from the study of the phenomenon it represents. That is, discovered, developed, and provisionally verified through systematic data collection and analysis of data pertaining to that phenomenon. Therefore, data collection, analysis, and theory should stand in reciprocal relationship with each other. One does not begin with a theory, then prove it. Rather, one begins with an area of study and what is relevant to that area is allowed to emerge. (Strauss and Corbin, 1990, p. 23)

Coding of data in grounded theory methodology involves continually revisiting data again and again in order to form, reform, and revise categories and identify the key concepts and concept-relationships from which the theory will eventually be constructed. The theory arises, not from the data itself, but from the relationships and categories that are uncovering during the coding process:

> Theories can't be built with actual incidents or activities as observed or reported; that is, from "raw data." The incidents, events, happenings are taken as, or analysed as, potential indicators of phenomena, which are thereby given conceptual labels. . . . Only by comparing incidents and naming like phenomena with the same term can the theorist accumulate the basic units for theory. (Corbin and Strauss, 1990, p. 7)

Corbin and Strauss provide a three-part framework for the coding of data in a grounded theory study: open coding, axial coding, and selective coding. Though the grounded theory coding process is intentionally recursive, these three stages of coding are progressed through more or less linearly starting with open coding. The researcher continues in the open coding stage until no new codes emerge, then moves on to axial coding; when axial coding no longer elicits new categories, the researcher moves to the final stage, selective coding. In the pages that follow, I discuss in greater detail these coding stages and how I applied them to the data I had generated.

Open coding

For my first pass at coding the video/audio and questionnaire data, I engaged in open coding as described by Corbin and Strauss (2007). In order to facilitate coding of all the collected data, I made transcripts of the video and audio recordings, which were then entered into a Word document along with my descriptions of phenomena I observed in the video and any other notes I had made during the transcription process. Data from the three rounds of questionnaires (pre-peer response, and two post-peer response questionnaires) was entered into an Excel spreadsheet. Managing data in MS Word and MS Excel allowed me to move notes, codes, and snippets of data back and forth between files and programs, and I found it useful, as codes began to emerge, to use Excel

spreadsheets to keep track of the different categories and descriptions and the corresponding data.

In open coding, researchers attempt to identify and categorize the actions and phenomena[26] they observe in the data, while doing their best to refrain from making any assumptions or pre-judgments about what those categories might signify or where the process might lead. In my case, however, this caused what initially seemed to be a problem. As I mentioned in Chapter 1, I had formed a suspicion during my pilot study that a significant point of comparison between DPR and PPR might be the modes of response employed by students during the different sessions; I had even identified, as a starting point, four categories of modes I felt were likely to occur during peer response: Written (on scrap paper, on instructor-provided response form, via email, on margins of text, in-text, etc); Oral (asking questions, making suggestions, offering corrections, etc.); Kinesthetic (pointing, cutting and pasting, flipping through pages, etc.); and Additional non-verbal (shrugging, facial expressions, nodding, etc.). It would be impossible for me to approach coding as though I had not previously considered these to be relevant codes, and I knew that I could very likely tend towards an awareness of behaviors that would serve to confirm that impression. Therefore, I determined that I would apply and adapt these codes when and if they seemed appropriate during open coding, while also remaining open to other categories that might arise that could also fit the observed events, as well as to events that didn't relate to these modes of response.

As I worked my way through the data, I developed a number of representative codes which could describe the events and actions I observed; the events and actions I

[26] Strauss and Corbin (1990) define a phenomenon as "the central idea, event, happening, incident about which a set of actions are directed at managing, handling, or to which the set of actions is related."

observed in the surveys, student work, classroom artifacts, and video/audio data were assigned one or more of these codes, and I made notes of actions or events that did not seem to fit in any code. Many codes arose through the open coding process that were eventually discarded or combined with other codes, but those codes that I deemed useful enough to carry through to the next stage of coding are listed below in Table 1.

Table 1 Codes derived from open coding

Codes arising from or applied to session transcripts	Codes arising from or applied to surveys	Codes arising from or applied to classroom artifacts
addressing author's concerns/ audience's expectations	author: only wants grammar correction/author wants more than only grammatical fixes	due dates and deadlines
body language/posture/attitude	concerns addressed/concerns not addressed	number of drafts
change in focus of attention	conclusion	requirements of the assignment
concerns/challenges relating to the classroom environment	development/incomplete paper	research sources and citations
cooperative talk/active listening	explicit direction from teacher	scoring rubrics
deferring to group member/instructor	has detailed revision plan/might have vague idea of revision plan /no revision plan	steps of peer response framework
deviate from/adhere to peer response framework	no previous experience with peer response	
direct response	peer response helps you with: alternative perspectives/ citations/appropriate content/ editing/formatting/grammar/ organization/thesis development /confirmation of opinion/figure out where to add/word choice; reaching your audience	
directive/non-directive statements	peer response is: useful/useless/interesting/uninteresting/confusing/too long/too short	

Table 1 (cont'd)

eye contact/facing towards or away from/looking at or away	positive/negative experience with peer response
formatting texts and citations	responders are: biased against topic/uninformed/ unprepared/not willing to help/not invested in task/mostly wrong /impossible to keep on-task/hard to get along with/indifferent
HOCs/LOCS	revision already completed in session
identifying concerns	
incorporating and balancing multiple elements	
off-task and unrelated to task/ off-task but related to task/on-task	
off-topic/tangential comments	
opposing viewpoints/devil's advocate	
organization of text	
positive comments, "I liked...," vague comments, "seems good"	
positive/negative value judgments	
questions vs. statements	
reading silently/reading out loud	
refusing to yield/ignoring cues/ interrupting	
requirements of assignment	
response group size	
scoring rubric	
uncertainty about assignment requirements	
using images and sound	

Axial coding

After I had identified a number of code categories that seemed to fit the phenomena I observed, I engaged in axial coding, so called because "the analyzing revolves around the 'axis' of one category at a time" (Strauss and Corbin 32). Axial coding requires the researcher to focus on each coded category individually, in order to determine its relationship, if any, to the other categories that have arisen during open coding. Through this axial coding, the previously identified codes are grouped and shaped into a system of categories and sub-categories, with the patterns of interaction between them identified.

I began reexamining the different codes I had developed during open coding in order to determine what relationships might exist between or among them. I began with those codes that had arisen from the transcripts, and grouped those codes that seemed to be related, sorting them into categories and sub-categories that best represented those relationships. Whereas in open coding, the codes developed had been unique to the source of the data (i.e., one set of codes each for the transcripts, surveys, and classroom artifacts), during axial coding I developed categories that spanned across different data sources, allowing me to develop a better understanding of the entire picture painting by the data I had generated.

Table 2 below lists the categories of codes developed during axial coding, and includes a brief description of each category, along with examples of the sub-categories and codes that each category includes.

Table 2 Code categories derived from axial coding

ASSIGN: Relating to the assignment (e.g., requirements; scoring rubrics; due dates and deadlines; drafts; research sources and citations; uncertainty about assignment requirements; rubric questions; required number of sources; formatting texts and citations; movie length; using images and sound; addressing the audience's expectations)
ATTENTION (ATT): Relating to an observed change in focus of attention of participants during peer response sessions (e.g., looking at or away from other group members or texts under discussion)
BODY LANGUAGE (BL): Descriptions of the body language observed in group members before, during, and after sessions (e.g., posture, eye contact, facing towards/away from, attitude)
FEEDBACK CHARACTERISTICS (FBC): Descriptive characteristics of the responses offered by peer groups (e.g., Questions; statements; specific; vague; unrelated; off-topic; tangential; direct response; positive/negative value judgments; directive "you should" statements; deferring to instructor; deferring to group member; off-topic; useful; useless; too short; not correct; biased)
LITERACIES (LIT): Demonstrating or otherwise related to functional, critical, and/or rhetorical literacies (e.g., determining how best to reach the audience; adding music and images to iMovie projects; offering feedback to peers; suggesting resources to help with composition or revision; file formats)
OPINION (OP): Participants' expressed opinions of peer response, contains three subcategories: 1) Responder: positive or negative experiences or impressions related to other group members, (e.g., bias, alternative perspectives; doesn't trust responder's suggestions; interpersonal problems; lack of effort; offered poor or incorrect feedback; didn't come prepared; didn't stay on task); 2) Response: positive or negative experiences or impressions related to feedback received, e.g., author wants more than only grammatical fixes; author only wants grammar correction); 3) Session: positive or negative experiences or impressions related to how peer response sessions are structured (e.g., not enough direction from teacher)
FRAMEWORK (FRA): Relating to adherence or non-adherence to the approved peer response framework (e.g., reading silently; reading out loud; only two group members; silent discussion; identifying concerns; addressing concerns; steps of peer response framework)
SPACE: concerns/challenges relating to the classroom environment
TASK: On-task, off-task but related to task, off-task and unrelated to task

Table 2 (cont'd)

TOPICS: Topics discussed during sessions (e.g., formatting; grammar, content, editing, citations appropriate content; confirmation of opinion; incomplete paper; need more research; thesis development; word choice; organization; mechanics; requirements of assignment; opposing viewpoints; incorporating and balancing multiple elements; using iMovie; proofreading strategies; interviewing strategies; weekend activities; lunch plans; Facebook profiles)
TURN-TAKING (TT): Turn-taking and other conversational cues (e.g., refusing to yield; ignoring cues; interrupting; cooperative talk; active listening)
WRITING PROCESS (WP): Demonstrating influence on or acknowledgment/evidence of the writing process (e.g., has detailed revision plan; conclusion development; no revision plan; might have vague idea of revision plan; revision already completed in session)

Selective coding

The final coding step in grounded theory as described by Corbin and Strauss is selective coding, in which the core category is selected, the relationships between it and other categories are more firmly established, further descriptive information is gather to fill in any gaps that might exist in the data, and relationships between categories are validated by reexamining the different categories at all stages of coding against the relationships as they are understood at that point. Corbin and Strauss place a great deal of emphasis on this final step, validation, as it is vital to determine whether the final categories and relationships that have emerged at the end of coding can be used to account for the categories that arose and the phenomena that were observed throughout coding. Only after this validity has been determined can a theory be posited to explain the patterns that have emerged through selective coding.

Through the selective coding process, two core concepts emerged: topic (i.e., what was said in a session; the content) and feedback characteristics (i.e., in what way(s)

comments and other feedback were presented in a session; the delivery). Each of these concepts was represented by a category of the same name that had emerged during the axial coding process. To confirm my suspicions that the distinct but related concepts of topic and feedback characteristics were the core concepts represented by my data, I reexamined the remaining categories and codes in relation to these two concepts, and determined that these two concepts were either made up of, or significantly influential to, all of the other categories and codes that had emerged during open and axial coding. Through reexamining these codes in light of my discovery of these core concepts, I was able to determine and validate the relationships of topic and feedback characteristics to the remaining code categories (see Figure 4 below). Topic and Feedback Characteristics operate as the two core categories, comprising the code categories of Task and Assign, and Attention, Body Language, Turn-Taking, and Framework, respectively. The core categories also significantly influence and are influenced by the categories of Opinion and Writing Process and their sub-categories. The code category of Space, dealing as it does with the influence of the affordances and limitations of the classroom space on the peer response experience, influences the context in which the rest of the categories exist, and so was placed outside the central diagram, but with permeable boundaries to indicate its ability to potentially impact any category. The significance of these core categories, their relationships with their other categories, and their influence on my interpretation of my research results will be discussed in greater detail in Chapter 5.

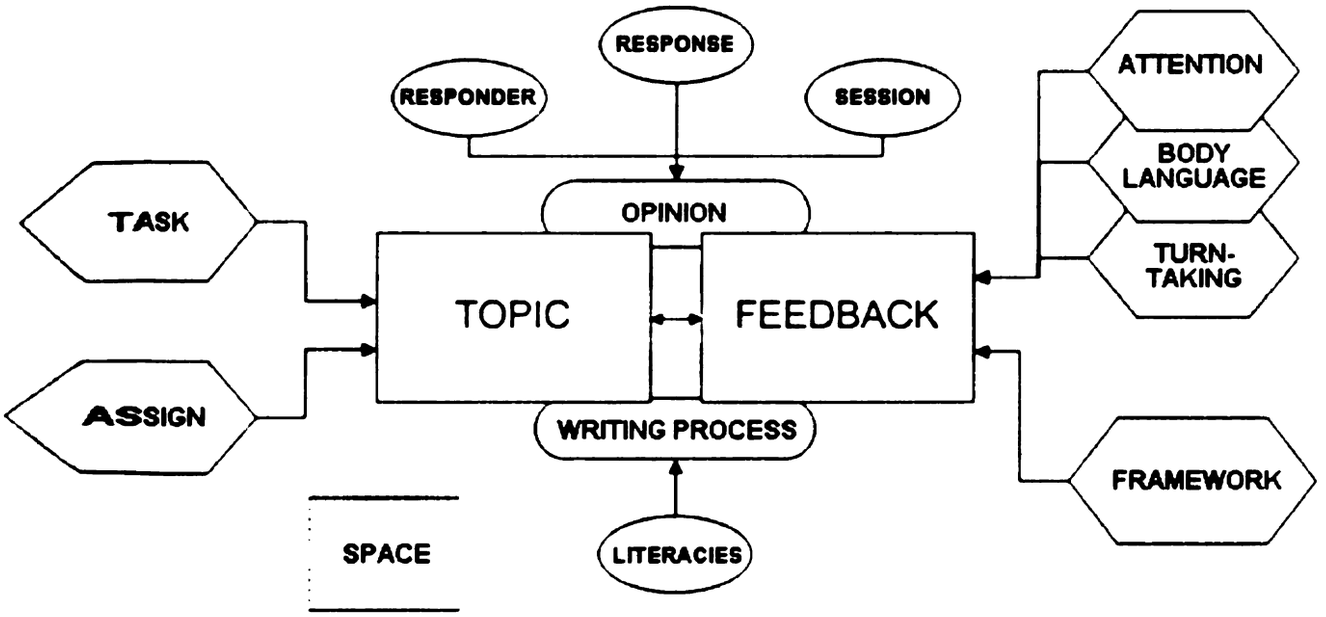


Figure 4 Diagram of relationships between core categories and the other significant categories and sub-categories derived from coding

Chapter Summary

The nature of my research—and my own epistemological perspective—preclude the making of global generalizations about peer response from my experiences studying peer response in this one classroom; instead, my goal was to identify patterns and develop results that could be particularized to other similar situations (Denzin & Lincoln, 2005; Maxwell, 1992; Erickson, 1986). I focused on examining the specific conditions surrounding peer response of print and new media texts at my research site in order to accurately represent the phenomena that resulted in the generated theory (Strauss & Corbin 1990). The chapter that follows describes the results of this research in detail.

CHAPTER 4: RESULTS

Introduction

This research project sought to investigate the differences that might exist between peer response of print-based and digital texts by gathering data about and from two separate rounds of peer response, one digital (DPR) and one print-based (PPR), in a first-year composition classroom at Michigan State University. This chapter presents the data resulting from that investigation, which was guided by the following research questions:

3. Do participants in a peer response session use different modes of response while offering feedback in print-based text peer response (PPR) and digital text peer response (DPR) sessions?
4. How, if at all, do the modes of response employed relate to whether the text under discussion is digital or print-based?

The methods through which these results were generated were discussed in the previous chapter. This chapter is organized into two primary sections: Participant Data, which includes that data gathered from and about the research participants and Session Data, which includes the data generated both *from* (e.g., video- and audio recordings) and *about* (e.g., participant surveys, classroom artifacts) the two rounds of peer response that were the primary focus of this research.

Participant Data

Participant Demographics

There were 24 students enrolled in this section of WRA 150, and of these, 23 consented to participate in this research study.[27] All but one of these students were freshmen in their second semester at Michigan State University; the remaining student was a junior who had recently transferred to MSU from another university and was required to take the introductory writing course to meet MSU's Tier I requirement, despite having completed a first-year writing course at her previous institution. (This requirement and other characteristics of the course, program, and university that contributed to the institutional and pedagogical context of the class were addressed in greater detail in Chapter 3.)

Previous experience with peer response

A brief survey was distributed to participants during the third week of the semester in order to determine students' existing experience with, and attitudes towards, in-class peer response; the purpose of this survey was to allow me to better understand how students' previous experiences with peer response might be influencing their behavior within and impressions of the peer response sessions I would be observing, as well as to enable me to compare students' pre-existing ideas regarding how peer response was or was not useful to them in their writing to their actual experiences in this WRA course.

[27] Unless otherwise stated, all references to "students" or "participants" will refer to the 23 students who consented to participate in this research.

I suspected that many, if not all, of the students would have had some experience with peer response in their high school English classes, and the results of the initial survey justified that suspicion: of the 21 participants who responded to this initial information-gathering survey, 20 reported having previous experience with peer response, and all reported that this experience had been in their high school English classes. (See Appendix A for the complete survey.)

Attitude towards peer response at start of data collection

Degree of helpfulness in revising/making large-scale improvements

Students who had previous experience with peer response were presented with two survey items that asked them to rate aspects of peer response's helpfulness or lack thereof on a five-point Likert scale; the first of the two survey items asked students to characterize the helpfulness of their previous peer response experience in addressing what McAndrew and Reigstad refer to as "Higher Order Concerns," those issues or problems that would likely result in major revision to their text (e.g., developing or changing the thesis argument, organization, or structure of a text). Students were asked to rate peer response as one of the following: "Extremely helpful," "Mostly helpful," "Neither helpful nor unhelpful," "Mostly unhelpful," or "Extremely unhelpful." Of those 20 students who had previous experience with peer response, 75% (15 students) responded that their previous peer response experiences had been "mostly helpful" in assisting them to address higher order concerns, and 25% (5 students) responded that those previous experiences had been "mostly unhelpful" in that area. See Table 3 below.

Table 3 Degree of helpfulness in revising/making large-scale improvements (n=20)

Rating of Helpfulness of Peer Response in Making Large-Scale Improvements to Text	Percentage of Participants Selecting Rating
Extremely helpful	0%
Mostly helpful	75% (15 participants)
Neither helpful nor unhelpful	0%
Mostly unhelpful	25% (5 participants)
Extremely unhelpful	0%

Degree of helpfulness in correcting surface-level errors

Participants were also asked to rate the usefulness of their previous peer response experiences in helping them to identify and/or correct issues with "Lower Order Concerns," such as errors in spelling, punctuation, and grammar[28]. Fourteen students (70%) replied positively to this survey item, with 13 students responding that peer response had been "mostly helpful" to them in this area, and one student responding that it had been "extremely helpful." The remaining 5 students (25%) responded that peer response had been "mostly unhelpful" in assisting them with identifying and/or correcting these errors. (One student who had indicated previous experience with peer response neglected to respond to this survey item.) See Table 4 below.

[28] "Grammar" is used here in the colloquial sense, as I anticipated that "mechanics, usage, and syntax" were likely to be misunderstood, or, at least, weren't likely to be understood in the way I intended.

Table 4 Degree of helpfulness in correcting surface-level errors (n=19)

Rating of Helpfulness of Peer Response in Surface-Level Errors in Text	Percentage of Participants Selecting Rating
Extremely helpful	5% (1 participant)
Mostly helpful	70% (14 participants)
Neither helpful nor unhelpful	0%
Mostly unhelpful	25% (5 participants)
Extremely unhelpful	0%

Degree of helpfulness: In summary

Though for the most part, students gave the same response to each of these two related survey items, there were four students who indicated differences in the perceived helpfulness of peer response to assist with making large-scale improvements and with correcting surface-level errors: Debra[29] responded that peer response was "mostly unhelpful" with revising or making improvements, but "mostly helpful" when she needed surface-level error correction; Susan and John thought the opposite, responding that peer response was "mostly helpful" to them in revising or making improvements, but "mostly unhelpful" with error correction; and Braedon responded that peer response was "mostly helpful" to him in making large-scale improvements to his writing, but "extremely helpful" in identifying and correcting errors.

Usefulness of peer response given specific tasks

Participants were also asked to identify which specific tasks, if any, peer response was most useful to them in addressing; the survey item offered six suggestions of tasks,

[29] All names are pseudonyms.

in addition to which students had the opportunity to write in any other responses that they deemed appropriate. Participants could also select as many responses as they wished. (A response of "None of the above" was also an option, though no participants opted for it.) The six suggested tasks were "Correcting spelling and punctuation errors," "Improving organization," "Developing good transitions between paragraphs," "Coming up with topics for my writing," "Developing a thesis statement," and "Understanding the assignment better." Of these, "Correcting spelling and punctuation errors," "Improving organization," and "Understanding the assignment better" were the most popular, with 70% of the participants (14 students) selecting "Correcting spelling and punctuation errors," and 60% (12 students) selecting "Improving organization" and "Understanding the assignment better." Of the remaining categories, 35% of participants (7 students) responded that peer response was most useful in helping them come up with interesting ideas, 25% (5 students) found peer response most helpful in developing thesis statements and 15% (3 students) thought that peer response was most useful in helping them develop transitions between paragraphs. (See Table 5 below.)

Table 5 Usefulness of peer response given specific tasks (n=20)

Task	Percentage of Participants Selecting Task
Correcting spelling and punctuation errors	70% (14 participants)
Improving organization	60% (12 participants)
Understanding the assignment better	60% (12 participants)
Coming up with topics for my writing	35% (7 participants)
Developing a thesis statement	25% (5 participants)
Developing good transitions between paragraphs	15% (3 participants)
Other	0%
None of the above	0%

Characteristics of participants' most useful peer response experience

Students were also invited to think back to the peer response experience that had been most useful to them in their writing and were asked to describe in their own words the characteristic(s) of that session that most contributed to its usefulness. Participants were free to focus on whatever aspects of the session they wished, and therefore the responses varied greatly: one student replied that peer response was "not really helpful," since "no one [in the peer response group] has any other ideas," whereas three students offered responses that focused on the structure of the sessions themselves, answering that the best sessions were those in which the peer responders had their own copies of the paper on which to write comments; in which papers were submitted to group members via an online dropbox, commented on using a rubric, and returned by email; or which lasted long enough "to really talk about [the] paper."

The remaining 16 respondents chose to emphasize some aspect of the session's content as most significant: seven students mentioned that peer response helped them develop new ideas to approach the assignment, with three of those students adding that peer response also helped them better understand the assignment; two students responded that they received the most help on developing their thesis arguments; two students mentioned that peer response helped to improve their confidence about their papers and their ability as writers; one student shared that she had learned several useful proofreading strategies from a peer response session; and four students responded that peer response was most useful to them in identifying problems in spelling or grammar, with one of these students adding the caveat that "the only thing i [sic] have ever got out of peer response is help on my grammar and spelling." See Table 6 for the positive characteristics identified in the responses to this survey item, organized by category.

Table 6 Characteristics of Most Helpful Peer Response Session (n=20)

Aspects of session structure	Aspects of session content
The reviewer spent time reading my paper and had a copy for them to write on.	My partner told me good method for checking my paper. All I have to do is read my paper aloud to myself to see w[h]ether it interests me or sounds reall[y] really bad. I have used it on every paper since then.
[The session] was long enough to really talk about my paper.	The only thing i have ever got out of peer response is help on my grammar and spelling
Had to anonymously turn in a paper online in a dropbox, got it reviewed following a RUBRIC and then got it sent back. I was able to see how it followed the guidelines of what the professor wanted and what another student thought about it and fixed so that it followed to rubric.	A helpful response was when I the person helped me with my thesis and to understand what we needed to write about
	correct spelling and grammar
	Having another person's point of view, being given suggestions and aspects of a subject that you would not normally come up with yourself.
	Getting another persons opinion about my writing and having a new way of looking at the paper.
	The person reading my paper actually cared about helping. They also offered good ideas and ways to really improve my paper.
	Well my Peer review helped with ideas.
	Talking to my classmates about the assignment
	i worked with someone that i was comfortable with and it helped me because i could talk to them and express myself.
	it helped me come up with new ideas to put into my paper
	It helped me a lot because I am not that good of a writer. I like getting other people's ideas and opinions.
	The group was able to give me better ideas for my paper and clarify what we are supposed to be writing on.
	It helps me get a better understanding of what I want my thesis to be.
	I find peer review most helpful for grammar, spelling, things like that. Most students are shy about their writing and don't want to say anything critical about others papers. At least I don't.
	grammatical errors, rearrangement of sentences

Characteristics of participants' least useful peer response session

There were greater similarities in the responses to the survey item asking students to identify characteristics of their least useful peer response experience: one student responded that he couldn't think of a bad experience he'd had with peer response, another student complained that his least useful session had suffered from a lack of guidance or direction from his teacher, and the remaining respondents identified either problems with either the other members of their response groups or with the feedback those members had offered. (Two students who had previously indicated experience with peer response neglected to respond to this survey item.)

Of those who identified some negative characteristic of their least helpful peer response experience, 12 students (71%) complained about problems with other group members: other members' bias against the topic chosen made it impossible for them to respond fairly and constructively to the text; other members' ignorance of the writer's chosen topic, of the assignment, or of the writing process in general made what comments they offered useless; their lack of investment or interest in the process led other group members to become distracted by off-topic conversation or otherwise fail to take the task of responding seriously. Four students (24%) chose to focus on issues with the feedback they received as the reason for their session's lack of usefulness: either they wanted grammar correction and didn't receive it, or they wanted more than grammar correction and didn't receive it. As previously mentioned, one student (6%) identified a lack of direction from his teacher as the biggest problem in his least useful session. See Table 7 below for the negative characteristics identified in responses to this survey item, organized by category.

Table 7 Characteristics of Least Helpful Peer Response Session (n=18)

Problems with responders	Problems with feedback	Problems with session structure
This experience was unhelpful because the people reading my paper were only looking at grammar, and thinks like it. Also, they did not really care, and filled out the "peer review sheet" like it was an assignment, rather than to improve a paper.	All peer review that I have been associated with has been unhelpful in developing a better paper, thesis statement, or transitional sentences.	Was not very organized in the sense that there were not set goals to accomplish. more just a read through and highlight what was wrong.
On a science paper people had to read them and respond. If someone didn't like the subject then they didn't respond. That was worthless.	A unhelpful response usually consists of fixing grammatical errors	
i don't think that the students really know what the assignment is about and i never really use the advice they give me	not enough feedback given, done just to get it over with and to get credit.	
When your peer does not try very hard to give suggestions, just states that everything looks fine.	Grammar was not corrected as it should have been	
when someone in the group was not prepared of wasted time	Got nothing else to add to paper	
the person didn't have any clue what was going on and did not correct my paper at all and most of the corrections he did give were wrong		
My partner was not very helpful and wasn't helpful.		
working with someone that i couldn't really talk to that well. it didn't help me at all		
The reviewer was not on task.		
The group didn't want to work and nothing on my paper was corrected. To say the least there was no help at all.		
The only thing that is really unhelpful is when people don't respond and give feedback about what you wrote.		

Session Data

Context of PPR and DPR sessions

In order to give students a chance to become familiar with the peer response framework they would be using—and therefore reduce the impact of unfamiliarity with the peer response framework on the data collected—I omitted the first round of in-class peer response from my data collection, recording only the second (PPR) and third (DPR) of the three rounds of peer response in this course. The PPR round took place over one class period during the eleventh week of the semester, and the DPR round took place over two consecutive class periods during the fifteenth week of the semester. (The first round of in-class peer response was also for a print-based text assignment, and took place in the sixth week of the semester.)

Each of the two observed rounds of peer response took place on either one or two class days, during which approximately one hour of class time was given over to peer response group discussion; the remaining 50 minutes of class time for each day was spent either on peer-response-related tasks (e.g., reviewing the peer response process, addressing concerns that arose during peer response sessions, or finding appropriate places in the hallway or neighboring classrooms for groups to meet) or in tasks related to the current assignment (e.g., independent student work time, reminders about due dates, collecting drafts, answering student questions about requirements for course assignments, or scheduling instructor conferences). The expectation for the PPR session, announced at the start of class on that day, was that all of each groups' members were expected to share and receive feedback on their drafts of their research papers (see Appendix D for the assignment description) during the allotted one-hour period; therefore, given the time

constraints, many students chose to work in pairs[30] or in groups of three for the PPR session.

Circumstances were different for the DPR sessions, which took place over two class days. The assignment for which the digital texts were composed required students to use Apple iMovie to create digital videos that ranged in length from 3 to 5 minutes, and offered students the option of working in groups of two or three to develop their videos. (See Appendix F for the handout containing the assignment description and requirements.) All but one of the students took advantage of the opportunity to collaborate with at least one other student on their video projects, and therefore for peer response, a simple exchange of texts between individual students wouldn't have been sufficient or, given the layout of the classroom, even possible. Instead, the groups and one individual author shared their texts with the entire class via the classroom LCD projector, and peer response groups of three or four students discussed their response to the text before presenting their comments to the video's authors and the rest of the class. For the DPR sessions, I video- and audio-recorded both the individual group discussions of the texts and their presentation of their feedback to the entire class, including the texts' authors, who were, according to the peer response framework, then supposed to respond and ask any questions they might have after they had heard the feedback from all of the groups.

[30] Though the peer response framework (see Appendix D) used in this classroom assumes groups of 3 or more, students who chose to work in pairs were asked to adhere as closely to the framework as possible during the "Group discusses, author remains silent" step by giving the responding peer a chance to offer comments for a time without interruption by the author. (Not one of the four observed groups actually followed this instruction.)

The PPR sessions

Narrative Descriptions of PPR Sessions

Of the four peer response groups from whom usable video and audio data was gathered[31] during the PPR round of peer response, not one group adhered entirely to the four-step peer response framework as they had been told to do (See Appendix C), despite having been reminded to do so by their instructor at the start of the class, and despite the framework being clearly displayed on the projection screen at the front of the classroom throughout the allotted peer response time. However, each of the four groups deviated from the framework in different ways and to different degrees. In this section, I present narrative descriptions of each of the four sessions, focusing primarily the structure of each session and how time within the sessions was spent.

PPR Session 1: Erica and Anisa

Before beginning to talk specifically about one or the other of their drafts, Erica and Anisa spent seven minutes discussing concerns they had about citation sources and about document formatting in MS Word. During this conversation, both students decided that they needed the assistance of their instructor in understanding how to cite online sources. Liz, who spent much of her time during these sessions walking around the room, observing the groups, taking attendance, and answering questions when asked, spoke briefly with both students about their concerns, and eventually suggested that they

[31] As mentioned in Chapter 3, the video and audio data from one of the five groups recording during each round of peer response had to be excluded, because one group member did not consent to participate. All future references to video and audio data will refer only to the four groups whose members consented to participate.

ask their question again once the peer response sessions were over so that the whole class could benefit from the discussion.

Eventually, Erica suggested that they get on with responding to each other's papers; after both students admitted that neither wanted to read her paper, Erica finally agreed to go first. However, she only read a few sentences before stopping to ask her partner a question about her thesis, which they discussed briefly before Erica resumed reading, stopping again almost immediately for another question. This pattern of "read a few sentences, stop to discuss" remained consistent for Erica's half of the peer response session, though occasionally Anisa was the one stopping the reading with a comment or question. The conversation about Erica's paper was punctuated by expressive gestures by both students, who used pointing to the text and moving imaginary objects (apparently representing paragraphs) around in the air to demonstrate potential organization strategies for Erica's argument. The discussion moved slowly through the paper, occasionally going back to discuss a previous section, with only a few concluding remarks from both students after Erica finished reading. The total amount of time spent reading and discussing Erica's draft was 33 minutes and 31 seconds, after which Anisa spent some time quietly filling out the grading rubric before putting it aside.

Less time was spent discussing Anisa's draft—only 13 minutes and 30 seconds—and she (was) stopped while reading only a few times: once on her own initiative, in order to ask Erica for suggestions about rephrasing an awkward sentence, and twice by Erica, who interrupted to point out misspelled words. After Anisa finished reading, she and Erica discussed concerns that each had about the text, though Anisa seemed disinterested in receiving feedback, frequently checking her cell phone or laptop (which

remained open during the session) and cracking her knuckles which Erica was talking. Erica finally turned to filling out the grading rubric, discussing several of her responses to the sheet's prompts with Anisa before writing them down.

PPR Session 2: Kyle and Craig

At the start of the peer response session, Craig volunteered to read his draft first, stating that his paper was unfinished (it was only three of the required six to eight pages), and telling Kyle, his peer response partner, that his chosen topic was stem cell research. Craig read through the paper quickly and once he was finished, got no feedback whatsoever from Kyle, who despite offering no comments during the allotted "author remains silent" portion of the peer response session, had appeared to be paying attention at Craig read his draft. Instead of soliciting feedback from Kyle—and, indeed, without even waiting for any—Craig made five comments/suggestions about his own paper (e.g., "I'm definitely going to go way a lot more into it and add to my argument, so I need way a lot more research," and "I didn't really pick a side yet. I need to take a side...I mean, sure, they're embryos, but awesome things are coming out of [stem cell research]." To each of these comments, Kyle's only reply was either to nod somewhat enthusiastically or to say "Yeah"—on one occasion, he did both. The total amount of time spent on Craig's paper was 7 minutes and 21 seconds; almost immediately after Craig's final comment about his paper, attention shifted to Kyle's draft of his paper on the conflict in Darfur.

Kyle also read his draft (like Craig's, the draft was unfinished, barely four pages) all the way through without interruption or stopping. After the draft was read, Craig

made a comment to which Kyle responded, and the rest of the session consisted of a back-and-forth exchange between the two, discussing various aspects of Kyle's draft and his topic. At one point, the discussion of the paper morphed into a conversation about politics and American military action overseas; this digression lasted just over three minutes, until Craig made a connection back to Kyle's paper and the discussion continued for a minute or two more. The total amount of time spent on Kyle's draft was 16 minutes and 8 seconds, after which both students turned their attention to filling out the grading rubrics, which they did quickly and without conversation, apart from a comment on Kyle's part about how quickly they'd finished talking about their papers and how much time (over an hour) there was left of class.

PPR Session 3: Mary and Amy

At the start of the peer response time, Mary asked if she could share her draft first, since she was very worried about it—though she did not, as the peer response framework suggested, identify specific concerns before reading her paper[32]. She read her paper, which was about global warming, with no stops and no interruptions from her peer response partner, and the students then spent approximately 15 minutes discussing concerns that each had with the paper, primarily the lack of research and reflection—both of which were important components of the assignment. At one point during this discussion, as they were attempting to determine the role that reflection should play in

[32] Not one of the sessions I observed involved an author identifying concerns at the start of the session, and Mary was the only participant to express worry about her draft before reading, though several other students did make face-saving comments (e.g., "It's not very good" or "It's not really finished yet") during and after their sessions, which could be interpreted as expressing concern similar to that exhibited by Mary.

Mary's conclusion, Mary decided to solicit the help of their instructor, who joined the conversation for approximately two minutes before moving on.

After that fifteen-minute conversation, there was a seven-minute lull in the discussion as Mary paused to rework a paragraph they had been talking about, and Amy took that opportunity to begin filling out the grading rubric. When Mary finished revising her paragraph, Amy began asking her questions from the rubric, asking her to point out the aspects of her paper that the response sheet required responders to verify (e.g., thesis, use of 5 or more recent sources, use of "appropriate" citation). The session focusing on Mary's draft ended when Amy completed the grading rubric; the total amount of time spent on Mary's draft was 29 minutes and 32 seconds.

The discussion of Amy's paper began much the same as Mary's: Amy read through the entire paper with no interruptions, and only one brief pause when she stumbled on a sentence and went back to reread it. However, the rest of the session was spent almost entirely on a discussion of one issue: the different perspectives she presented in her paper on Attention Deficit Hyperactivity Disorder (ADHD). After an argument about the number of points of view that Amy presented that sent both students back to the text looking for support for their interpretations, the students spent the remainder of the session talking about how to balance the different perspectives, and how Amy might effectively research points of view on the issue other than her own. At the very end of the session, as Amy was gathering her papers together, Mary pointed out a missing period at the end of a sentence on the first page of her draft. The total amount of

time spent on Amy's draft was 20 minutes and 4 seconds.[33]

PPR Session 4: Debra and Michelle

This session began with Debra reading the draft of her paper on euthanasia; she read quickly, and was interrupted three times by comments from Michelle, who asked her to repeat sentences she hadn't understood. When Debra finished reading, Michelle went through the grading rubric item by item, asking each question out loud and either answering it herself or soliciting a response from Debra. Occasionally, Michelle would offer comments or suggestions related to an item on the grading rubric (e.g., after reading aloud the rubric item addressing "Reflection," Michelle suggested that Debra add "another sentence or two at the end" that addressed what Debra had learned from the experience of writing her paper, since, as Michelle put it, Debra "said it real fast at the start and then it was gone"). The session, which lasted for 14 minutes and 23 seconds, was over when Michelle read and recorded her answer to the final rubric item, at which point attention shifted to Michelle's draft.

As Michelle read the draft of her paper about the impact that violence in the media has on children, she stopped or was interrupted several times to reword sentences or to address brief comments or questions from her partner. When Michelle finished reading, Debra turned immediately to the grading rubric, and began working through it question by question in much the same way Michelle had done in response to Debra's draft. The total amount of time focused on Michelle's draft was 23 minutes and 18 seconds.

[33] This was the only peer response session in which the grading rubric—which could be seen as part of the session, and frequently prompted additional comments and discussion—wasn't completed during class time. It is possible that Mary completed the rubric after class.

PPR session feedback

After transcribing each of the PPR sessions, I sorted the feedback offered by the responders into nine categories[34]: Offering general or vague praise (e.g., "I liked it!" or "I think this is really good"); Discussing Higher Order Concerns (HOCs) (e.g, referencing a need for specific major revisions, including changes to the text's organization, structure, or thesis); Discussing Lower Order Concerns (LOCs) (e.g., referencing a need for specific minor refinements, including word choice or word order, as well as correction of typos or formatting issues); Repeating back/text playback (e.g., offering an understanding or interpretation of the whole text or some aspect of it); Responding as audience (e.g., offering a reaction based on how the text influenced or affected the responder, including whether and/or how the text did or did not meet the responder's needs or expectations); Discussing writer's strategies (e.g., providing general suggestions of approaches that could be taken to address concerns, including suggestions regarding conducting additional interviews or research, or expanding on certain areas of a paper or argument); Modeling (e.g., providing examples from the responder's own text or experience); Asking questions (e.g., requesting clarification or information); and Gesturing to emphasize or explain (e.g., using hand gestures to indicate reorganization of a text, or pointing to particular aspects to emphasize a point).

[34] Though these nine categories arose from the data through the course of the coding process, I realized as I began to organize and refine the comment categories that many of them were similar to those developed in Simmons' (2003) study of peer response in high school writing classes While I did not set out to impose Simmons' categories on my data, I strongly suspect that my reading of Simmons' research greatly informed the comment categories I constructed (see Appendix G for Simmons' response categories).

Occasionally, a single comment would fall into two or more categories, as in this example, from Amy in her PPR session with Mary, which fell into both the "Discussing writer's strategies" and "Repeating back" categories: "I think you could expand a lot because you talk a lot about how it might not be humans, and I think there should be one paragraph on the gray area." In these cases, the comment was counted as belonging to all of the categories to which it applied. Table 8 below shows the type and number of instances of feedback observed in each PPR session.

Table 8 Categories of response observed in PPR sessions

Feedback Category	PPR Session 1	PPR Session 2	PPR Session 3	PPR Session 4	Total
Offering general or vague praise	1	1	1	4	7
Discussing Higher Order Concerns	1	0	2	2	5
Discussing Lower Order Concerns	18	0	1	2	21
Repeating back/text playback	8	2	7	12	29
Responding as audience	0	0	7	2	9
Discussing writer's strategies	14	4	9	4	31
Modeling	8	9	1	2	20
Asking questions	5	1	4	22	32
Gesturing to emphasize or explain	14	3	7	3	27
Total	69	20	39	53	181

The DPR Sessions

Narrative Descriptions of DPR Sessions

The structure of the DPR sessions differed greatly from that of the PPR sessions, in part due to the nature of the texts under discussion. The instructor, Liz, decided to have the entire class view and respond to each iMovie project, in order to give each author or group of authors the opportunity to show their iMovie projects using the classroom's LCD projector and stereo speakers (the latter being especially important, as response groups might otherwise have had to attempt to hear soundtracks through shared headphones). The entire class would view each project, then would break into their individual response groups for five minutes to discuss their feedback, and finally would share their feedback with the authors and the rest of the class. This change to the peer response structure made adhering strictly to the four-part-peer response framework impossible, but the instructor asked that her students keep the framework in mind and attempt to follow its steps whenever possible. Each of the sessions described below involved a certain amount of time coping with technology issues (e.g., sound problems, file exporting, connecting/disconnecting different computers and/or storage devices to the LCD projector); the time taken by instructor and students to address these issues has not been included in the given session lengths.

DPR Session 1: Craig, Kyle, and Connor

The first group, consisting of Craig, Kyle, and Connor, played their draft iMovie about steroids in baseball. There was an error on the title screen ("Stroids" instead of "Steroids") that elicited laughter and some apparently good-natured teasing from

students, but apart from this there were no audible comments or reactions and no significant visible movement from the audience while the iMovie was onscreen.

When the movie finished, the instructor reminded the class that they would be meeting in their small groups for five minutes to discuss their responses to the video; these small group discussions were fairly animated, with all but one of the groups continuing to discuss their responses to the iMovie for the full time they were allotted by the instructor. (The remaining group talked about the iMovie they'd just seen for only 2 minutes before starting to work on their own iMovie projects.)

After 5 minutes and 43 seconds, Liz called an end to the small-group discussion time and invited groups to share their comments with the authors. A few students volunteered comments after prompting from the instructor—primarily Susan, Michelle, and Mary, who seemed to be speaking for their respective small groups and who took turns offering feedback, frequently engaging in back-and-forth discussion with the authors and each other about the issues they'd identified as problems in the text. Liz joined in the discussion, too, sometimes repeating or rephrasing a comment offered by students, and twice offering her own response to certain portions of the iMovie. The authors responded to the few questions they were asked, but for the most part remained silent during the discussion of their text. The total time spent in whole-class discussion of Craig, Kyle, and Connor's iMovie was 9 minutes.

DPR Session 2: Yildiz, Denise, Jocelyn, and Ji Sun

The second group to share their digital text consisted of Yildiz, Denise, Jocelyn, and Ji Sun, who were collaborating on an iMovie about globalization. Before playing

their iMovie draft, Yildiz told the class that they weren't finished, and that they knew they still had to add in "the positives" (i.e., the beneficial aspects of globalization—their draft as they shared it during peer response only addressed the negative). During the 3 minutes 10 seconds of their iMovie, there were no audible comments from the audience, and no one was observed to be taking notes or making any other discernible movement, apart from a few students who drank from water bottles or briefly checked the screens of their cell phones.

The small group discussion was less animated that it had been for the previous session, and no group went beyond expressing that they were impressed with the 2-minute animation that opened the iMovie but confused by the animation's meaning and/or the meaning of the entire text. All the groups stopped discussion the text after three and a half minutes, and, perhaps noticing this, Liz called an end to the small-group discussion at 4 minutes and 32 seconds.

The comments offered to the authors during the whole-class discussion focused entirely on the two points that had dominated the small-group discussion: the animated portion of the iMovie, and the overall point of the iMovie as a whole. Several peers, as well as the instructor, expressed confusion at whether the iMovie's animation, music, and text were intended to frighten or amuse the audience, or just make them curious. After these comments and questions were discussed briefly, no other students volunteered additional feedback, and the whole-class portion of the session ended after 4 minutes and 1 second.

DPR Session 3: Anisa and Erica

The third iMovie draft shared for peer response was composed by Anisa and Erica, and addressed the topic of eating disorders. Their draft was 3 minutes and 48 seconds long, and as was the case with the previous two DPR sessions, there were no comments and very little movement from the audience as the movie played.

The small group discussion began immediately after the iMovie ended, without prompting from the instructor. Many small group members expressed concerns about several technical aspects of the iMovie (e.g., the volume of an important voiceover track, the speed with which several images transitioned into each other), and discussed these at length, occasionally commiserating with Anisa and Erica (though not directly) at how difficult fine-tuning these aspects in iMovie can be. For the most part, each response group stayed on task for the entire small-group discussion part of the session, which lasted 5 minutes and 11 seconds; the one exception was the group to which John, the sole author of the final iMovie to receive feedback (see below) belonged. This group of four students didn't discuss Anisa and Erica's text at all, and instead turned to their computers immediately after the movie concluded.[35]

When the discussion was opened up to the entire class, the first three minutes of feedback focused on the technical issues that had dominated the small-group discussions, and several solutions were proposed that many students—not just the authors of the text being discussed—appeared to make note of. For the remaining whole-group discussion, students commented on their own emotional responses to the images that Anisa and Erica

[35] Because of the placement of the camera, I was only able to observe the screens of two of the group members' laptops: John, the author of the next iMovie to be presented, appeared to be working on his iMovie project. The other student, Tricia, was using Facebook.

had used, and suggested ways in which additional and different images might evoke an even stronger response. The total time spent on whole-class discussion of this text was 6 minutes and 1 second.

DPR Session 4: John

Perhaps because he had no collaborators on his project, John seemed the most nervous and reluctant to share of all the authors in the DPR sessions I observed. He made several deprecatory comments (e.g., "I'm going to FAIL, fail, fail," "[the iMovie]'s only about one minute [long]") before finally allowing Liz to start the movie, which addressed violence in the media—specifically in rap music. As the iMovie played, John made comments regarding what was missing, what he intended to add in the final version, and, several times, how bad he thought various parts of his movie were. He was eventually shushed by the instructor. Despite John's having announced that the movie was only about a minute in length, it actually clocked in at 3 minutes and 28 seconds.

For reasons that she didn't address, the instructor neglected to have students discuss John's movie in small groups, jumping straight to the whole-class discussion, and joining in with her own comments eight times—far more than she had in the other DPR sessions, where her role during the whole-group discussion had seemed more managerial than participatory. Unlike other sessions, in which students had discussed the text in question both with the author and with other classmates, all of the comments during this session were directed only at John, who responded at length to most of them, sometimes defensively. The comments ranged from questions about the meaning of text John had included on an opening screen (a Creative Commons emblem about which John

responded, when asked, that he thought was the symbol for Closed Captioning) to suggestions that he consider including text of some of the lyrics of songs he was using, to further draw attention to the words. The time spent by the class responding to John's iMovie was 11 minutes and 56 seconds.

DPR session feedback

The feedback offered each of the DPR sessions was sorted into the same nine categories as had been used to sort the PPR comments: Offering general or vague praise; Discussing Higher Order Concerns (HOCs); Discussing Lower Order Concerns; Repeating back/text playback; Responding as audience; Discussing writer's strategies; Modeling; Asking questions; and Gesturing to emphasize or explain. Because students discussed each digital text first in small groups and then with the entire class, many comments were mentioned in the former and then repeated, sometimes with development or clarification, in the latter. In these cases, the comments were considered part of the same instances of feedback and were only counted once. Table 9 below shows the type and number of feedback observed in each DPR session.

Table 9 Categories of response observed in DPR Sessions

Feedback Category	DPR Session 1	DPR Session 2	DPR Session 3	DPR Session 4	Total
Offering general or vague praise	4	1	4	0	9
Discussing Higher Order Concerns	2	2	4	5	13
Discussing Lower Order Concerns	2	0	4	1	7
Repeating back/text playback	2	0	1	0	3
Responding as audience	5	5	6	10	26
Discussing writer's strategies	3	1	2	10	16
Modeling	0	0	0	0	0
Asking questions	1	5	1	2	9
Gesturing to emphasize or explain	0	0	1	2	3
Total	19	14	23	30	86

Debriefing the sessions: Post-Peer Response surveys

Development of revision plans

Revision plans developed following PPR sessions

The final item in the brief post-peer-response survey distributed after each round of peer response asked students to describe any plans for the revision of their texts that had been developed during the course of this peer response session. (See Appendix B for the complete post-session survey.) Of the 20 students who responded to this survey item for the PPR sessions, all but two reported having developed some plan for revision as a result of the session; of those two students who didn't report having a plan, one responded as though the revision had already taken place ("i changed my thesis around a bit and made some grammatical changes"), and the other student responded "nothing

yet," leaving open the possibility for later development of a revision plan. The plans for revision as reported by students varied greatly in content, scope, and degree of specificity, ranging from vague general statements that offered no specifics (e.g., "everything that my peer response person suggested, i'll look at") to detailed (e.g., "To include more research. Tie together position. Include both sides. Work on telling a story of my process of learning about the topic").

In order to determine the degree to which students left their peer response sessions able to articulate the next steps in their revision process, responses to this survey item were grouped into three categories: "No plan," when the participant indicated no current plan for revision; "Evidence of plan, with little or no detail," when the participant either indicated an awareness of the need for revision in a general way, without offering any detail as to what that revision would entail, or singled out an aspect or aspects of the text that needed attention, but offered no real insight into the ways in which those aspect(s) would be addressed; and "Evidence of plan, with concrete detail," when the participant indicated specific action that will be taken to address at least one area of concern in the text. Ten percent (two responses) were labeled "No plan," 35% (7 responses) were categorized as "Evidence of plan, with little or no detail," and 55% (11 responses) fell into the category of "Evidence of plan, with concrete detail." See Table 10 below for the responses to this survey item, grouped by category.

Table 10 Revision plans developed as a result of PPR sessions (n=20)

No plan	Evidence of plan, with little or no detail	Evidence of plan, with concrete detail
nothing yet	thesis, format/structure	I'm going reduce the use of quotes and go in greater detail about my quotes that i am using.
i changed my thesis around a bit and made some grammatical changes	everything that my peer response person suggested, I'll look at	Adding more detail, go over information to see if it's relevant to topic, add more research
	citations, more reflections	I'm going to re read through this and map out where things would fit better.
	Better organization	Rewrite some form of an outline and organize my paper into that structure.
	more research, mla citations	To include more research. Tie together position. Include both sides. Work on telling a story of my process of learning about the topic.
	more detailed information, citations, and connections	i need to elaborate more on certain areas to help the reader understand what i am talking about
	a lot on my quotes and presenting my ethos	I need to make my paper clearer with my research so that my audience will be able to understand better.
		restructure and focus my arguments, use more quotes and info from sources and reflect more
		I need a thesis, more research, and reflection in my paper.
		Do more research and be more organized
		I decided that they were right and I do need to reorganize and add more argument to a couple of my body paragraphs.

Revision plans developed following DPR sessions

The final item in the post-DPR survey also asked students to articulate any plans for revision that they had developed as a result of their peer response session. (See Appendix B for the complete post-session survey.) Of the 15 students who responded to this survey item, only one did not report having developed a plan for revision as a result of the session, offering instead a response that indicated that the required revision had already taken place. The remaining 14 responses indicated some degree of revision plan development; these responses were sorted into categories based on the level of specificity and detail in the reported plan, using the same category definitions used to sort the responses to this item in the PPR post-session survey. Table 11 below presents the responses to this survey item, grouped by the degree to which the response indicated development of a revision plan.

Table 11 Revision plans developed as a result of DPR sessions (n=15)

No plan	Evidence of plan, with little or no detail	Evidence of plan, with concrete detail
i changed it up	change the text so it's more understandable.	Reorder facts and change text scrolling.
	more detail and solutions	we need to revise visual effects and make it clear between our two opposing aspects
	We plan on making quite a few revisions to the project because of peer review	We are going to change some of the transitions, organization, and overall include different aspects to get the point across more effectively.
	more recorded video	Put in our song, take out the words, and put in different pictures.
	global warming solutions.	we are going to add more strips in between to explain this better
	more discussion	
	less text	
	fix the errors	
	shorter intro, more background info	

Conclusion

This chapter has presented the results from the data generated by my research into peer response of print-based and digital texts in one first-year writing classroom. The data discussed in this chapter were drawn from multiple sources: initial participant survey questionnaires that solicited information regarding previous experiences with, and attitudes towards, peer response; detailed transcripts of the video and audio recordings made of eight peer response sessions—four PPR and four DPR; post-peer response survey questionnaires that gauged students' goals for and perceptions of each recorded peer response session; and classroom artifacts, including peer response framework worksheets, assignment handouts, and grading rubrics. These results provide a window

into the ways in which peer response in the same classroom of texts composed in different media can result in very different experiences for the writers involved.

In the chapter that follows, I will discuss the significance and implications of my results. I will posit reasons for the differences and similarities between the PPR and DPR sessions as they are represented by my data, I will examine the answers I have begun to develop to my guiding research questions, and, perhaps most importantly, I will suggest steps that can be taken towards the development of a revised approach to peer response that can be used in both PPR and DPR sessions, and, to that end, will offer suggestions for further research into the use of peer response with digital texts.

CHAPTER 5: DISCUSSION AND IMPLICATIONS

In this chapter, I revisit my guiding research questions in light of the results of my research, and I discuss the ways in which those results now lead me to answer those questions. Additionally, I discuss the implications of these answers in the context of peer response of digital writing, and for composition teachers who engage in in-class peer response. I also discuss other results that do not arise from my initial research questions, but still serve to shed light on the use of peer response in this classroom. In this chapter I also address some limitations of this work, and I conclude by suggesting future research that could be undertaken by those interested in the intersection between peer response and digital writing.

Addressing my research questions

Because my research questions served as such a valuable point of departure for my data analysis, as well as a useful initial frame for interpreting my results, it seems appropriate to begin the discussion of my results with those questions, which were:

1. Do participants in a peer response session use different modes of response while offering feedback in print-based text peer response (PPR) and digital text peer response (DPR) sessions?
2. How, if at all, do the modes of response employed relate to whether the text under discussion is digital or print-based?

Of the two, the first is far easier to address—when the comments offered in the PPR and DPR sessions are examined side by side (see Table 12 below, which combines for easier comparison the PPR and DPR comment categories and totals presented in Tables 8 and 9 in Chapter 4), it quickly becomes apparent that the PPR and DPR sessions differed greatly in both the number and type of comments offered.

Table 12 Comparing number and type of comments across PPR and DPR sessions

Feedback Category	PPR Total	DPR Total
Offering general or vague praise	7	9
Discussing Higher Order Concerns	5	13
Discussing Lower Order Concerns	21	7
Repeating back/text playback	29	3
Responding as audience	9	26
Discussing writer's strategies	31	16
Modeling	20	0
Asking questions	32	9
Gesturing to emphasize or explain	27	3
Total	181	86

However, addressing the second of my two research questions is more complicated: while student approaches to response differed greatly in the PPR and DPR sessions I observed, the reasons why are not as apparent. In order to better represent these differences and their origins as I have come to understand them, I will address each significant point of comparison in turn, beginning with what was, for me, the most surprising: the difference between the number of comments offered in the sessions that addressed Higher Order and Lower Order Concerns.

Higher Order Concerns (HOCs) vs. Lower Order Concerns (LOCs)

A significant difference can be found in the focus within the PPR and DPR sessions on either Higher Order[36] or Lower Order[37] concerns. In the PPR sessions, comments addressing LOCs (21 comments) were offered three times as often as comments addressing HOCs (7 comments), and the opposite was true for the DPR sessions, in which HOCs (13 comments) were addressed almost three times as often as LOCs (5 comments). Because HOCs are frequently addressed earlier in the writing process than are LOCs, this result would be expected if the PPR drafts had been presented at a later stage of development than the DPR drafts, but this wasn't the case with these sessions: peer response took place at the same point in the composing process for each text—approximately one week before final drafts were due, at a point at which major global revision of the text is unlikely and impractical, and therefore discussion of Lower Order Concerns would be more appropriate in most cases.

Additionally, though I intentionally excluded from this research any attempt to evaluate the quality or appropriateness of the feedback offered by responders[38], I did observe many instances of what I would consider Lower Order Concerns, including misspellings, misplaced capitals, missing or incorrect punctuation, poorly timed transitions, inconsistent formatting of text, and inappropriate audio levels, in each of the digital video drafts shared during the DPR sessions, and therefore cannot conclude that the reason surface-level problems were not addressed is that such problems were not present. Why, then, would students be led to comment more on surface-level issues

[36] These are more global issues, such as those relating to thesis argument or organization, that would likely involve major revision if addressed.
[37] These are surface-level issues, such as those related to punctuation or spelling, that could require significant proofreading, but would likely not require a substantive revision to the text.
[38] I address the need for such a study later in this chapter.

during the PPR sessions, but address more global concerns when responding to their peers' digital texts? My observations and analyses lead me to identify two contributing factors: 1) the difference in the ways in which the digital and print-based texts were presented to responders during the two rounds of peer response; and 2) the responders' lack of vocabulary with which to address LOCs in digital texts.

Print-based paper text or digital text: Interaction vs. presentation

The ways in which the print-based paper and digital texts were presented to responders differed greatly during the two rounds of peer response observed for this research. As was described in the previous chapter, students shared their print-based paper texts with one or two other responders seated at the same table, reading the text aloud while their peer response partner(s) followed along, and frequently sharing the same printed copy of the text. During peer response of the digital texts, however, the students' digital movies were displayed one at a time on a large screen, using the instructor's laptop connected to a ceiling-mounted LCD projector, and to an audience that included the entire class[39]. The instructor's laptop remained on a lectern at the front of the room during the DPR sessions, and the instructor herself controlled when the text playback began and ended in these sessions; however, in the PPR sessions, both the author and the responder(s) had the ability to impact when reading of the text started and stopped. In fact, this starting and stopping—occasionally author-initiated, but frequently due to interruptions from the responders—was a prominent feature in several of the PPR sessions, and coincided with most (all but 4 of the 21 total) of the instances of LOC

[39] It is worthy of note that the circumstances of the DPR sessions positioned students more passively, as viewers or receivers of texts rather than as respondents or fellow authors. While I do not address this complexity here, it is one I hope to explore in future research.

comments in those sessions. In these sessions, both the authors and responders frequently seemed driven to address LOC issues as soon as they noticed them, i.e., during the initial read-aloud, instead of after the author finished reading the paper, as they had been told to do by both their instructor and by the mandated peer response protocol. The responders' inability to stop the playback of the digital texts in order to comment or question—as they did frequently during the reading of the texts during PPR sessions—may very well have resulted these issues being neglected in favor of comments or questions about other, more global issues or concerns.

This difference in how responders were (or weren't) able to interact with the texts seems related to two other significant differences revealed by the comparison in Table 12: first, the significantly greater number of gestures made to emphasize or explain feedback in the PPR sessions (27 instances) as compared to the DPR sessions (3 instances), and second, the difference in the number of total comments made in the PPR and DPR sessions (181 total comments and 86 total comments, respectively).

Though gestures were, in the PPR sessions, used several times to emphasize comments relating to HOCs (as in Anisa and Erica's session, in which many of the expressive gestures were used to demonstrate reorganization of the paper), the majority of these gestures involved responders commenting on Lower Order Concerns, asking questions, or discussing writers strategies, and to that end the responders physically manipulated the texts, flipping back and forth through the pages, pointing to different sections, demonstrating suggested revisions, or indicating confusing sentences by circling them with a finger. These gestures, while they rarely occurred without verbal

accompaniment[40], served to emphasize the points being made, and while I had no way of determining conclusively whether the authors of the texts in question paid more attention to those comments which were accompanied by gestures, my perception of the engagement of author and responder(s) during the sessions, and the greater amount of time spent discussing the issues to which the gestures were related, lead me to believe that this was likely the case.

This inability to stop the playback for comments or questions during the viewing of the digital texts also likely, and perhaps unsurprisingly, contributed to the greater number of total comments offered in the PPR sessions—during the PPR sessions, that initial sharing of the text became part of the time during which comments could be made, and, as previously discussed, responders and writers alike frequently availed themselves of this additional opportunity for conversation about the texts. The actual time devoted to response in the PPR and DPR sessions varied greatly, with time spent presenting and discussing each text in the PPR sessions averaging 19 minutes and 43 seconds in length and presentation and discussion of texts in the DPR sessions averaging 13 minutes and 39 seconds. I do not, however, believe that the entire difference between the total number of comments in the PPR sessions (181 comments) and the DPR sessions (86 comments) can be attributed solely to the shorter average length of the DPR sessions, since the DPR sessions were brought to a close by the instructor only when no additional comments or questions were forthcoming from responders, and would apparently have continued if students had had more to say. More likely, it seems, is the explanation that the

[40] In only one instance did a responder use only a gesture, without some spoken accompaniment, to indicate an identified problem: during Debra and Michelle's PPR session, Debra simply placed a finger next to an error she perceived in the text as Michelle was reading, and Michelle corrected it quickly before moving on.

opportunity to comment during the initial experience with the text—an opportunity available only in the PPR sessions—led to comments being made that were unfortunately not made, and were therefore lost, during the DPR sessions.[41]

Lack of vocabulary for discussing LOCs in digital texts

Another factor that may well have contributed to the lower number of LOCs addressed in the DPR sessions could be respondents' inability to discuss what would be considered Lower Order Concerns in digital texts. Since they had no trouble at all identifying and discussing LOCs during the PPR sessions, students' failure to identify problems with and offer feedback on Lower Order Concerns in their peers' digital texts could very well be due to their lack of the vocabulary and understanding necessary to do so. This might be due in part to a general unfamiliarity with composing digital texts, specifically digital movies, and in part to how the assignments were presented by the instructor.

The assignment sheet and grading rubric for the print-based paper assignment (See Appendices D and E) include requirements that emphasize the importance of LOCs, including reminders to proofread and edit carefully and document sources correctly according to the chosen citation style. However, the iMovie assignment sheet (See Appendix F) focuses entirely on Higher Order Concerns, with the possible exception of a mention of the importance of ethos, which, while not at all entirely an Lower Order

[41] In fact, a number of popular training guides for writing center tutors include chapters on in-session note-taking, and emphasize the need to develop and practice these note-taking strategies, due to how difficult it can be to remember the comments that come to mind while a text is being read, and how little time there is while reading and/or listening to a text to make notes. The need for a quick and efficient way to make note of responses and reactions is even more pressing when responding to digital texts, given how much could be missed if a responder looks away from the screen to make note of something.

Concern, had been used as an example in a previous class as a justification for thorough proofreading—the idea being that poor attention to things like mechanics and punctuation might cause an audience to have difficulty in trusting or respecting the writer.

In the PPR texts, the Lower Order Concerns seemed to stand out to the responders, so much so that they would frequently interrupt the author's reading in order to point out an incorrectly formatted citation, missed punctuation mark, or misspelled word—and, in fact, a similar response occurred from several members of the audience at the start of the first DPR session, when a pause before the first video began gave responders time to notice and comment on the misspelling of "Steroids" on the title slide. However, this was the only instance in any of the DPR sessions in which comments were offered while the text in question was displayed on the screen. As I mentioned previously in this chapter, I observed a number of what I would consider Lower Order Concerns in the digital texts shared during the DPR sessions,[42] only about half of which were the kinds of problems that could also be encountered in print-on-paper texts (i.e., misspelled text, inappropriate citation formatting, misused or missing punctuation). The rest of these LOCs were unique to the digital media in which the texts were composed, and included issues of image size and resolution, transition speed and timing, text size and readability, and audio quality.

My conclusion that responders may have lacked the understandings and/or vocabulary necessary to discuss these issues in detail is supported by the fact that when one of these digital-media Lower Order Concerns *was* addressed by responders, it was invariably discussed not in terms of the specific LOC involved (e.g., the levels on the

[42] Interestingly, I noticed the majority of these Lower Order Concerns on my second and third viewings of the DPR session videos.

voiceover track are set too low in relation to the background music track) but instead in the context of the responder's experience as an audience member (e.g., "I couldn't hear what she was saying").

Repeating back ("What I heard") vs. responding as audience ("What I need")

Responders in PPR sessions were also far more likely than those in DPR sessions to repeat back to the author what they had heard or interpreted from the text (PPR: 29 comments; DPR: 3 comments), but were far *less* likely than those in DPR sessions to respond from the audience's perspective in an attempt to communicate what they themselves or a hypothetical audience would need or expect from the text (PPR: 9 comments; DPR: 26 comments). These two comment categories are related, as they both provide an author with a window in to how their text is being or might be received, but in different ways: when responders make Repeating Back comments, they make statements related to their interpretation of the text as it is, without necessarily implying or intending to indicate the need for a specific revision. In these types of comments, responders are, for the moment at least, treating the text as a complete and cohesive whole, whereas the Responding as Audience comments do the opposite, acknowledging the text as a work in progress and making suggestions for how it might better meet the needs of its audience.

Both kinds of feedback—i.e., how what one has said is being interpreted, *and* what else one's audience would like to hear—could potentially be valuable to a writer during his or her revision process, and the fact that neither the PPR nor DPR sessions elicited an equal number of each kind of feedback is troubling.

Modeling

Another significant difference in the feedback offered in the PPR and DPR sessions relates to the response category of "Modeling." In the PPR sessions, there were 20 instances of Modeling comments (i.e., comments in which responders drew examples from their own current or previous writing projects to offer feedback or suggestions to their peers); however, there were no instances at all of this kind of comment in the DPR sessions, even though all of the students in the class were working on similar digital movie projects and therefore had at least one relevant composing experience on which they might have drawn.

Modeling in the PPR sessions not only helped communicate useful feedback, but it provided responders with the opportunity to display a degree of expertise, and to articulate something they'd learned or discovered about writing in order to assist a peer. It may be possible that none of the students participating in the DPR sessions felt confident enough about their abilities as digital writers to use their own experiences—even their own trial and error—as a model to benefit their classmates. Whatever the cause, this is unfortunate, given the usefulness of modeling in the PPR sessions not only to communicate useful tips, but also to develop a sense of collaboration and mutual endeavor: many of the instances of modeling also had an overtone of commiseration and shared experience that seemed to strengthen the rapport between group members.

Discussion of those results not arising from my research questions

Not all of the results of my research worth discussing arose from my original research questions. As I coded and analyzed my data, I discovered three additional areas

of interest not directly related to the types of response offered in the PPR and DPR sessions: 1) use of the response framework; 2) teacher involvement in the sessions; and 3) development of revision plans.

Use of the response framework

Though I didn't set out to examine the impact of the peer response framework[43] itself on the sessions I observed, I frequently found myself, as I reviewed the video and audio-recordings of the sessions, noting the ways in which response groups deviated from the framework's prescribed steps. Not one session I observed adhered to the four-part framework, though—as is evident from the narrative descriptions of the sessions in Chapter 4—each session departed from the framework in different ways and to varying degrees. Because I had no non-framework control group to compare to the sessions I observed, I can't say to what extent the imposed peer response framework had an impact on the ways in which the response sessions played out, but I can say that the framework definitely didn't determine the shape of the sessions in the way it was intended. It is significant that though the students in these response groups supposedly didn't have the agency to determine the structure of their response sessions, they sought to—and did—influence the session structure regardless.

Once of the more interesting ways in which they resisted this framework has been addressed already in this chapter: students in the PPR sessions frequently offered comments and feedback during the reading of the text in the PPR sessions, instead of taking notes to inform the discussion after the author had finished reading. Additionally,

[43] The four steps of the response framework are as follows: 1. Author identifies concerns; 2. Author reads text aloud, responders listen and take notes; 3. Author remains silent while responders discuss their response to the text; and 4. Author joins in discussion.

the writers in both the PPR and DPR sessions ignored the framework's prescription that the author refrain from joining in the conversation about their text immediately (with the exception of John, whose attempt at a response to feedback during discussion of his digital movie was denied by the instructor).

The students'—and, in the case of the majority of the DPR sessions, the instructor's— failure to adhere to the response framework, when viewed alongside the obvious value many writers found in the feedback they received in their response sessions, leads me to question whether this ignoring of the response framework is actually a problem at all. While my data cannot show whether students would have developed even more effective revision plans had they adhered strictly to the four-part framework, my results *do* indicate that deviation from the framework was frequently productive, especially in the PPR sessions, in which response groups had a great deal more freedom to revise the session structure as they saw fit. In fact, the sessions that most closely adhered to the framework, the PPR sessions involving Kyle and Craig (see narrative description on page 85), were the least productive of any of the sessions in terms of session length, amount of discussion, and number of comments offered. Though more research would be necessary to verify this, these results lead me to suspect that perhaps a loosely enforced framework, or none at all, would be a more effective approach to structuring peer response sessions than strict enforcement of a rigid response framework.

Teacher involvement in PPR vs. DPR sessions

The different ways in which the instructor, Liz, interacted with students during the PPR and DPR sessions also had a significant impact on the ways in which those sessions progressed. In the PPR sessions, Liz circulated around the room as the response groups read and discussed their texts; she occasionally paused to observe groups and listen to the discussion, but rarely stopped for more than thirty seconds before moving on to another group. On two occasions, discussions within response groups reached a point at which one or both group members decided they needed clarification or feedback from their instructor, and there were brief discussions about whether or not to call Liz over to join the discussion. Once the instructor was invited in to the session, students seemed to defer to her judgment and opinion, both while she was present and after she left to continue circulating throughout the classroom—on one occasion, towards the end of a session, a group member referred to Liz's having praised the conclusion of her response partner's essay as reason enough for her partner to discount her own opinion that the conclusion needed work.

Liz's role in the DPR sessions was very different. Because the feedback in the DPR sessions was offered in whole class discussions that were supplemented by small-group conversations, Liz was present for the entire discussion, and served either as moderator and participant throughout, and on at least one occasion, simultaneously: during John's DPR session, Liz offered a somewhat detailed response to his movie from her perspective as a viewer (as opposed to as his instructor). When she finished her thought, John seemed anxious to respond, but—perhaps remembering the step in the peer response framework that mandated the author remains silent while the response group

discusses the text—he asked Liz (in her role as instructor) whether he was allowed to respond to her comments. She replied that no, he wasn't allowed to respond yet, at which point she invited other students to comment further on his text. This was only the most obvious of the many instances of Liz's switching between roles throughout the DPR sessions—she was an active participant in each session, making several comments about each video during the whole class discussion, and also occasionally repeating comments made by others, seemingly to reinforce them.

Given the tendency of students to defer to her opinion during the PPR sessions, I had expected to observe something similar in the DPR sessions, but this wasn't the case—in fact, several students even disagreed, though not directly, with some of Liz's comments by offering positive responses about aspects that Liz seemed to find problematic. Though Liz never relinquished the role of instructor during the DPR sessions, and though students did not interrupt or talk over her, as they occasionally did each other, her comments seemed to carry no more weight with the rest of the responders[44] than did their own, which is particularly interesting, given that she would be the one assigning the grades once the projects were completed.

Revision plans

Finally, students came out of DPR sessions reporting far fewer ideas for revision than they did after the PPR sessions, and those students who were able to articulate revision plans following their DPR sessions offered fewer specifics about those plans. After the PPR sessions, eleven students reported having developed revision plans about

[44] There is no way to tell from my data, however, whether Liz's opinion carried more weight with the authors.

which they were able to offer concrete detail, seven students seemed to have gained some direction regarding their revision but provided little or no detail, and two students described no revision plan at all—though one of these students indicated having already completed her revision in the session. However, after the DPR sessions, only five students articulated detailed revision plans, while nine students seemed to have some direction but offered no specifics, and one student (not the same as in the PPR sessions) indicated having already completed his revision within the response session.

This result is, to me, both the most interesting and the most troubling, since I've always maintained that the primary goal of peer response is the facilitation of a plan for revision that students can use to improve their texts. The fact that fewer students in the DPR sessions were able to articulate concrete approaches to revision as a result of their peers' feedback is clear indication that the DPR sessions were failing to meet the needs of these writers in a fundamental way, and a good indication that a different approach to the peer response of digital texts is required.

Implications for the practice of peer response of digital texts

Though additional research will certainly be necessary to determine and refine the shape of any new approach to peer response of digital texts, my research suggests that such an approach would benefit from the inclusion of the following features:

1. Opportunity for multiple viewings of digital texts

In the PPR sessions I observed, authors and responders read and reread different sections of the text, sometimes repeating a sentence in order to test its flow or tease out

its meaning, and other times repeating a troublesome word or phrase several times as part of an attempt to replace or revise it. Response group members used this repetition both on their own and collaboratively, sometimes rereading sections silently to themselves before making notes or suggestions, and sometimes going over sentences together, repeating phrases again and again with small alterations until coming up with a revision they both liked.

However, in the DPR sessions, digital texts were shared only once, from beginning to end without stopping, and so this kind of repetitive play as part of the interpretation or revision wasn't possible. Given how much of the work of the PPR sessions occurred in these moments of textual repetition, I believe authors of and responders to digital texts could benefit from the opportunity to review an entire digital text—or revisit certain parts of it—repeatedly, both before and while responding to the text.

2. Control of playback that lies with the responder

I do not doubt that there is value in giving responders the opportunity to view (or read) a text in its entirety before they offer feedback—such a practice ideally allows responders to form an understanding of the text as a complete argument, and to offer the writer feedback about the overall impact or message of the text. This is, in fact, one of the reasons that the MSU Writing Center's peer response framework asks writers to read through their text from start to finish without stopping for comment. However, responders in the PPR sessions frequently interrupted the reading of the text to offer feedback, and the comments they offered during those interruptions were, for the most

part, received positively by the authors. Despite possibly interrupting the responder's ability to see the text as a whole, the practice of offering comments as soon as they occurred to the responder seemed to result in productive discussion about the text in question, and this cannot—and should not—be discounted.

Therefore, I suggest that for at least one of the possibly multiple viewings of digital texts within DPR sessions, the response session should be structured so as to enable responders to navigate throughout the text in whatever direction they choose, and to stop playback, if they choose, in order to make comments, indicate concerns, or ask questions. This would most easily be accomplished by having students share their digital texts on individual laptops instead of classroom projection screens, and giving responders control of the mouse and/or keyboard for one playback of the text. Such an opportunity would not only allow responders to replay troublesome or confusing sections and/or address aspects of the text in any order, but would also facilitate the recommendation I address in the next section: enabling effective commenting while the text is being played, in addition to afterwards.

3. Ability to comment during initial or early text experience

The idea that there can be value in soliciting feedback *while* a user experiences a text instead of *after* is the foundation of the "thinking aloud method," developed for cognitive interviewing and frequently used in usability testing. In this method, participants provide a running commentary of their thought processes by thinking aloud as they engage in whatever activities required of them by the usability test. By creating an environment in which users are able—and encouraged—to vocalize their reactions,

questions, and intentions as they interact with the text or interface being tested, usability researchers can come to a better understanding not only of the needs and expectations of potential users, but also of how the text in question does or does not meet those needs (Rubin 1994; Rubin and Chisnell 2008).

Introducing aspects of think-aloud usability testing into peer response would free up responders to address concerns or questions during their initial experience of a digital text without stopping or slowing the playback of the text itself, and these comments could then be revisited and discussed in greater detail after the playback has completed.

One possible solution to the additional time that would be taken up by multiple viewings could be for students to exchange texts with peers and conduct the "think aloud" sessions simultaneously, recording each responder's (or response group's) out-loud reaction to a text as an audio track that the author could then listen to—multiple times, if necessary— while reviewing and revising their own digital text. Such a response technique would likely take some practice, as well as guidance from an instructor, since usability testers engaging in think-aloud testing frequently have to remind users to vocalize their responses (Rubin 1994).

4. Acquisition of "Revision and responding vocabulary" for digital texts

As mentioned earlier in this chapter, one possible contributing factor for students' failure to address the surface-level issues in their peers' digital texts is a lack of the vocabulary and/or understandings required to do so. Though the language and concepts used to describe the more global Higher Order Concerns can be applied to both print-based paper and digital texts (i.e., organization, audience awareness, thesis argument), the

Lower Order Concerns of digital texts (e.g., timing, audio levels, speed, focus, transition from image to image) don't lend themselves so easily to being understood in non-digital terms. This might have contributed to the failure in the sessions I observed of responders to address these more surface-level issues.

While I have found the concepts of Higher Order and Lower Order Concerns useful in my own teaching and writing center work, I don't insist that use of these terms would be necessary for successful peer response; however, *some* understanding of how to discuss and understand different aspects of digital texts and their composition is necessary for the peer response of those texts to be worthwhile. One approach to developing this understanding before response groups first meet could involve co-constructing a response sheet or rubric as part of the initial digital assignment explanation: guided by their instructor, students could collaboratively develop a catalog of textual features they deem important to an effective digital text, and could use that catalog as a guide both while composing and revising their own texts and while responding to their peers'.

Limitations of this research

This research has three possible limitations that are important to acknowledge: because this research was conducted in one classroom, the number of peer response groups available to be observed was relatively small, resulting in usable video- and audio-recordings of only four of the seven or eight groups on any given response day. Because of this limited sample size, I cannot—and do not—claim that my observations are representative of all first-year writing classrooms, or even of all sections of WRA 150

offered at Michigan State University in the semester during which I collected my data. However, it is my hope and my intention that those who teach or research in classrooms within similar contexts or with shared characteristics might be able to better understand their own situation through this in-depth examination of eight peer response groups within this classroom.

The second possible limitation is the degree to which the imposition of a specific peer response framework—and, more specifically, the disregarding of that framework at different points by both students and instructor—may have influenced my data and results. Much of the students' behavior was likely colored, if not entirely guided, by the peer response framework they were supposed to implement during their sessions, even when they deviated from that framework, as they frequently did. Those classrooms in which instructors manage to enforce a strict adherence to a specific peer response framework will likely encounter different outcomes. However, it should be noted that my results indicate that such framework enforcement is more difficult than it might seem, and, given the number of participants in my research who reported development of detailed revision plans after peer response sessions, perhaps even counter-productive. (The use of whole-class response for the DPR sessions, while a significant difference between the two types of sessions, seems less likely to pose a significant limitation to the research, as students discussed their feedback in small-group settings first, and with few exceptions repeated their small-group responses in the whole-class discussion with little or no variation.)

The third limitation is grounded in my own experience as a writing teacher and writing center tutor. I, as have many current first-year-writing students, have come to

understand and define digital writing in the context of its differences from and similarities to non-digital writing, and this has without question influenced how I approached this research. While I attempted to be aware of and account for this bias in designing and implementing my study, I am aware that a researcher whose career started with digital composition rather than its non-digital counterpart would not have seen peer response of non-digital texts as a norm to which DPR should be compared, and might perhaps have approached the entire project differently. Given that my focus was peer response in the first-year writing classroom, and that, in that space, non-digital texts are still far more common than digital, I don't believe that my inclination to see peer response of non-digital texts as the norm can be considered an unreasonable bias. I would, however, be very interested to read the results of a similar study done from a perspective that wasn't influenced by my years of experience with peer response of print-based paper texts.

Suggestions for future research

If we are to understand more completely the ways in which peer response can and should be used with digital texts, additional research into peer response of digital writing—and, perhaps, peer response in general—is needed.

The practice of peer response would particularly benefit from research that seeks to analyze the feedback offered and texts discussed in PPR and DPR sessions in order to determine whether differences in types of feedback translate to differences in *usefulness* of feedback, i.e., whether the kinds of feedback offered in PPR or DPR sessions are more likely to result in more effective revision to the texts in question. Such a study would

involve analysis not only of session transcripts, but also of rough and final drafts of student work, and would perhaps require making a distinction between effective revision as defined by the student as author and as defined by the instructor as evaluator.

Those who seek to better understand peer response might also consider research that examines how and why writers become comfortable enough to use their own experience as a model within peer response sessions, and whether such modeling actually serves a useful purpose, either by providing information about composing or revision strategies, or by establishing or strengthening the rapport between response group members.

Additionally, research should be done that engages in more in-depth analysis of the discourse within PPR and DPR sessions and examines length of utterance, conversational turns, and pauses, in order to determine whether the amount of time spent discussing a particular textual aspect or question has any correlation to the plan for revision, if any, that eventually arises from the discussion, and to examine whether there is a difference in the amount of time response groups spend on discussion of different textual features in DPR and PPR sessions.

Finally, research should be undertaken to examine the impact of imposed response frameworks on response sessions, and whether better results (e.g., more positive experiences reported from writers and responders, or more effective revision as a result) are obtained from the use of a framework. This research would be difficult to undertake, since there is no one accepted peer response framework and since, as I've mentioned previously, enforcing a response framework is extremely difficult. However, studies could be done comparing sessions in which existing response frameworks are rigidly

enforced with sessions in which frameworks are used only as suggestions, or are not introduced at all. Such a study might help to determine at what point a peer response framework might become so restrictive as to hamper the discussion it is meant to facilitate.

Conclusion

In Chapter 2, I discussed the parallel themes of justification that weave their way through the literatures of peer response and digital composition in writing classrooms; I called attention to the laudable goals often cited in support of each, and I stated my still-held belief that neither practice is likely to be abandoned for the other, despite any challenges that might arise through their simultaneous adoption. Through this dissertation research, I have sought to uncover what happens when those parallel conversations merge, to learn whether the peer response of students' digital texts could be comparable to that of non-digital texts, and through that to examine whether peer response of digital texts could be a helpful approach for student writers, or one whose inherent conflicts render it useless.

The answer, at least that indicated by my results, seems to lie somewhere in between. While peer response appears to have the potential to benefit digital writers in the revision of their texts, the simple application of existing peer response frameworks, developed for use with non-digital texts, isn't likely to provide student writers with feedback as useful as that received during peer response sessions revised or redesigned with digital texts in mind. Though this research may—and, I hope, will—serve as a starting point for the development of these new approaches to peer response, more

research will be necessary in order to better understand the ways in which the opportunity for in-class peer response could benefit students composing texts in and for digital media.

APPENDIX A: PRE- PEER RESPONSE SURVEY QUESTIONNAIRE

1. Not counting this semester, have you ever participated in an in-class peer response* group before? *(*Peer response can be known by many different names (peer review, writing group, response group, etc.), but generally refers to the practice of receiving feedback on your writing from your classmates and offering feedback to your classmates on their own writing projects.)*
2. (Please complete this sentence.) In the past, peer response groups in my classes have been mostly:
    a. Extremely helpful in making major revisions and/or large-scale improvements to my writing.
    b. Mostly helpful in making major revisions and/or large-scale improvements to my writing.
    c. Mostly unhelpful in making major revisions and/or large-scale improvements to my writing.
    d. Extremely unhelpful in making major revisions and/or large-scale improvements to my writing.
    e. I'm not sure if peer response groups have been helpful or unhelpful to my writing.
3. (Complete this sentence.) In the past, peer review groups in my classes have been mostly:
    a. Extremely helpful in assisting me to identify and/or correct surface-level errors, such as errors in spelling, punctuation, or grammar.
    b. Mostly helpful in assisting me to identify and/or correct surface-level errors, such as errors in spelling, punctuation, or grammar.
    c. Mostly unhelpful in assisting me to identify and/or correct surface-level errors, such as errors in spelling, punctuation, or grammar.
    d. Extremely unhelpful in assisting me to identify and/or correct surface-level errors, such as errors in spelling, punctuation, or grammar.
    e. I'm not sure if peer response groups have been helpful or unhelpful to my writing.
4. I have found peer review most useful in helping me to (select all that apply):
    a. Develop a thesis statement
    b. Develop good transitions between paragraphs
    c. Improve organization
    d. Understand the assignment better
    e. Come up with topics for my writing
    f. Correct spelling and punctuation errors
    g. Other (please specify)
    h. None of the above
5. Think back to the peer response experience that was most helpful to you. What made this experience so helpful? (Please be as specific as possible.)
6. Think back to the peer response experience that was least helpful to you. What made this experience so unhelpful? (Please be as specific as possible.)

APPENDIX B: POST-SESSION SURVEY QUESTIONNAIRE

1. Who else was in your peer response group today?
2. In one sentence, describe the project you shared with the group:
3. What was/were your main concern(s) about the writing you shared with your response group?
4. What was/were the main comment(s) that your response group members made about your writing project?
5. What revisions, if any, have you decided to make to your project because of this response group meeting?

APPENDIX C: PEER RESPONSE WORKSHEET, THE WRITING CENTER AT MICHIGAN STATE UNIVERSITY

Peer Response Worksheet

Introductions *Who are the members of the group?*	1) 2) 3) 4)
MAPS *What do your peers need from you in order to provide you with effective feedback?*	**Mode: WHAT kind** of writing is this and what ***expectations*** does the mode of this piece of writing create? **Audience: WHO** will read the writing and what will this audience expect in terms of language, content, etc.? (Affects tone) **Purpose: WHAT EFFECT(S)** do you want the writing to have and how do you envision that the writing will accomplish this purpose? **Situation: HOW** will you do the writing? ***Of the writing:*** What are the external constraints on this piece of writing? ***Of the writer:*** What are your preferences re: the piece of writing and the writing process?
Three Priorities *What are the top 3 things you would like for the group to address regarding this piece of writing?*	1) 2) 3)
Ideal Editor *What kind of feedback do you need from your peers about the concerns you have identified?*	
Read Aloud	Author reads paper aloud, peers make notes as they listen

Peer Response Worksheet

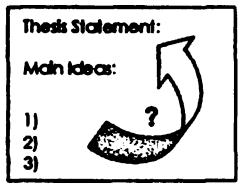
Peer Response

How can you ensure that your peer response sessions are effective?

Peers discuss paper, author remains silent

STRENGTHS of the paper include . . .

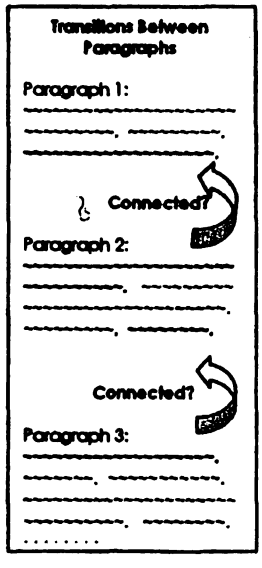
SUGGESTIONS (Consensus among group members is not necessary)



- **Thesis Statement:** *Can you paraphrase what the paper is about?*
- **Ideas:** *Can you identify the main ideas of this paper? Do all the main ideas in the paper seem directly related to the thesis statement? (Summarize the topic sentence of each paragraph as a key word. Could the key words serve as a quick outline of your paper? If not, you might need to reorganize your paper.)*
- **Content:** *Does the paper accomplish its stated purpose for its intended audience? Does the paper adequately address the requirements of the assignment?*
- **Organization:**

  In the paper *- Does the sequence of the paragraphs make sense?*

  In each paragraph *- If you were to phrase the topic sentence of each paragraph as a question, do the remaining sentences in the paragraph seem to "answer" that question and are they organized in a logical order?*



- **Flow & Transitions:**

  Between paragraphs *– Does the last sentence of Paragraph 1 seem connected to the first sentence of Paragraph 2? Does the last sentence of Paragraph 2 seem connected to the first sentence of Paragraph 3? Etc.*

  From thought to thought *– Does the writer use transitional phrases (such as additionally, afterward, as a result, by contrast, consequently, conversely, hence, however, in addition to, instead, therefore, thus) to help the reader see how various thoughts are connected or related to one another?*

- **Sentence Fluency:** *Does the writer vary the length, language, and structural patterns of the sentences s/he uses? (Hint: Upload a section of the paper to for a free, comprehensive analysis!) Would dividing longer sentences into 2 shorter ones, or combining shorter sentences into longer ones help?*

SPECIFIC STRATEGIES for addressing weaknesses . . .

Conclusion

What else does the author need to continue the work?

- Author joins the conversation & asks questions
- Author ultimately "owns" the paper

APPENDIX D: ASSIGNMENT DESCRIPTION FOR PRINT-TEXT WRITING ASSIGNMENT

Project #3: Exploratory/Argumentative Research Project
Rough Drafts Due: 3/20/08
Final Drafts Due: 3/25/08

How long should the paper be and how should it look when I turn it in?

- Your paper needs to be 6-8 pages (1500-2000 words) in length, typed, consistent with MLA formatting and documentation guidelines (both internal citations and a Works Cited page), and printed in 12 point-Times New Roman font.
- You need to consult at least 5 scholarly sources. One can include primary research (research you've conducted) and one can be from an interview with someone.

What do I have to do for this project? What's the point of it?

Your job for this assignment is to conduct research and write a paper about the various perspectives and issues surrounding a contemporary issue concerning American culture. Your topic should be arguable in nature—that is, "It should address a problem or which no easily acceptable solution exists or ask a question to which no absolute answer exists" (The Everyday Writer). The purpose of this paper is to *help you learn new things and see unfamiliar perspectives.* The point of the paper is to present your research and *tell the story of what you've learned through your research.* **You aren't just presenting both sides of an argument—you're showing what's complicated about the issue and why it can't be represented in just "two sides."**

For this assignment, I want to see your journey as a student and researcher in this process. You will not simply chose one side of an argument and defend it. Instead, you will begin by telling me/your audience why you chose the topic you did, what your initial opinion of the topic was, and how that changed throughout your research. Your final paper should reflect a process or progression of sorts; it should reflect on how you starting at one place/stance on an issue and ending up somewhere else. Is it possible that your opinion won't change after you finish your research? Sure, but I want to know what challenged your stance along the way, what you thought about it, and why it is important.

My objective in having you approach the research paper in this way is give you experience doing research to explore a topic, to identify ways of looking at an issue, and to give you practice organizing information from sources.

Ideas and suggestions for getting started

Probably the best way to choose a topic for this project is to think about what issue interests or affects you the most—something you have particular experience with, prior knowledge of, or strong feelings about. Expect to BEGIN with an "opinion," and end with a more informed perspective on the issue.
1. Read this assignment description VERY CAREFULLY. Read it again. Then read it again. Take notes on what you don't understand. Ask questions.
2. Once you're sure you understand what this project is asking you to do, **choose a topic.** Here are some ways to choose a topic that connects to your own experiences and interests:

- Look again at what you wrote about in Project # 1 or Project # 2, and use an issue in that paper as a starting point for this project.
- You could use class readings and conversations to take you in a new direction.

3. After you decide on a topic, you'll need to identify **a research question** to focus and guide your research. Some examples of research questions might be:

- How are gender roles prescribed in this culture harmful to women? To men?
- How does American culture idealize love? Romance?
- How does race intersect with cultural prescriptions of beauty and success?
- How does sexual orientation intersect with dominant culture?

What you learn about answers to your question will later become the thesis of your paper.

4. Once you have a research question, you're ready to **begin looking for sources** that can help you find answers to your question. You'll look for relevant sources in your reader, online, in library magazines and journals, and among people you know.

5. Once you've gathered your sources, you'll **take notes** on them. If you're using print or online sources, you'll **summarize** their arguments and take notes on any passages you want to quote in your paper. If you're using a human source, you'll interview him or her and take notes on what you learn, again paying special attention to any quotable material.

6. AFTER you have collected your sources and taken good notes, you're ready to **begin writing**. Think about how your sources help you answer your research question, and **craft a thesis about what you learned** from them. Make sure you've summarized and quoted sources accurately and that you've documented them correctly. Think of a title that reflects or predicts your thesis.

7. Revise, proofread, edit.

What does a "good" paper look like?

A 'good' paper will do the following:

- Will introduce the research by giving background or motives for your research—why this issue; what did you think or know before you started?
- Will be exploratory in stance and tone – begin by telling me/your audience why you chose the topic you did, what your initial opinion of the topic was, and how that changed throughout your research.
- Will represent all perspectives and positions accurately and fairly
- Will summarize source material fully enough so that your reader understands it
- Will include well-chosen quotations from sources
- Will include enough of your own voice and language to show that you understand the issue and positions you're describing
- Will NOT be just a stack of summaries with no "voice" framing and integrating source material
- Will document all sources both internally and in a Works Cited page
- Will be effectively organized, so that each paragraph has an identifiable purpose and point
- Will have a conclusion that indicates why what you learned matters or could matter—to you, or to others
- MUST have a title--one that indicates both the subject of your analysis and your position on it
- Will be carefully proofread and edited.
- MUST be at least 1500 words long.

Appendix E: Grading Rubric for Print-Text Assignment

Project #3 Grading Rubric		Yes	Kinda	No
Basic Requirements 15%	MLA (in-text, Works Cited)			
	6-8 pages, Times New Roman, 12 pt font,			
	5 sources, 2000 or newer?			
	Title			
	Arguable topic?			
	Grammar, mechanics, "correctness"			
Research 30%	Research: Do you include evidence and facts relevant to paper? Are they on topic?			
	Do you include an appropriate amount of citation (no specific number, but 2 citations/page as guideline). Also, do you include information about the credibility of author and cited information?			
	Explain quoted information: sometimes quotes are complex, so you need to "unpack" them			
Content/Structure 35%	Do you present all perspectives on your argument?			
	Reflection: Answer the question, "Why did you choose your topic? How has opinion changed?" In other words, reflect on what you learned. Use words like "I" and "me."			
	Is there a thesis? Is it appropriately placed?			
	Conclusion: restate thesis, wrap up paper, no new information			
	Structure: Is your set up suitable for this paper?			
Voice 20%	Ethos: Do you show that you know something about your topic and let the reader know something about you? (this could connect to culture)			
	Define specialized terminology/vocabulary (something that not many people know about, this could be jargon)			

APPENDIX F: ASSIGNMENT DESCRIPTION FOR DIGITAL WRITING ASSIGNMENT

Project #4: Digital Story/Movie

INTRODUCTION

Purpose:

For Project #4 you will design and create a digital story/movie using iMovie (Macintosh). The purpose of this project is to continue our conversation about argument by putting into practice the rhetorical skills you've developed while writing your research paper. Basically, you will be repurposing Project #3 using MAPS as a guide to determine the best mode, audience, purpose, and situation for Project #4. You will also put into practice what you have learned from Project #3 about pathos, logos, and ethos, while constructing your project.

Objectives:

- To expand our definition of writing to include digital technologies
- To learn how to use digital tools effectively in the composition process
- To work collaboratively in a digital environment
- To strengthen our rhetorical skills both digitally and visually
- To recognize how the rhetorical situation (MAPS) changes as writers repurpose their print texts for a digital environment.

To accomplish these objectives, you will be making movies using a digital video camera (to be checked out at the WRAC office, 235 Bessey Hall) and iMovie. You will have the opportunity to work collaboratively on this project (although it is not required, it is strongly encouraged) to form an argument using the genre that is most appropriate for your audience. Your group will need to carefully consider how your print essay will help you create a movie.

GETTING STARTED

Although we will all be using iMovie for this project, **you** will choose the genre most appropriate for your topic. Additionally, you will need to address concerns or limitations that may interfere with your project.

Possible Genres:

- Public Service Announcement
- Documentary
- Television Advertisement
- Music Video
- Movie Trailer
- Political Ad Campaign

Critical aspects to consider:

- Detail the needs of the project: locations for video, travel, interviews, etc.
- Discuss the limitations of the project: how will the length of this project dictate what you can do?

REQUIREMENTS

Part 1: Proposal and Storyboard

Due Date: Tuesday, April 8th/Thursday, April 10th (due during conferences)
Point Value: 20 points
Length: will vary

To complete Part 1, you will need to include **two** important steps: 1) write a proposal, and 2) sketch a storyboard. Together, these two steps will help you organize and sequence your project. Basically, you are telling me "Here's what I want to do, and this is how I will do it."

Proposal: This is a 1-2 page *written* document describing how you will repurpose your research paper (Project #3) using MAPS. Each of these aspects (mode, audience, purpose, and situation) are closely related and must often be considered simultaneously. Additionally, you may need to revise your MAPS many times in order to effectively address each aspect.

Carefully, THINK THIS THROUGH:

- Mode (genre): Film (or movie) is a very large genre; it contains many subgenres within it (e.g. public service announcements (PSA), documentaries, music videos, advertisements, and movie trailers, etc.). You will have to determine what kind of film you want to produce and what characteristics define that genre. Additionally, which type of movie will be the most effective for your purpose? What expectations does it create for your audience? Who will view the project and what will they expect in terms of delivery, language, content, etc.

- Audience: The research that you've done for Project #3 concerns a specific language and/or literacy issue and pertains to a specific community. Who would

benefit from the information and knowledge you've gained? Who can you reach out to with your movie? Is your audience the same as Project #3 or is it much larger?

- Purpose: What do you hope to accomplish in your movie? Will you carry over the same argument that you made in Project #3, or will your movie **do** something different? Do you hope to convince your audience of something or would it be more useful to inform them of your issue?
- Situation: How has your situation as a writer changed? How is the situation of this project different from the others we've done for this class? For example, how will you use your skills as a writer to complete this project? How will collaboration be similar to or different from Project #3?

Storyboard: This is a *visual* document in which you will sketch out how you plan to implement your ideas from above. Your storyboard should establish a sense of what your movie might look like scene by scene. To complete your storyboard, you will use the "storyboarding template" available in Angel.

Carefully, THINK THIS THROUGH:

- Consider textual elements – phrases, words, quotes passages that you may want to embed in your project
- Consider visual elements – images, including digital video and/or stills, clipart, etc.
- Consider audio elements – music, voice recordings, sounds
- Consider motion elements – transitions, animations across pieces of the movie.

Part 2: Peer Review

Due Date: Tuesday, April 15th/Thursday, April 17th
Point Value: 30 points
Length: 2 minutes

Peer review will be held on two different days and you will need to bring at least two minutes of movie to show during class.

Part 3: Completed Video

Due Date: Tuesday, April 22nd
Point Value: 100 points
Length: 3-5 minutes

Completed videos must be burned to a disk and uploaded to Angel to receive credit. Additionally, your finished movie will include the following:

- textual elements – phrases, words, quotes passages that you may want to embed in your project
- visual elements – images, including digital video and/or stills, clipart, etc.

- audio elements – music, voice recordings, sounds. (we will discuss issues pertaining to using music protected by copyright and how to find and/or create music that you can use without first obtaining permission).
- motion elements – transitions, animations across pieces of the movie.
- credits – appropriate citation of your sources

Part 4: Reflection

Due Date: Tuesday, April 22nd
Point Value: 30 points
Length: 2-3 pages

You will write a reflection based on what you learned from working on this project. What did you learn about creating iMovies? What obstacles did you run into? What did you learn about collaboration in a large group? How has your definition of literacy changed?
You will receive a detailed assignment sheet prior to the due date and we will talk more about this reflection in class.

Project #3	**Point Value**
Part 1: Proposal & Storyboard	20 points
Part 2: Peer Review	30 points
Part 3: Completed Video	100 points
Part 4: Reflection	30 points

Total Points Possible: 180

OTHER IMPORTANT INFORMATION

Digital Video Cameras: You can check out cameras from the WRAC (Writing, Rhetoric, and American Cultures) Department in 235 Bessey Hall.

Other Online Resources:

- video technique:http://www.adobe.com/education/digkids/tips/index.html
- example music video: http://www.worldonfire.ca/
- http://www.youtube.com/watch?v=2pPCkhYMQgY
- public service announcement: http://www.easehistory.org/index2.html

APPENDIX G: CATEGORIES OF RESPONSE FROM SIMMONS (2003)

Table 1
Types of peer response observed

Type of response	Definition	Example
Global praise	Intended to make the writer feel good about his or her work.	"Great paper" (no reasons given).
Personal response	Focuses on the psychological involvement of the writer as a person, not as a writer.	"You sound like a depressed kid."
Text playback	Focuses on the ideas or organization of the text.	"I think you have an excellent conclusion—it shows how you've changed and grown from your experiences."
Sentence edits	Focuses on one or more sentences or grammar.	"Run-on sentence."
Word edits	Focuses on the use of words or spelling.	"You seem to repeat 'family institution.' Maybe you should try an alternative phrase."
Reader's needs	Focuses on the needs or the reactions of the reader.	"This confuses the reader a little bit. At first glance I think that you are black, experiencing racism in that way."
Writer's strategies	Focuses on facilitating the writer's work by discussing the techniques that were used or could be used by the writer.	"In the fourth paragraph you get into the 'meat' of the experience. You might be able to increase the impact of this section by not using chronological order. (Maybe start with him getting fired, then tell the circumstances leading up to it.)"

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