

AN ABSTRACT OF THE THESIS OF

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Title: An Exploration of Scholarship on Peer Review in Composition Studies: Looking to the Future with Replicable, Aggregated, and Data-Supported Research Methodologies

Abstract approved:

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This thesis examines the nature of evidence in scholarship on peer review in composition studies. I argue that the nature of evidence present in scholarship on peer review over the past three decades is typically anecdotal, theoretical, and based on limited case studies. I argue that peer review research in the field of composition studies will benefit from interdisciplinary collaboration and replicable, aggregated, and data-supported (RAD) methodologies, as these types of collaborative approaches have already produced promising results and prepare the field for the future. One example of a product of these collaborative approaches, Eli Review, a web-based, peer review application, is already being used in first-year composition courses across the United States. This thesis explores Eli's use at one of these universities, Oregon State University, and suggests that Eli's aggregated data can be used by instructors and administrators for course and program assessment. As some composition studies scholars are skeptical of RAD methods, I call for collaboration with scholars engaged with Writing Across the Curriculum as a promising entry point for this type of research.

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An Exploration of Scholarship on Peer Review in Composition Studies: Looking to the
Future with Replicable, Aggregated, and Data-Supported Research Methodologies

by

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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Jacob E. Day, Author

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TABLE OF CONTENTS

	Page
Chapter 1: Introduction	1
Chapter 2: An Examination of the Evidence in Scholarship on Peer Review in Composition Studies.....	9
From Rome to Dartmouth: Historical Foundations of Peer Review before the 1980s.....	10
Case Studies and Theoretical Approaches: Peer Review in the 1980s.....	12
A Focus on Diversity and Technology: Peer Review in the 1990s.....	21
The Digital Age and Collaborative Research: Peer Review in the New Century.....	31
Chapter 3: Web-based Peer Review, Replicable, Aggregated, and Data-Supported Methodologies, and the Future of Research in Composition Studies.....	39
Interdisciplinary Collaboration: The Future of Composition Research.....	41
Productive Interdisciplinary Results: Eli Review	43
Eli at Oregon State University: A Case Study.....	47
Chapter 4: Conclusion.....	56
Bibliography.....	62

Chapter 1: Introduction

In the fall of 2013, I taught my first college composition course at Oregon State University. I was not a typical MA student in that I was already thirty years old and I had several years of prior teaching experience. Yet there were requirements of my teaching position of which I was still uncertain. One of these requirements, peer review, stood out to me. Peer review had been a part of many high school and undergraduate writing courses, but despite all of my prior experience, I was still uncertain of how to effectively teach this ubiquitous practice. I wanted to know more about peer review, so I began asking questions: what is peer review? Why do many instructors and scholars consider peer review an important part of writing? What are some of the benefits of peer review? What are some of the challenges?

To answer these questions, I looked into the history of peer review in composition studies. Peer review is generally defined as a type of collaborative learning in which writers meet to share and respond to each other's work. There is some debate among scholars as to why peer review became a staple of the composition classroom, but its prominence in the classroom parallels the emergence of process writing in 1970s. Process writing consists of many branches, including Cognitive Process Theory and Expressivism, but it is typically described as a form of writing that focuses on the process of composing, rather than on the final product alone. As composition instructors in American universities began focusing more on the stages of composing, the revision of drafts of writing became integral.

With the emergence of revision as a central part of the composing process, peer review surfaced as a primary tool for instructors and students. James Murphy, in his book

A Short History of Writing Instruction: from Ancient Greece to Modern America, writes that Collaborative Learning and similar Social Epistemic branches gained traction in the 1980s (274), ushering in a wave of scholarship and theories on peer review. Social Epistemic theories, Murphy writes, are rooted in an understanding that “we never know things in themselves, but only linguistic mediations which refract as much as they reflect...a system of differences which is formed not by individuals or even by the system as a whole but by interaction among people” (275). From this perspective, knowledge is communally formed and understood, not simply memorized, retained, and repeated back as some pedagogies have traditionally maintained. As such, peer review became even more important to some composition scholars as not only an important part of process writing but also as an integral component of generating knowledge and providing “an essential opportunity to practice becoming members of an intellectual, adult community” (Spear 15).

Peer review scholarship continued to develop in composition studies throughout the 1990s and 2000s, often mirroring the popular theories and areas of focus in the field. Peer review is now required in many first-year composition courses in United States postsecondary education. The WPA, or Council of Writing Program Administrators, explicitly centers first-year composition on process writing. The WPA does not specifically describe peer review as a part of the composing process, but many of the requirements of process writing are best satisfied through peer review. The July 07, 2014 edition of the “WPA Outcomes Statement for First-Year Composition,” which “describes the writing knowledge, practices, and attitudes that undergraduate students develop in first-year composition, which at most schools is a required general education course or sequence of courses” (1) states in the “Process” section: “by the end of first-year

composition, students should...experience the collaborative and social aspects of writing process...learn to give and to act on productive feedback to works in progress” (3). The WPA goes on to suggest that “faculty in all programs and departments can build on this preparation by helping students learn...to review work-in-progress for the purpose of developing ideas before surface level editing...to participate effectively in collaborative processes typical of their field” (3). As such, the WPA invites students to engage effectively in the revision stage of the composing process collaboratively with classmates.

In addition to being required and recommended by universities across the United States, peer review is frequently used as a component of process writing in composition courses because of its many perceived benefits. Peer review helps students gain confidence, perspective, and critical thinking skills by reading their peers’ texts (Nordquist). When students see the work of their peers and are asked to respond to it, they practice critical thinking skills, while at the same time gaining confidence in their own work and abilities and learning from the perspectives of their peers’ writing. Peer review also allows students to receive more feedback than if their instructor were the only one to read and respond to their work. In this way, instructors are alleviated from some of the time burdens of grading large quantities and multiple drafts of student writing. As non-expert readers, students can point out more obvious ways their peers’ texts are unclear and confusing, perhaps even more effectively than an expert reader focused on more challenging and complex issues associated with a text. Finally, peer review helps build a learning community in the classroom. Peers can bond and learn from each other through peer review, which can produce a more open and stimulating classroom environment (Nordquist).

Like any pedagogical practice, employing peer review includes challenges. Some of the more common issues associated with peer review concern the non-expert status of students. At times, students are unsure of their own abilities as readers and of the abilities of their peers. Students do not always trust that the feedback they are given is accurate and do not always feel confident what to look for in their peers' work. Consequently, the feedback provided from peer review can be too harsh, too complimentary, inaccurate, and generally poorly executed. In these cases, peer review is more of a hindrance than an asset in the classroom. Logically, then, it is crucial that peer review is taught with care and precision.

But knowing how to teach peer review is challenging. Scholars have pointed out that peer review can be a troubling and ambiguous practice. In their article "Whither 'Peer Review'? Terminology Matters for the Writing Classroom" Sonya L. Armstrong and Eric J. Paulson insist:

despite its widespread usage, however, [peer review] is one of the most diffuse, inconsistent, and ambiguous practices associated with writing instruction...with so much variation in organization and approach, it is clear that no community-wide, common understanding of what peer review is---or what it should accomplish---currently exists. (398)

Similar to my own experience teaching freshman composition for the first time, Armstrong and Paulson assert that too much variation in practice actually impedes proper execution of peer review in composition classrooms. What's more, Irvin Peckham recounted in his 1995 article "If it Ain't Broke, Why Fix It?: Disruptive and Constructive Computer-Mediated Response Group Practices" being asked by well known composition scholar Richard Fulkerson if there was any empirical data or research to support the use of peer review in the classroom. Peckham admitted, "the basic answer is, no. We have

testimonials and ethnographic studies, but they don't prove that peer response is more effective than other modes of instruction" (328). The apparent lack of proof supporting the use of specific peer review practices, and even the act as a whole stem from challenges with research in the field.

Gesa Kirsch and Patricia Sullivan, in their book *Methods and Methodology in Composition Research*, explain that the issues regarding composition research originate from a lack of cohesion among composition scholars. The authors suggest that scholars in our field do not have a common sense of purpose and focus, which has created "considerable disagreement about the methods we use to investigate" (1). Kirsch and Sullivan are not alone in their assessment that composition research is conflicted. The authors quote noted composition scholar Linda Flower, who states:

The sudden growth of research, scholarship, and new ideas, as well as the sometimes precipitous rush to polemic stands based on various moral, teacherly, or political imperatives, makes this a good time to reach for more analytical and balanced visions, for a greater sense of the conditional nature of our various perspectives.
(1-2)

Flower's assertion for composition scholars to be more analytical and balanced is her response to those who are divided about the ways in which composition research should be done. Some have even referred to this divide as a "war." This "war" consists of at least two sides: those who believe that research in the humanities should not mirror methods typically used in the hard or social sciences, and those who believe methods that produce empirical data are most convincing. There are certainly scholars who stand in both camps or want nothing to do with such divisions at all. But evidence of this division can be observed in composition scholarship, and even more specifically in peer review scholarship. Unfortunately, one of the products of this "considerable disagreement about

the methods we use to investigate” (Kirsch and Sullivan 1) in peer review scholarship is the lack of consensus on exactly what the best practices for peer review are. There is little proof that one approach works better than another, which results in ambiguity for instructors. Evidence of the confusion and uncertainty related to peer review can be observed in the terms used to describe it in composition scholarship. Names and terms for this practice include: peer review, peer revision, peer assessment, peer criticism, peer critique, peer feedback, peer-to-peer learning, peer evaluation, feedback groups, writing groups, etc. For the purpose of simplicity and cohesion, and because this thesis looks at several decades of peer review scholarship in which its names have changed due to historical trends, this thesis uses these terms and names interchangeably.

My own research on peer review supports Kirsch, Sullivan, and Flower’s assertions about the state of composition scholarship. When I began my research, I wanted to know basic information about peer review, such as: why is peer review more effective than other forms of feedback? As this question implies, I assumed that the research had been done and that it was already generally agreed upon that peer review was one of the most effective ways to receive feedback. Instead, I found little evidence supporting my assumption. The research I found was largely anecdotal and theoretically based. I decided to ask different questions. The next question I believed could help me begin my research on peer review was: what are the most effective practices of peer review and why? Again, I found little evidence that one practice was better than another. Most of the evidence I found supporting individual practices were based on small case studies and teacher lore. Some of the articles I found did not offer any evidence at all, simply explaining what effective peer review might look like in a real classroom. Even though I was not finding the answers to the questions I was asking, I did find useful and

insightful information about peer review. Many of the articles provided examples of peer review activities that worked well in particular classrooms. Some articles developed complex theories, while others addressed race and ethnicity. It was clear that there was a lot of valuable research on peer review; I just needed to ask the right questions in order to find an academic conversation I wanted to participate in.

I also became interested in the web-based peer review technology, Eli Review, we were using in Oregon State's first year composition course. I began asking questions about how this technology was developed and how it assesses peer review practices differently than traditional forms of peer review. There was a lot more available evidence-based research on these types of technologies because they were developed in part by scholars from other disciplines. After reading articles on peer review from other disciplines, articles that had strong data-supported evidence, I realized the question I needed to ask about peer review scholarship in composition studies was: what is the nature of the evidence supporting these scholars' particular claims?

Stated more broadly, the purpose of this thesis is to identify and analyze the nature of evidence in scholarship on peer review within composition studies, including selected interdisciplinary research from fields like Education, Information Sciences, and Learning Technologies. It is not within the scope of this thesis to comprehensively investigate the entire breadth of scholarship published on peer review in composition studies. This study is based on selected scholarship primarily from composition journals. This study then transitions to interdisciplinary scholarship that was used to develop web-based peer review tools.

This thesis is divided into four chapters beginning with this introduction. In chapter 2, I investigate the nature of evidence presented in over three decades of selected peer review scholarship in composition studies. To better understand the complexity and development of peer review scholarship and practices, I approached the scholarship in chronological order; the second chapter is a review of literature presented by decade. This review of the literature presents a historical perspective of how peer review scholarship developed in composition studies and reveals scholarship trends in the discipline. These trends typically include theory, anecdote, teacher research, and case study-based evidence. As these types of evidence cannot typically be quantitatively proven effective because they are not produced from replicable research methodologies, I then explore peer review research in disciplines where replicable, aggregated, and data-supported evidence (RAD) is more commonly used.

In Chapter 3, I detail the need for interdisciplinary collaboration in peer review research. Several important peer review studies from other fields are reviewed, studies that have produced web-based peer review tools used in composition classrooms around the country. Oregon State University's use of one of these web-based applications, Eli Review, in the required first-year composition course is explored, as an example of technology's application to peer review in higher education. In the conclusion, I offer some basic pedagogical peer review conventions, a brief summary of my investigations and analyses, and a look at a potential future for peer review scholarship in composition.

Chapter 2: An Examination of the Evidence in Scholarship on Peer Review in Composition Studies

In 1995, Richard Fulkerson posed a seemingly simple question on a popular composition listserve: Is there any empirical data or research that supports the use of peer review in the classroom? In his article “If It Ain’t Broke, Why Fix It?: Disruptive and Constructive Computer- Mediated Response Group Practices” Irvin Peckham responded: “the basic answer is, no. We have testimonials and ethnographic studies, but they don’t prove that peer response is more effective than other modes of instruction” (328). This exchange reveals an important reality: there are specific types of evidence supporting specific peer review practices, but evidence-based, large-scale studies that support the effectiveness of peer review are largely absent from academic scholarship in composition studies. The question at hand, then, is: What is the nature of the evidence typically presented in composition scholarship on peer review?

The following review of literature will examine chronologically the evidence produced over the last three decades on peer review in prominent scholarly writing journals, such as *College English*, *Computers and Composition*, *TESOL*, *College Composition and Communication*, and *The English Journal*. Many of the articles appeared in *College Composition and Communication*, but articles from other journals were added to represent theory, research, and practices from a breadth of perspectives and focuses within the discipline of composition studies. There were also only a few books included that were determined to be of seminal importance. However, excluding many of the other available books, including textbooks, was an intentional choice, as journal articles are more concise and many influential peer review books were based

upon published articles. This review of literature is admittedly limited. Articles were chosen that represent common trends and practices of their time. Like Peckham, I observed little data-supported evidence in the reviewed articles that support or prove peer review to be more effective than other types of revision instruction and practice. Most of the evidence provided in these articles is theoretical, anecdotal, or produced from small case studies.

From Rome to Dartmouth: Historical Foundations of Peer Review before the 1980s

Despite what some may believe, peer assessment was not a direct product of the 1960s. Approximately two thousand years ago, in fact, Quintillian had his students critique each other, which is one of the first recorded incidences systematic peer-to-peer learning (I.1.23-25). In her book *Writing Groups*, Anne Ruggles Gere argues that more contemporary versions of peer review date back to the early 1700s. According to Gere, literary societies, such as Harvard's Spy Club, gathered together and helped each other revise their writing (11). In his article "Peer Assessment," Keith Topping explains that George Jardine of Glasgow University used peer assessment in the late 1700s (20). Gere also names various historical documents that outline peer revision activities in universities in the United States throughout the early and mid twentieth century (27). Irvin Peckham adds that "peer-response groups are about as old as our discipline. James Berlin pinned their origins back to 1919, when Vassar students read each other's essays. Berlin reported that the 'editorial group' was in fact a commonplace in 1920s progressive classrooms" (327). In Britain, Gere asserts, writing groups flourished until the 1950s, but they were still considered somewhat marginal "until a series of events pressured their diverse institutional and intellectual sources into a new configuration" (28). The 1966

Dartmouth Conference was one of these events. At this conference, many American instructors, who followed Yale's tripod of language model, encountered several British instructors "for whom student response was more important than close reading of literature, and process more significant than product in writing" (29). Gere recounts that after these interactions with British educators at the Dartmouth Conference, American educators began to emulate their student-centered, process oriented pedagogies (29). Gere is careful to note, however, that the Dartmouth Conference did not "cause writing groups to emerge" (30); it merely organized them and brought them to the forefront of American academia.

After the Dartmouth Conference, John Dixon and James Moffett influenced Jim Gray's Bay Area Writing Project, which maintained that "the only way to teach writing was by having students write to each other" (Peckham 328). Pamela Bedore and Brian O'Sullivan, in their 2011 article "Addressing Instructor Ambivalence about Peer Review and Self Assessment," also argue that collaborative assessment has been a "major element" of composition pedagogy since the mid 1960s, when compositionists such as Peter Elbow and James Moffett pushed for more decentered authority in the classroom upon their return from the Dartmouth Conference. Peter Elbow's *Writing without Teachers*, for example, which was published in 1972, announced a teaching strategy that focused on students and instructors writing together and producing "unfinished" work. In essence, Elbow was deemphasizing traditional product-oriented writing, which he believed impeded a student's best efforts. Elbow and his contemporaries would impact the way college composition was taught for decades to come, and their work is still lauded for its influence. In the 1980s, however, a more systematic version their

“Expressivist” composition began to develop. Process, not product, was still the emphasis of this new pedagogy, but it relied on more teachable rules and instruction.

This movement, or what is now called “Process Writing,” influenced many collaborative learning practices still used today in composition classrooms. Collaborative learning, pioneered by the likes of Kenneth Bruffee and John Trimbur, occurs when students or status equals collaborate on their work, which usually takes the place of top down, traditional style of classroom instruction. Collaborative Learning comes in many forms, but peer review is one of the more well known. Many scholars argue that Collaborative Learning was a natural product of the Expressivist and Process Writing movements because it acts as a way to decenter authority in the classroom. The history of peer review dates back to at least two thousand years ago, but it was not a serious focus of scholarship until the 1980s.

Case Studies and Theoretical Approaches: Peer Review in the 1980s

If composition in the 1980s could be broadly defined, much of that conversation would be accented by social and theoretical approaches to rhetoric. Reynolds et al. claim, “in the 1980s, composition scholars focused on the social nature of writing, building upon previous work in both basic writing and writing across the curriculum. Research into the cognitive process of writers also continued...” (10). The authors allude to two important theories that came out of the 1980s: Social Constructivism and Cognitive Process Theory. Scholarship in peer review benefited substantially from these theories, and perhaps one of the most influential theories relating to peer review stems from the roots of Social Constructivism: Collaborative Learning. Kenneth Bruffee, in

“Collaborative Learning and the ‘Conversation of Mankind,’” uses the work of Lev Vygotsky to develop a model of learning where learning occurs best among a “community of status equals” (639). From Bruffee’s perspective, hierarchical relationships and authority figures prevent this type of learning. For Bruffee and other proponents of Collaborative Learning, like Stanley Fish and Richard Rorty, the primary function of a teacher is to put “students in conversation among themselves at as many points . . . as possible” (642). Bruffee and his colleagues certainly continue to view the exigency of peer collaboration as a natural product of Social Constructivism. From their standpoint, Collaborative Learning decenters the authority in a given classroom, which enables students to learn more effectively. Bruffee, Fish, Rorty and others find utility in peer collaboration as an absolute necessity for the execution of their pedagogical methodology, yet some current scholarship views this branch of process writing as a historical product of the 1980s.

Because of its profound influence on later scholarship in peer review, it is important to note Bruffee primarily uses theory and case studies to establish his claims. Bruffee, at times, does provide personal experience and anecdotes to contextualize his theoretical foundations, but large-scale research aimed at producing empirical data are not included in this article. Lev Vygotsky, one of Bruffee’s primary influences, strongly believed that research should focus on individuals and should be depicted dramatically “in which impediments, struggle, and transformation are the central elements” (Newkirk 135). As such, Bruffee and other Social Constructivists may have adopted research approaches more akin to storytelling than scientific methodology. That is not to say the research that emerged during this time period is now ineffective or less valuable to study, but rather, the lack of a more scientific methodology reveals the beginning of a trend in

peer review research in composition studies, especially considering that many of the practices of peer response in first year composition classrooms still reflect the practices that emerged from Collaborative Learning pedagogy.

The Collaborative Learning movement is certainly one of the most important and influential in relation to peer review scholarship, but the work of Peter Elbow may even surpass it. By the early 1970s, Elbow had published *Writing Without Teachers*, which established Elbow as a spokesman for extra-instructional writing practices, and one of the most recognizable Expressivist figures of the time. *Writing Without Teachers* focused some on feedback models, but its primary focus was to help authors take control of their own writing, to become more self-sufficient (preface). *Writing without Teachers* was printed in several editions and could (and still can) be found in classrooms all over the country.

By 1981, Elbow had published another influential book, *Writing with Power*, which also sought to empower the writer instead of the traditional writing authority figure like a schoolteacher. *Writing with Power* is similar to *Writing without Teachers* in that it also teaches readers to play the “believing and doubting” game, to view a moving image of an author’s writing, and to imagine audience during the composition process (248-255). These two books were so popular that each would be published in several editions each over the decades, and they could be found in college classrooms all over the country. Elbow, in collaboration with Pat Belanoff, would write a formal textbook compiling his writing tips and suggestions. This textbook, *A Community of Writers*, was published in 1989 and focused a great deal on peer review. In fact, there was enough information in *A Community of Writers* detailing specific feedback models that the authors published a separate booklet outlining all of their feedback models. This booklet,

Sharing and Responding, also published in 1989, would become the handbook for many writing instructors who sought to more effectively teach Process Writing.

Elbow has been publishing work on peer review in peer-reviewed journals since his 1968 article “A Method for Teaching Writing,” where he introduces the idea of “Feedback Groups.” Many of the concepts he developed in these articles were later used in his books, but in his books Elbow often does not explain the reasoning behind his suggestions, or he uses small case studies and lore-based anecdotes as evidence. Elbow, as an advocate for extra-instructional writing practices, may have intentionally omitted such evidence to empower his audience. Regardless of Elbow’s intentions, instructors using these materials may have a difficult time locating or understanding the research behind Elbow’s claims.

Elbow and Belanoff’s *Sharing and Responding* contains straight-forward, step-by-step instructions on how writers can give and receive feedback and even give themselves feedback. *Sharing and Responding* is a practical guide for writers and instructors, but, like Elbow’s other books, it fails to give evidence and support for the effectiveness of its tips and suggestions, with the exception of periodic “process boxes,” which explain that the suggestions come from Elbow’s years of experience as a writer and instructor in the classroom. Years of classroom experience certainly count for something when formulating generalized peer review tips. But without the research or evidence available to support these practices, they cannot be substantiated.

In this booklet, Elbow and Belanoff once again emphasize the importance of writers being in control of their own writing (5). According to the authors, a crucial part of maintaining this control comes from directing the type of feedback a writer receives. Elbow and Belanoff explain that a writer can choose either familiar or unfamiliar

respondents, depending on the writer's level of comfort (5). This choice does not necessarily dictate the setting for a writer's feedback session, as small groups or one-on-one sessions are both acceptable, depending again on the writer's comfort level (2). The authors outline the many ways a writer can receive feedback, including sharing, descriptive responding, analytic responding, reader-based responding, and criterion-based responding (60-68). In the sharing model, writers simply read their work aloud to hear what their words sound like. The authors explain that this method is helpful when a writer does not have much time and that it can even be one of the most effective ways to improve a text (61). No evidence is included as to how the authors determine this model's effectiveness. Descriptive responding details a process where the writer asks respondents specific questions about their text as it is read aloud. In this model, the reader asks general questions, like "tell me how you feel as I read" (64). In the analytic response model, the author asks more specific questions, like "what are the assumptions in this text," and "what types of evidence and support do you hear in this text?" (65). The authors suggest that analytic responding can be effective for argumentative papers (2). In the reader-based responding model, the authors explain that reviewers are asked to interrupt the reader, as they feel necessary to ask questions about the text or when they hear things they like, find interesting, or feel confused (66).

Elbow's work is important to peer review scholarship for several reasons. Elbow's undeniable influence on peer review feedback practices is accented by his use of strong claims and easy-to-follow, practical models. And, unlike his previous books, Elbow does provide some explanation for his suggestions in *Sharing and Responding*. These explanations only describe his logic and reasoning from his own classroom experience and never mention case studies or data supported evidence. As one of the

most influential scholars of Process Writing and feedback models, Elbow's lack of supporting evidence may model in part the anecdotal and lore-based trends in peer review scholarship in the 1980s.

The 1980s was a time in composition studies when theoretically based pedagogical practices, like Collaborative Learning and Expressivist feedback models, were peaking. Some theories, however, were based in more scientific foundations, even if they were the exception to these theoretically based trends. One such exception, Cognitive theory, specifically influenced peer revision as researchers began looking at the process of assessment by collecting data and mapping the way the mind works. Linda Flower and her colleagues established the foundations of a cognitive model of peer revision in their 1986 article "Detection, Diagnosis, and the Strategies of Revision." Flower et al. confirm that revision is one of the most important aspects of Process theory, yet students rarely do it. In this article, Flowers, Hayes, Carey, Schriver, and Stratman draw on scientific research and their own study of a group of expert and novice revisers (the exact number of participants is not included in the article). There is still, of course, a theoretical foundation in this article, but most of the conclusions draw on the study these authors performed on a group of students. This study is unique, however, because it does not rely on limited in-class experiences or personal anecdotes. Rather, it relies on replicable, data-supported methodology. Flower et al. suggest that their research shows students typically do not revise because they do it poorly, which can make their papers worse. The authors wonder if this might be because "revision requires ability, not just motivation" (17). It might also be because "we haven't succeeded in making our generative version seem practical or operational enough to use" (17).

The authors begin by examining between expert and novice writers and how they approach revision. Novice writers approach revision as a way to detect local errors, while expert writers approach revision as a way of “discovering content, structure, and voice” (17). The expert revisers were able to use familiar language to help them make holistic revisions on their own writing. In this model of revision, the first step of the detecting process includes reviewing, with the sub-sections of evaluation and revising. Experienced writers in the study did a lot of evaluating during the revision process, which can lead to new possibilities—not just the detection of errors.

Diagnosis, the next step of this model, according to the authors, brings new information to the task. Detection looks like “I have to say this better,” while diagnosis looks like “those things aren’t parallel” (41). Also, the most important distinction between detection and diagnosis is that they can lead to different actions (42). Revision inherently is a process that relies on diagnosing problems. There are two strategies: detect/rewrite and diagnose/revise. Detect/rewrite allows one to make a straightforward, but relatively blind, leap into ill-defined problems. In the diagnose/revise strategy, diagnosing is the act of recognition and categorizing the problem one detects in the text. Diagnosis proved to be difficult for novices because they must be able to recognize patterns.

In this article, Flower et al. propose a heuristic for peer revision where “reviewers initiate the review process by representing peer writing. They read peer writing to understand it. They try to integrate successively encountered information from the text into a coherent and well-integrated (mental) representation” (32). Reviewers then use “meta-cognitive monitoring” to detect problems in the text. Flower and her colleagues found this process more effective than authors revising their own texts, because the study

showed that the authors' own memory would fill the gaps between what they actually wrote and what they thought they wrote. Another interesting note about this article is that scholars largely ignored it in the 1990s, as evidenced by the selected articles in the next section. Some developers working on peer revision technology did begin revisiting Flower et al.'s conclusions and their methodology in the 2000s because the study was replicable and data-supported, allowing scholars to perform similar studies with different subjects in different environments.

Flower and her colleagues' study is not necessarily typical of peer review scholarship in the 1980s, in that it is aggregated, replicable, and data-supported research which they used to develop Cognitive Process theory. But there were other composition scholars in 1980s who used similar case studies to answer specific questions about peer review, with Thomas Newkirk's 1984 article "Direction and Misdirection in Peer Response" as a good example. Newkirk was primarily concerned with the lack of evidence (by the mid 1980s) supporting the effectiveness of a peer audience. Newkirk laments: "despite the heavy emphasis on peer evaluation, there has been no systematic investigation of the responses of the peer audience" (301). To provide some "systematic evidence," Newkirk evaluated ten students—three at the top of their writing class, four in the middle, and three more at the bottom. Newkirk allowed each of these students to evaluate four papers with only himself and the student in the room. Each student was asked to spend as much time as they needed to do the evaluation, and then were asked to evaluate each paper on a scale of one to ten and to rank the four papers in relation to each other (one to four). The students were finally asked to give reasons for their rankings. The instructor of these students was asked to predict what ranking each of these students would give each paper (302).

Newkirk found from this case study that the reviewers ranked papers with topics closely related to student experience higher than papers they did not relate to (304). Newkirk concludes from these findings that “the sheer frequency of statements of this type suggest that this willingness to identify with the author is a powerful determiner of student response” (304). Newkirk also found that these student reviewers ranked papers containing a perceived element of originality higher (307). In both of the instances of relate-ability and originality, the students ranked the papers differently than the instructors had predicted. Newkirk sees the implications of this study as “suggest[ing] strongly that students and instructors in Freshman English at the University of New Hampshire frequently use different criteria and stances in judging student work” (309). Newkirk believes these findings “raise serious questions” about having students write for peers, because students and instructors may not have the same understanding of assignment criteria. In other words, peers writing for a peer audience may yield different results than students writing for an instructor audience. Newkirk, however, is not “arguing for the elimination of peer workshop” (310); rather, he is arguing for a focus on student writing assignment criteria that focus instead on writing for an academic audience.

Newkirk’s study is important in peer review scholarship of this time period because it represents a step away from the highly influential theoretically based articles, and asks the question: where is the evidence? Instead of simply critiquing composition scholarship for this lack of “systematic evidence,” Newkirk attempts to provide it. Newkirk’s evidence is compelling and raises interesting questions about peer review, but it also fails to utilize a large student sample size, which makes it difficult to generalize his findings. Case studies, like the one in Newkirk’s article, can be seen in composition

scholarship at times in the 1980s and more frequently in the 1990s, but these case studies, while important and insightful, are typically done with a small sample size, with few activities and assignments, and during only one session. With these limitations, it is hard to generalize and apply their findings outside of the study itself. In fact, some years later in a chapter he wrote on case studies for the book *Methods and Methodologies in Composition Research*, Newkirk himself would lament his use of limited subject case studies in his own research:

I asked myself why I wrote this lame attempt to make this one account, by some circuitous route, representative of freshman writers...it may have been my own way of justifying the value of case study research, and doing it the only way I knew how: by claiming that we can move (somehow) from a single case to a whole population. (130)

Newkirk's realization that even his own case studies are often too limiting in nature to apply their findings to whole populations reveals the limitations of case studies, lore, and anecdote in general because they all rely on factors restricted to individual situations. In this way, the findings of this type of research cannot be substantiated, rendering the results applicable only to the study itself. Many scholars would continue the trends of limited research methodologies into the 1990s.

A Focus on Diversity and Technology: Peer Review in the 1990s

In the 1990s, a focus on theory and practice in peer review scholarship shifted along with many aspects of composition and rhetorical studies. These major shifts are often credited to “a time of stock-taking in the discipline” (Reynolds et al. 11-13), a re-assessment of sorts that may have motivated scholarship devoted to diversity. Scholars such as Lisa Delpit found that process pedagogy, for example, restricted minority

students (Reynolds et al.13). In response, the field began publishing theories on social construction, discourse communities, and contact zones. The theories focus primarily on including all demographics in the learning process in academia (14). In peer review, scholars such as Karen Johnson and Cassie Medoca shifted their focus to the inclusion of ESL students. Gesa Kirsch, among others, shifted her focus to social class and the potential for exclusion in peer review practices due to factors that develop from class division. As composition studies continued to focus on diversity and inclusion, technology also became a serious point of interaction. As Reynolds et al. explain, “Still intrigued by the new frontiers of networking and hypertext and other online writing technologies, compositionists continued to explore these regions for their pedagogical implications” (15). With the rise in use of technology in the classroom, skeptics began to question whether some students were being excluded from learning in the classroom. Peer review techniques that incorporated the exchange of digital documents without physical interaction were specifically targeted because of the potential for cultural and social misunderstandings.

On a more specific note, one of the more noticeable trends in peer review scholarship was a focus on classroom techniques, which saw somewhat of a distance from the more theoretical foundations laid for peer revision in the 1980s. Some of the methods used in this type of scholarship are categorized as “Teacher Research.” Teacher Research is more nuanced than teacher observations, like Elbow’s research, in that it includes detailed classroom contexts and dynamic sociocultural contexts (Smagorinsky 109). Teacher researchers use specific classroom situations to explore their hypotheses, and then typically describe and analyze them in scholarship, books, or in virtual forums.

Teacher research flourished in the 1990s. One example is Gloria Neubert and Sally McNelis' "Peer Response: Teaching Specific Revision Suggestions." The authors describe here a PQP (Praise-Question-Polish) technique. This technique asks students to read their papers out loud to their peer groups, while the listeners read along. After the group finishes reading and listening, each group member praises something they liked in the piece, questions something they don't understand or are confused about, and then suggest specific areas for improvement (52). This activity works best, according to the authors, if it is taught by role-playing (53). Through the use of PQP, 28% of the students involved gave "specific" comments, 53% gave "general but useful" comments, and 19% gave vague comments (54). The authors then implemented a series of small-group, large-group, and independent activities with periodic follow-up activities (54). In these activities, students were taught specifically how to give more effective revision comments. Some of these activities included students looking at comments the instructors had defined as "vague" or "general." Then the students began picking out comments they felt were less effective (55). As a result, the authors found that students improved markedly in all categories: "specific" comments rose from 28% to 42%, "general but somewhat useful" comments went from 53% to 42%, and "vague" comments dropped from 19% to 14% (56). This study's aim was to learn how to more effectively teach middle school students how to do peer review, by using data collected from high school and college classrooms. The numbers seem to be convincing, yet they may be indicative of a trend in peer review scholarship in the 1990s: the research seems limited to one or just a few classrooms, (characteristic of teacher research), unspecified variables and number of participants, and occasionally differing settings and sometimes applying results from one age group to a completely different age group.

Following the atheoretical, rather ambiguous, limited studies that produced specific techniques of peer revision in the 1990s, another trend emerged: combining previous theoretical approaches of peer revision into a singular technique. In 1992, to give a specific example, Mara Holt authored “The Value of Written Peer Criticism.” Holt’s article takes specific practices established from theorists in the 1980s and her own classroom practices. Additionally, Holt synthesizes peer review practices of others and applies them to classroom situations and students. In other words, this is not a study of actual students from which evidence might be drawn. Rather, Holt offers an amalgamation of Elbow and Belanoff’s feedback models that “have a more developed social framework than their earlier manifestations” (384). Holt shows Elbow and Belanoff’s peer response exercises, and then adds Kenneth Bruffee’s peer critique exercise (386). Holt then combines all three approaches to make a new model. All of these approaches are outlined thoroughly and explained in detail. Holt even explains how her model can be modified to fit different classroom climates. Holt does explain how “students begin to see how the use of each kind of discourse can enable the other,” and “the student...finds her identity as a writer” (392), but there is no explanation of how Holt knows this will happen or even if it ever has happened in reality. Certainly, I am not suggesting that this type of scholarship is meritless, but it is a representative of an emerging trend of abstract, hypothetical contexts to support broad claims in this era.

Gesa Kirsch’s article “Writing up and down the Social Ladder: A Study of Experienced Writers Composing for Contrasting Audiences” attempts to show how social class affects peer responders, and provides evidence of the trend to focus on diversity and social demographics in this decade. This article does not study specific peer review

activities, but several peer review articles have cited it due to Kirsch's findings on the correlation of audience and perceived social status in feedback situations. According to Google Scholar, this study was cited by at least 14 scholars in the 1990s, several of which used it to structure specific in-class peer review activities. In her study, Kirsch observed five experienced writers writing for two different audiences: incoming freshman and a faculty committee. Kirsch does perform an actual study involving selected students, but only five writers were used, a sample size that, depending on how generalized her claims are intended to be, may be considered small. From this study, Kirsch concludes that two clear patterns emerge: writers analyzed the faculty audience less frequently than the freshman audience, but they analyzed the goals of the faculty more closely and frequently (41-43). Perhaps even more interestingly, Kirsch found that writers attributed the same characteristics to both audiences despite the difference in these audiences' social status within the university structure (44). In other words, knowledge of the social status of their audience influenced writers, but perhaps the overall outcome of their writing was affected less by social status than previously thought.

Kirsch didn't specifically test writers with specific activities of peer revision, but her study applies to peer revision in that writing for peer audiences and their particular perceived statuses within a classroom setting was of concern to instructors in the 1990s. This approach not only uses actual human subjects but also draws from the theoretical foundations laid in the 1980s by researchers like Kenneth Bruffee and other Social Constructionists. Kirsch's article represents a common trend in the 1990s to build peer review practices from theoretical approaches formed in the 1980s, and test them on small sample groups, usually only one time. This methodology raises more questions than it

answers because the nature of the evidence is more relevant to the unique circumstances of the study than to a generalized writing population.

Following Kirsch and Holt's focus on diversity studies in the 1990s, other composition scholars also focused on gender studies. In one interesting article by Mary Styslinger, which was published in *The English Journal* in an issue focusing on "generalizing the curriculum," called "Mars and Venus in My Classroom: Men Go to Their Caves and Women Talk during Peer Revision," the differences in how men and women act during peer revision are addressed. This small classroom study is based on Deborah Tannen's popular 1990s book *Men are from Mars and Women are from Venus*. Styslinger performed a study of 39 students in one classroom performing a typical (for her classroom) peer revision activity. As such, Styslinger's article can be categorized as Teacher Research in that she uses her own classroom and students during one session to make her claims. Styslinger concludes that peer review activities favor females. The author then calls for a heightened awareness of gender differences during peer review activities and more teacher accountability.

There are many articles and books from the 1990s addressing gender roles in peer review (see: Karyn Hollis's "Feminism in Writing Workshops: A New Pedagogy," Nancy McCracken's *Gender Issues in the Teaching of English*, or Mara Holt's aforementioned "The Value of Written Peer Criticism"), but Stylinger's article is particularly interesting to this review of literature in its basis in pop-culture sociology and use of a small-scale case study. In essence, Styslinger relies on one peer review session of almost 40 students to help "generalize the curriculum"—as the journal issue is aptly named, but she also relies on findings and studies that are based on non-academic

standards, namely a *New York Times* bestseller. Styslinger gives us an artifact full of insights on how she and her colleagues construct peer review activities. These activities are based not on the foundations of extensive research or academic theory but on the basis of her own classroom's perceived needs. This is not necessarily indicative of an error on the author's part, but perhaps more of a trend in this era to focus more on single sessions of small classes of students where peer review is performed, then observed from a narrow lens—in this case, a popular psychology book that is already dated.

These tendencies to focus on diversity in the classroom, especially during peer review activities, become even more apparent in the studies of ESL students in the classroom in the 1990s. Many articles and books focusing on ESL instruction for peer review in the composition classroom were published during this decade.¹ Cassie Mendonca and Karen Johnson's "Peer Review Negotiations: Revision Activities in ESL Writing Instruction," for instance, contains a case study and instructor suggestions, all of which make it a rich representation of evidence presented in peer review scholarship focused on diverse classroom situations in the 1990s.

The authors, in an attempt to support and broaden previous studies, performed a case study of 12 advanced ESL students. The authors placed these students in pairs—some with members of their own major and discipline, and some with differing majors and disciplines. The students were given 15 minutes to read their partner's drafts and 20-40 minutes to orally respond to each other under guided instructions from the instructor

¹ See for examples, Lynn Goldstein and Susan Conrad's "Student Input and Negotiation of Meaning in ESL Writing Conferences," John Hedgcock and Natalie Lefkowitz's "Collaborative Oral/Aural Revision in Foreign Language Writing Instruction," and K. Mangelsdorf's "Peer Reviews in the ESL Composition Classroom: What do the Students Think?"

(749). The authors then interviewed the students and analyzed the whole process, which was recorded. The authors also reviewed students' subsequent revisions. The authors found that 10% of the suggested revisions were not made at all (761); 37% of revisions made were not suggested in the recorded peer review session (762); 59% of revisions made came from pairs who were from different majors and disciplines (764); while only 48% of revisions suggested by partners from the same discipline were made (765). The authors used this data to determine that peer review encourages ESL students to think more than when they only receive feedback from their instructors (765). Consequently, the authors believe that teachers should "provide ESL students with opportunities to talk about their essays with peers" (766). The importance of this study, for the purposes of this review of literature, lies in its methodology. The authors utilize theory and data from previous decades to determine a perceived generalized problem--that of ESL students revising during peer review. The authors then perform a fairly limited case study of 12 students to make a more focused general suggestion about peer review in diverse classrooms. Mendonca and Johnson's article is also important for yet another reason. By emphasizing the importance of oral interaction during peer review, specifically in the case of L2 learners, the authors raise questions about another emerging peer review focus of scholarship in the 1990s: multi-modal digital peer review tools. It is clear that the 1990s saw immense digital innovation and expansion, so it is no surprise that education would begin utilizing those innovations more broadly in the classroom.

Peer review scholarship began, and in some cases continued, to mirror these trends. Scholars published articles and books such as Van DerGeest and Remmers' "The Computer as Means of Communication for Peer-Review Groups," Mabrito's "Electronic

Mail as a Vehicle for Peer Response: Conversations of High and Low Apprehensive Writers,” and Michael Marx’s “Distant Writers, Distant Critics, and Close Reading: Linking Composition Classes through a Peer-Critiquing Network.” As these articles’ titles suggest, it became evident to some composition scholars that technology could be used as a tool for peer revision.

An early adopter of what was considered “non-traditional” peer response techniques at the time, Irvin Peckham outlined several ways computers could be used in the classroom to facilitate peer revision. In his 1995 article “If It Ain’t Broke, Why Fix it?: Disruptive and Constructive Computer-Mediated Response Group Practices,” Peckham explains his long history with and early adoption of peer response groups. Peckham also explains how he was an early adopter of computer-assisted peer response groups in the composition classroom, but that his “naive, even careless,” foray into these computer-mediated practices was not smooth. Perhaps because peer response technology was new and somewhat untested in 1995, Peckham does not use a study to support his conclusions; he uses personal experiences and anecdotes. As such, his article acts as somewhat of a personal cautionary tale for instructors, but lacks in empirical data, which would make his claims easier to generalize.

To begin, Peckham outlines more than 15 reasons why traditional peer response is an effective tool in composition classrooms. These reasons include relieving paper burden, learning to hear and read texts, writing for someone other than instructors, and providing writing habits that can stay with students long after their education. Peckham also outlines a few best practices, or effective methods, of peer revision, such as reading papers aloud in small groups, giving the same paper to the entire class, and anonymously

exchanging papers with one other student (330). These simple strategies worked for the author for years, until he tried adding email peer response to the list.

Despite what research had indicated, Peckham found that computer-mediated (CM) peer response didn't seem to be effective, maybe even less effective, than non-computer mediated peer response (331). The trouble with CM peer response, according to Peckham, was that it included too many unfamiliar components that confused teacher and student alike. Issues in document type, program compatibility, and disk reading errors upset students and even impeded them from learning, which contradicted the whole point of doing peer response in the first place (335). Peckham insists, however, that with proper planning CM peer response can yield positive results. Some possible benefits of CM peer response, according to Peckham, include: exchanging papers with other classes or schools, helping students learn more about technology, using collaborative writing tools, facilitating cheaper distribution of texts, and easing students in to the future of education (334). Making sure that CM peer response yields positive results, the author asserts, depends on how an instructor answers the questions: "what am I trying to do", and "will CM peer response help me do it better" (337)? Peckham's article represents a time in composition and peer review scholarship when technology was new and fairly untested. His article also represents the reoccurring trend in composition scholarship to recommend generalized solutions to universal problems through small case studies and personal anecdotes. Peckham himself even admits to this in his article, explaining, "we have testimonials and ethnographic case studies...but no empirical research that support [peer review's] use" (328).

For peer review scholarship, the 1990s was a time of change and innovation. The trends of small sample sized case studies continued from the previous decade, but large theoretical claims and innovations tapered a bit. Other changes involved instructors and scholars working to include a wide range of individuals in peer review activities, such as minorities, women, and the international community. Peer review scholarship in the 1990s also reflected the growing integration of technology in the classroom. Computer mediated peer review practices began to be studied and used in the composition classroom, an important trend that influenced peer review scholarship in the next decade and beyond.

The Digital Age and Collaborative Research: Peer Review in the New Century

As the 21st century began, composition studies continued its focus on diversity and ethnographic inclusion in the classroom. In *The Bedford Bibliography of the Teaching of Composition*, Reynolds et al. explain:

Early in the new century, responses to diversity expanded to include more attention to disability studies, sexuality, and whiteness, all welcome complications to the categories of gender, race and class...Thus, contemporary scholars and researchers are constantly engaged in efforts to rewrite composition history, formulate new theoretical perspectives, and analyze and adapt new media and technologies. (16)

Evidence of this scholarly “response” to diversity and new media also appears in peer review scholarship, which continued to focus more on electronic media, as computer technology became more and more prevalent in the classroom and at home. There might be a connection between new media becoming a focus in peer review scholarship and research methodology in composition studies becoming more data-based, but the field

still chose not to produce large-scale studies from which evidence could effectively be generalized to the writing classroom.

One clear example of research directed at using new media to aid diverse classroom situations, yet still failing to execute large-scale studies, is Jun Liu and Randall Sadler's 2003 article "The Effect and Affect of Peer Review in Electronic Versus Traditional Modes of L2 Writing." Here, the authors describe the differences in electronic peer review and face-to-face peer review in L2 learners. The authors monitored 48 L2 learners aged 17-28 who used Microsoft Word to peer edit (198). The authors found that only using electronic means to peer review for L2 learners was not as effective as combining electronic and face-to-face peer revision. L2 learners learn more from nonverbal communication because it is "indispensable in intercultural communication in peer review settings" (222). The authors insist that although their study used a small sample group and therefore the results were not necessarily meant to be "generalized beyond the scope of this study" (223), the findings do suggest that more research and inquiry should be made on the subject. This report also serves as a representation of how small sample size case studies continued to dominate peer review scholarship, even as the 1990s ended and the new millennium began.

It can also be observed that innovations in new media combined aspects of the sciences and aspects of composition studies. Scholars who had previously focused on technological innovations were now publishing scholarship related to peer review and composition studies. This trend did not spontaneously begin in the new millennium. In fact, in the 1990s many articles on computer-mediated peer review cited articles published in scientific journals. Perhaps this merger of disciplines accounts for the

apparent rise in peer review scholarship containing more data-based research, even if the sample sizes of the research are typically too small to make generalized claims. There are many examples of peer review scholarship that merged the scientific and composition disciplines in the 2000s.

One such example of peer review scholarship that utilizes more scientific methods and technology is found in Paulson, Alexander, and Armstrong's 2007 article "Peer Review Re-Viewed: Investigating the Juxtaposition of Composition Students' Eye Movements and Peer-Review Processes." This article sheds light on this collaboration of disciplines in composition scholarship, and continues to represent the small sample size study trend. The sample size in this article is not necessarily an issue, however, because the authors use replicable, aggregated, and data-supported (RAD) methods to reach their conclusions. The sample size is less important in this study because its results can be substantiated with different subjects and with different environmental factors.

In their article, the authors explain that peer review is one of the most widely used practices in first-year composition classroom, yet there is little consistency in approach, and many instructors report that peer review falls flat in their classrooms (305-306). The authors suggest that peer review may not work if students point out less-significant aspects of student papers or rely on bad habits acquired from past peer review experience (306). In response to these apparent issues, the authors conducted a study of eye movement in peer reviewers to see what they focused on during the exercise. The study included 15 first year native English speaking students who were paid \$25 each to participate. The peer review sessions were done individually and lasted no more than an hour (315). The researchers used scientific eye-tracking technology to determine what

students focused on. After analyzing the participants' eye movements and their following comments, the authors found an unexpected mismatch between what peer reviewers focused on and what they commented on (317-319).

The authors found that participants fixated two thirds longer on errors or issues in the text than on content related to assignment goals and outcomes (322). Furthermore, the authors found that students were tentative about offering commentary, which suggests they frequently doubted their abilities to provide feedback (326). This self-doubt unfortunately resulted in a focus on surface-level errors, but it does provide evidence for the need to re-examine how peer review is taught and executed in the classroom. The most prominent suggestion for improvement by the authors is a rethinking of a global to local protocol. The authors explain that many instructors teach their students to think of the writing process as a linear model. The authors believe, however, that the writing process does not necessarily take this shape and instructors of peer review should be accepting of that (327). As a result of their findings, the authors suggest that instructors should be open to allowing first year peer review students to focus on surface-level errors first, if they wish, to give them confidence. The authors do not suggest that allowing students to focus on surface-level errors is more important than focusing on global errors. They even suggest that instructors continue to teach the importance of focusing on global issues. But the authors emphasize the importance of helping the novice peer reviewers gain confidence, which may be best achieved by allowing them to excel in areas that feel natural to them, such as focusing on local issues first (328).

Other than the obvious importance of this research, namely finding areas in which standard peer review practices may need to be rethought, this study provides

insight into the importance of the continuing peer review scholarship trends of the 2000s. Specifically, the blending of new media and scientific research in the humanities represented in this article illustrates large-scale changes in peer review instruction and execution that were less apparent in previous decades.

Many, if not all, of the articles chosen for this review of literature draw heavily on previous scholarship. Like the traditions of blues artists passing on their songs, it is considered an honor in academic scholarship to be cited by other academics. There is a certain prestige in passing on knowledge to others who may find it useful. Korey Lawson Ching's 2007 article "Peer Response in the Composition Classroom: An Alternative Genealogy" used archival research to survey the influences and roots of peer review scholarship. This article is different from the others presented in this review of literature, because it does not use theory or studies to recommend peer review practices. Instead, Ching focuses closely on and argues against the history of peer review presented in Gere's *Writing Groups*. One of Gere's main premises is that historically peer review emerged as a way to decenter authority in the classroom and to emphasize revision in the process of writing. Ching argues, however, that the history of peer review may take root from alternative influences. From Ching's perspective, peer response "emerged as a way for teachers to manage the exigencies of the writing classroom" (304). Ching also questions some aspects of the collaborative writing movement, in that the emphasis placed on this authority/autonomy binary contradicts the practice of collaborative writing in a classroom. Instead, Ching argues students learn by engaging in reading and writing alongside both peers and teachers. Ching suggests instructors lead conferences with groups of students, enabling students and teachers to encounter each other's discourse.

For Ching, reimagining the history of peer review is important because it can change the practice of peer review from the erasure of the instructor to a collaboration that “moves beyond the prevailing authority/autonomy binary” (305).

The past three or four decades of peer review scholarship reveal many positive things about the field of composition studies. Primarily, instructors and scholars are generally interested in better helping their students learn to write. A close look at peer review scholarship shows an innovative field ready to change and evolve as circumstances dictate and reflect themes in other aspects of composition studies research. Scholars and instructors want to do better, and they want their students to write better. Many of the articles chosen in this review of literature reflect that desire, as they theorize and study peer review practices. Many of these articles also provide specific examples of peer review practices to better equip instructors in the classroom.

The articles chosen for this review of literature also demonstrate that more thorough scientific studies are needed to aid and remedy the complicated and confusing state of peer review instruction and execution in first year composition, which would also help legitimize the field of composition studies. As noted earlier in this chapter, instructors and scholars have struggled with the ambiguity of peer review practices for decades. The nature of evidence typically presented in peer review articles bears a connection to this uncertainty, which in turn may support the stereotype that composition is less valued in English departments than other disciplines. Peter Smagorinsky, in his book *Research on Composition: Multiple Perspectives on Two Decades of Change*, quotes James Kinneavy’s famous statement that “composition is so clearly the stepchild of the English department that is not a legitimate area of concern in graduate studies” (1).

Kinneavy's statement is now several decades old, and composition has recently gained more credibility within English departments. But we still have a long way to go.

Smagorinsky writes that one of the reasons composition studies has been undervalued is because research on writing "has not frequently been conducted with the knowledge and care that one associates with the physical sciences" (1). One way to change the perception that composition studies is not a legitimate discipline is to begin conducting more research with scientific methodology.

There has never been a better time to begin implementing scientific methodology in our research, and it has never been more needed than now. We are better equipped to study, through the use of technology, the ways in which students actually execute the writing process. Even if peer review is simply an excellent way to save instructors time grading and responding to student writing, and I suggest that it can be more beneficial than that; it should be taught and performed in ways that help students attain the outcomes of composition courses. I have outlined several trends in peer review scholarship throughout this review of literature, such as theoretically based exercises, small sample group studies, and an attempt to address diversity through peer review. These studies have produced many beneficial practices, at least for the individuals involved in the studies.

Yet I'm compelled to address the question: what is the nature of the evidence in peer review scholarship? Unfortunately, the nature of the evidence is typically anecdotal, theory based, or drawn from limited studies. This means that instructors may not know if the practices suggested in these articles are right for their classrooms. There is a need to broaden these studies within composition researchers, collaborating more frequently with

other disciplines that are already steeped in the regular use of replicable, aggregated, and data-supported research methodologies. In this way, our field will begin to build a foundation of evidence-based practices that can be substantiated over time with different factors, which is especially important when making claims about peer review practices that are used in a variety of settings and with a variety of different types of students.

Chapter 3: Web-Based Peer Review, Replicable, Aggregated, and Data-Supported Methodologies, and the Future of Research in Composition Studies

Chapter 2 identifies several important moments in the history of peer review scholarship in composition studies. This history serves as an important reminder of where we have been and where we are now as instructors of first year composition who use peer review in the classroom. This chapter will focus on one potential avenue peer review scholarship can take in the future: replicable, aggregated, and data supported (RAD) research. RAD research is currently used by various academic fields to establish best practices and to verify the effectiveness of their methods and results. There have been a few early adopters of this type of data-supported research in composition studies, and their efforts have produced web-based peer review programs that help instructors manage peer review sessions. This chapter will conclude with a look at how one of these programs, Eli Review, is being used at Oregon State University.

In the 1990s, composition studies journals, such as the National Council of Teachers of English and College Composition and Communication, published fewer and fewer articles that included data-supported research on peer review or on other topics. One might ask: why wouldn't the field of composition, and even more specifically the field's most prestigious journals, want more data supported and empirically evidenced research? According to Richard Haswell, in his article "NCTE/CCCC's Recent War on Scholarship," these journals have dubbed this type of research "the enemy, and labeled it *scientism*, *fact mongering*, *antihumanism*, *positivism*, *modernism*, or worse" (200). According to Haswell, some composition scholars see the threat of RAD research as a battle between research and practice. Much of the scholarship in composition studies

relies on practice, so admitting to the need for RAD research might seem to imply that opponents of RAD research have been wrong all along or that they must give up deeply held practices and principles. Haswell does not believe this distinction must be made. In other words, the humanities and scientific world can exist together in harmony (217). Haswell continues to argue that these attacks on data-supported research projects are unfounded and empty—in part because RAD research is “currently healthy and supported by every other academic discipline in the world” and therefore “does not need defending” (200). Perhaps an even more convincing to skeptics is that RAD research requires the use of case studies and other methods already common to composition research. In this way, RAD research not only can coexist with more traditional composition methodologies, but it must.

The emergence of digital technologies in the classroom also reveals a need for more RAD research. As many disciplines began transitioning toward a digital landscape, some scholars did feel the need for more RAD research, especially in the humanities and composition studies. As noted in chapter 1, composition scholars, such as Liu, Sadler, Paulson, Armstrong, and Alexander began research collaboration with other disciplines to better understand new aspects of peer review, specifically in relation to multi-modal digital technologies.

This changing classroom landscape has prompted Richard Haswell and Steven J. Corbett to call peer review scholars in composition studies to action. Haswell suggests that while peer response is one of the most frequently used activities in composition classrooms, it is one of the least studied. Haswell, perhaps sarcastically, asks if this lack of research by composition scholars suggests we have learned everything we need to know about peer response (201). Haswell answers his own query by suggesting that

interdisciplinary collaboration on such projects would advance our understanding and practice of peer review. Corbett, in a forthcoming book, adds to Haswell's concern:

I want to raise a call for deeper comparative *intradisciplinary* practice and study of peer response activities from various writing studies subfields including WAC/WID and writing center and peer tutoring theory and practice. I further believe that the extensive amount of research and practice occurring in fields outside of English and rhetoric and composition studies can also add much to our interdisciplinary understanding of the practice of peer response. (Surrender Control 2)

Here, Corbett recognizes the work being done in other fields and calls for collaboration across disciplines to advance our understanding and practice of peer review.

Interdisciplinary collaboration, especially with fields that use large-scale RAD research, would give composition studies a more substantial understanding of which peer review practices do and do not work in the classroom.

Interdisciplinary Collaboration: The Future of Composition Research

Interdisciplinary collaboration is not an untested approach in peer review and composition studies. Beginning in 2003, learning and education research assistants from the University of Pittsburgh, Kwangsu Cho and Christian Schunn, began looking at the problems of process writing, specifically revision and feedback, in large college courses where these practices were difficult to perform due to time constraints. Cho and Schunn, both from the Department of Information Science and Learning Technologies, used Flower et al.'s powerful 1986 article "Detection, Diagnosis, and Strategies of Revision," which was published in the composition journal *CCC*, as a foundation for their work. Cho and Schunn drew from Flower et al.'s cognitive process model of revision, which proposed a heuristic for peer revision where "reviewers initiate the review process by representing peer writing. They read peer writing to understand it. They try to integrate

successively encountered information from the text into a coherent and well-integrated (mental) representation” (32). Reviewers then use “meta-cognitive monitoring” to detect problems in the text. Flower, in her earlier studies, found this process more effective than student writers revising their own texts because they found that these student writers’ own memory would fill the gaps between what they actually wrote and what they thought they wrote.

From this model, Cho and Kwon developed a web-based reciprocal peer review system called SWORD (Scaffolded Writing and Rewriting in the Discipline), which is now marketed as “Peerceptiv.” This web-based program “supports writing practice, particularly for large content courses in which writing is considered critical but not feasibly included” (409). In addition, Cho and Schunn developed “algorithms that compute individual review accuracy,” which help provide aggregated data and can eventually be compiled to create more effective peer review exercises.

Over the next decade, Cho and Schunn worked on “Scaffolded Writing and Rewriting in the Discipline: A Web-based Reciprocal Peer Review System” and have collaborated on multiple projects with many scholars, including Charles MacArthur of the Education department at the University of Delaware, Kwangbin Kwan of the University of Missouri, and many other researchers from various fields, advancing peer review and feedback models across the disciplines, as demonstrated in articles such as Kwangsu Cho’s “Commenting on Writing: Typology and Perceived Helpfulness of Comments from Novice Peer Reviewers and Subject Matter Experts” (2006), Cho, Chung, King, and Schunn’s “Peer-Based Computer-Supported Knowledge Refinement: an Empirical Investigation” (2008), Cho, Schunn, and Kwon’s “Learning Writing by Reviewing” (2009), Cho and MacArthur’s “Learning by Reviewing” (2010), and

“Student Revision with Peer and Expert Reviewing” (2010). RAD research on peer review has continued outside composition studies well into the 2000s.

Productive Interdisciplinary Results: Eli Review

Much of the above collaborative interdisciplinary research was noticed and lauded by three Michigan State University faculty members, Jeff Grabill, Bill Hart-Davidson, and Mike McLeod, all colleagues in the Rhetoric and Writing program. These composition scholars recognized the necessity in composition studies for advancements in peer learning technologies. Aside from Flower et al.’s work in the 1980’s, they did not find within composition studies the type of research needed to undertake the project they had in mind. This project, which would eventually be called Eli Review, was originally meant to address the problem of revision in the classroom. Revision, according to Grabill, Hart-Davidson, and McLeod, is an integral part of the writing process, a conclusion these scholars agreed upon in part from personal classroom experience and in part from Cho, Kwan, Schunn, and MacArthur’s aforementioned research.

In Eli Review’s original white paper, published in 2012, Grabill et al. suggest that research shows more effective writing comes from revision and feedback, but that “getting helpful feedback is difficult. Teachers are too busy to provide substantial feedback to each of their students, and they often use peer review to share that work” (Whitepaper.pdf). The authors also mention poorly trained students as another potential problem with peer review. As a solution, Grabill and his colleagues designed a web-based software program that places revision at the center of the classroom. The authors claim:

Eli is the solution to the challenge of preparing students to give helpful review feedback and produce high-quality revisions. It is a coordination tool designed specifically to help teachers focus on

teaching and not the tedious tasks of collecting papers, compiling drafts, comments, and revisions, or trying to facilitate multi-day peer review activities. (Whitepaper.pdf)

Eli Review, then, was created, from the interdisciplinary work that developed review models such as SWoRD, as a platform to manage the challenges instructors face with peer review. Eli review was originally created to meet the needs of instructors in environments similar to Michigan State's writing courses, but is now used primarily in k-12 classrooms all over Michigan. In a conversation with Grabill, he mentioned that over 4,000 classrooms in the state of Michigan now use the technology.

From my own examination of the website, Eli uses an eight step online process that allows students to submit papers online, and then allows them to give and receive feedback on scaffolded projects or on various drafts of the same assignment, and to execute these assignments with guided prompts, based on learning-writing-by-reviewing research. Instructors create "writing tasks" for each draft they want to be reviewed, and they can create as many tasks as they see fit for each project. In step one, students create an account with the option of creating a pseudonym. If the instructor opts to use pseudonyms, bias in student reviews may lessen, as reviewers are not aware of the actual identify of a given author, which "ensures there is no retribution between particular authors and reviewers" (Cho et al. 425). Before step two, the instructor writes instructions for the first phase of peer review. In step two, authors upload their drafts to the website before a deadline specified by the instructor. Then the instructor assigns each paper to groups he/she designates. This task can be performed anonymously, even if the instructor did not have their students create pseudonyms. It is not known for sure whether anonymity changes the outcome of peer review, but some scholars speculate that biases

and hierarchies develop in a group of students, which may affect how they perceive the writing of their peers (Bracewell et al. 42).

For step three, reviewers log in to the website and access the drafts of the members of their group. The members of the group can download the papers or simply read them online. By following the prompt the instructor has given them for this phase of review, the students respond to each paper in their group on the website. Once the review deadline has passed, the comments are made available to the original authors. Again, in most cases these comments are anonymous. In the fourth step, the original authors are given a deadline to evaluate the feedback they were given. This is done using a star rating system. Usually, students are given a five star scale to evaluate their reviewers. There is typically no rubric for judging the quality of a peer's feedback, but it is suggested that students determine effectiveness based on the instructor's feedback prompt. For example, if a review is far too short or does not respond to the questions asked by the instructor, a five star rating should not be given. This is a potential weakness in the application, but the only other alternative developed is an algorithm that generates grades for the review on its own. Eli does not use this algorithm because it poses ethical questions about automatically generated evaluation (Whitepaper.pdf). The evaluation of reviews is an especially important step in the process because it ensures that students spend time on their reviews, and poorly evaluated reviews alert instructors to potential situation in which they may need to intervene.

Step five asks students to revise using the reviews of their drafts. The instructor then sets a revision deadline, possibly supplemented with more instructions or prompts. It is important to note that the instructor can see the original drafts and reviews produced in

the first four steps. This may be important if an instructor needs to monitor participation or progress of their students.

There are always students who do not meet deadlines. If students do not upload drafts on time during step two, they cannot review other drafts in their groups. Also, if they do not review their group members' drafts, they cannot receive the feedback given to them by their group members. In this way, an instructor can monitor participation without actually spending time reading all the reviews and drafts, because it will be apparent if someone is not doing their work. An instructor can manually add students to steps of the process whenever they wish, but the instructor will obviously know the student has missed specific steps and can alter their grade accordingly.

During step six, the instructor sets a deadline for the final draft of the original paper. Students then log in to the website and upload the paper before the deadline. The instructor must create a new prompt for the revision of these drafts, so the students will have questions to answer or guidelines to follow. For step seven, the reviewers log in to the website and access the final drafts of the assignment. The instructor can change the groups as often as they wish, but generally they will want to keep the same groups throughout the process to create a sense of familiarity between drafts. The reviewers leave feedback for the final drafts, like they did in step three. Once the deadline has passed for the reviews, the original authors can view the review(s) they received. For the final step, the authors evaluate the reviews once again, using the five star scale.

After the eight steps are complete, an instructor can have the students revise once more on their own, using the last reviews they were given. The last revision can then be turned in to the instructor for an actual graded evaluation. In this way, students have preformed various revisions on an assignment without forcing an instructor to see each

phase of the process. This cuts down on instructor time demands. Perhaps more importantly, Eli allows students to benefit from peer review more frequently and to develop autonomy in revising after feedback. After drafts, reviews, and final papers are submitted through Eli, it also generates statistics for the instructor. For example, “comment digests” can be downloaded for each writing task. These digests allow the instructor to view comments made by students in a variety of document formats, such as .doc and .pdf. There are also trend graphs available, which show the ratio of comments given to comments received for each writing task. Instructors can also view statistics for all their classes and each task. These statistics include completion of assignments, word counts, helpfulness of comments ratings, and many more. These lists and graphs help prompt instructors to focus on trending issues in the entire class, or to focus on individual issues with each student. These assessments can also be used in generating future lesson plans in future courses.

Eli at Oregon State University: A Case Study

As noted earlier, Eli can be adapted to many different grade levels and assignment types. It may be useful for the discussion of Eli in first year writing to examine Eli’s use in a university writing program beyond that of the designs of Eli at Michigan State. Oregon State University currently uses Eli in its required first year composition course. Oregon State is a large land grant school with approximately 28,000 enrolled students. Even though a first year composition course, WR121, is required for all students, approximately 40% of OSU students bypass WR121 by taking a similar course in high school, community college, or transferring writing credits from another post secondary institution. Instructors and faculty teach WR121, but graduate teaching assistants (GTAs) teach a majority of the WR121 courses. Typically, GTAs teach at most eight WR121

courses before they graduate. These GTAs are enrolled in OSU's Master of Arts or Master of Fine Arts programs in one of three foci: MA in Rhetoric, Writing, and Culture; MA in Literature, with a possible focus on film studies; or an MFA in Creative Writing. These graduate students enter OSU with a variety of teaching experiences and are required to attend a five-day orientation before teaching their first course. GTAs teach a common syllabus and assignments, and common textbooks. WR121 is typically taught over OSU's standard ten-week term.

The WR121 syllabus all GTAs follow is comprised of three basic parts. The first part is a six to seven week research project that includes at least four assignments designed to help students choose their own topic, and ends with a research paper due during week seven. The next part is called *The Exchange*, which lasts three weeks (with the possibility to extend for some students through finals week) and involves the use of Eli. The last project, which runs concurrently with *The Exchange*, is called *The Style Project* and allows students to learn about the craft of writing, while specifically tailoring a smaller amount of content to a specific audience.

Because Eli is only used in *The Exchange* project, that assignment is our focus here. One of *The Exchange*'s central purposes is to help students learn to provide quality, evidence-based feedback to their peers. Eli functions as the virtual space where the peer feedback takes place. In *The Exchange* assignment prompt, students are directed as follows:

The Exchange is a publication that distributes and promotes WR 121 writing that engages the diverse audiences of OSU with relevant and compelling arguments that invite new perspectives, provoke new beliefs, kindle fresh ideas, and facilitate the kinds of change students wish to realize. *The Exchange* is an 4 page insert

that is distributed by *The Daily Barometer* (OSU's student newspaper), which publishes once a quarter, with the exception of summer, and invites submissions between 200 and 600 words in multiple genres. This assignment asks you to not only write for *The Exchange*, but to also act as reviewer and editor as well. (Exchange BB Prompts.pdf)

This assignment is uploaded to Eli by each student, who then reviews and gives feedback to two submissions by their classmates. The content uploaded by each student addresses issues relevant to the Oregon State community. The submissions are reviewed by students in Eli twice, after which the best manuscripts are sent to a selection committee that decides which ones should be published in an insert in *The Barometer*, Oregon State's school newspaper.

Many OSU instructors and students are unfamiliar with Eli at the start of the term, so some training is needed for both groups. During the five-day orientation before the first term of their Master's degree, GTAs spend at least four hours learning how to use Eli and how to teach students to give effective feedback to their peers. In the fall of 2014, the first time Eli was required in all WR121 courses at OSU, Jeff Grabill, one of the founders of Eli, came to the GTA orientation. Grabill showed students how Eli works and gave suggestions about how to teach effectively students how to give each other feedback. In addition to orientation, GTAs are required to take a two-credit practicum during their first term. During this practicum, GTAs continue to learn about teaching and the OSU WR121 curriculum. The GTAs are also given access to supplementary teaching materials, including powerpoints and webinars on effective feedback, so they can better prepare to teach peer review to their students. Further, GTAs are required to take one graduate level composition course before they graduate that includes instruction in writing pedagogy.

The Exchange is typically introduced during week seven and concludes during week ten. Students are typically taught how to use Eli in class during week seven or eight, so they know how to use it before they are required to review their peers' manuscripts. After students decide on a topic, they write a draft of their manuscript and submit it for review in Eli. Students, commonly placed in groups of three, are then asked to review two of their peers' manuscripts. The instructor creates a "writing task" for the first review. After students review the peers' manuscripts in their groups, they are given time to access the feedback they received and revise.

For the second round of revisions, students turn in a revised version of their original manuscript. Students are then asked to think of themselves as "editors" and to write an "Editor's Letter" to the authors whose work they are reviewing. Students are prompted in Eli as follows:

In this space, please compose your Editor's Letter to the author. You may begin by articulating the author's argument as you see it; this way you build credibility as a review by showing that you understand what they're trying to accomplish and how they're going about it. Then, provide evidence-based feedback to the author that explains and supports your editorial decision ... Your credibility as an editor and your overall decision will depend upon how well you articulate *why* you are making such a recommendation. (Instructions for Eli Editorial Review.pdf)

As prompted, students are asked to give evidence-based feedback to their peers in the form of an Editor's Letter. This letter should explain why the reviewer suggested the manuscript be placed into one of three categories: accepted with revisions, revised and resubmitted, or declined. The reviewer is graded on the quality of their feedback and in part on the rating the author gives the reviewer, which is typically done through Eli's

reviewer rating system. Instructors usually have students use Eli outside of class to review peer manuscripts, but the review process can be done during class, as well. Once students receive peer feedback, they are given the opportunity to revise their manuscript and resubmit, but there are no other required peer revisions. *The Exchange* is the only assignment that requires peer response during the ten-week term, but instructors can implement as much peer response during the term as they see fit.

At the time of writing this thesis, Eli has only been used at Oregon State for one year. I was fortunate enough to pilot one of the first courses to use Eli at Oregon State University. Since then, I have helped teach graduate students how to use Eli during orientation and during the last school year as a composition assistant. From my perspective, there are many benefits to using Eli. Using Eli in conjunction with *The Exchange* project helps to train students to write and review for various audiences. In this way, students begin to learn to rely on their own abilities to review and critique their peers' work. Eli aids students in this process by providing a private and sometimes anonymous space for peer review to take place. Additionally, Eli provides feedback tutorials for extra training and support. In OSU's WR121 curriculum, Eli also acts as an indicator that the course work is transitioning to a feedback-oriented project. In other words, because Eli provides a separate virtual space that may be unfamiliar to most students and is used exclusively for one of only three major units during the term, it may indicate to students that peer revision holds a significant level of importance to the writing process.

Along with its positive contributions to the curriculum, Eli's implementation and execution have seen a few minor obstacles. Most of these small problems stem from

instructor training challenges and the closely packed ten-week term. GTAs are provided at least four hours to learn how to use Eli and teach effective feedback during orientation and additional instruction is given during practicum if needed. There are several feedback tutorials provided to instructors outside of orientation and practicum, as well. But Eli did not have as many tutorials and feedback models for instructors in the fall of 2014 when Oregon State first began using the program. If used during future orientations, these materials will educate instructors with feedback models specifically designed to be used with Eli.

Another unexpected issue with Eli in the WR121 curriculum concerns payment. Students are required to purchase *The Academic Writer*, which includes a code to access Eli. These codes give students six months of access to Eli, even though the term only lasts ten weeks. Consequently, students pay for more than three months of access they are unlikely to use. In addition, some students lose their codes and must pay for another six months of access if they want to continue using Eli. Providing ten weeks of access, instead of six months, at a reduced price would decrease the unnecessary financial burden placed on the students. Implementing a more effective coding system, where students are assigned their own codes that are tracked by Eli and can be retrieved if lost, would also reduce the potential for additional student costs and time spent by instructors and administrators on this problem.

I see many uses for Eli in the future at OSU. For instance, Eli is an effective way to use peer revision for iterative projects that span several revisions of the same document. Oregon State's WR121 curriculum begins with a six to seven week scaffolded writing project that asks students to generate a research paper step by step. Eli could be

used for this project as well as for *The Exchange*. In this way, students would receive more feedback on each assignment, become more familiar with Eli, and students would gain more use of the program they pay for. Because GTAs are also typically unfamiliar with Eli, perhaps a full-term use of the program could be more effective in the instructor's second term of teaching.

But what could the development of Eli and its implementation at universities like Oregon State mean for the future of peer review research in composition studies? For researchers, it may not have immediate application. Eli was not primarily designed to produce large, sweeping amounts of data to be used by researchers to make more general claims about peer review. Grabill and his team are compiling statistics from Eli accounts, but that data is not public. Eli is the product of RAD research, however, which shows benefits of data-supported inquiry in and of itself.

The more practical uses of Eli reveal the program's most immediate potential for impact. Yes, Eli is a clever way to more efficiently manage peer review when time is an issue. But the way Eli tracks and records statistics from peer review activities bears the most potential. With these statistics, instructors can detect common issues in the class, help individual students with their needs, and more effectively plan for future revision activities. In this way, Eli helps instructors become self-sufficient, reflective about teaching, and address the more specific needs of his/her classroom.

The use of Eli at Oregon State University depicted in this chapter also reveals its potential for positive impact at other universities. The use of Eli in other first year composition courses will allow for instructor development on the program itself, but also on basic principles of peer review in any delivery system. From our experiences at

Oregon State, instructors should notice that piloting Eli with a small sample group is beneficial before implementing the program more broadly. In this way, bugs can be worked out with more ease and care. It may also be beneficial to practice using Eli with shorter assignments before graduating to longer papers. This will allow instructors and students to get familiar with the software. Finally, one of the most exciting aspects of Eli is the potential for data-driven teacher self-reflection. By reviewing the data of each task for each assignment, instructors can identify the strengths and weaknesses of their assignments and their students. With that information, instructors can improve their own teaching throughout the course and in future courses. The potential for data collection while using Eli can also be used for program assessment. If multiple courses in the same program use Eli, all the data collected from each course could be assessed by the program to make improvements and spot strengths.

In chapter 2, I mentioned that Thomas Newkirk realized his own previous case studies were flawed because he had attempted to represent entire writing populations from the observations and analyses of one student. I fear I am treading in the same water. I have only observed the use of Eli at one university, and my hope is that I am not making claims from these observations that surpass the scope of my evidence. Eli is a new program, and we simply do not yet have enough information on its use and effectiveness to provide more evidence in this thesis. But if programs like Eli continue to be used, there will be data-supported evidence that perhaps can be used in the future to determine if and how student writing improves through specific peer review activities.

As the field stands now, the evidence in our scholarship is not typically data-driven, but peer review programs like Eli could change that. Eli's capability to produce data on peer review sessions over time may position it as a nexus for the debate over

RAD research in the discipline. As data is collected and scholarship is published, the composition community can reassess the positive and negative effects of qualitatively assessing peer review practices. Even though I support RAD research, I am still compelled to ask questions about what is gained and what is lost with the inclusion of online peer review. For instance, how is a particular writing community affected by peer review practices executed in digital spaces like Eli? Similarly, are face-to-face peer review practices more beneficial to individuals than digital practices? If so, is the loss of these benefits to the individual more important to preserve by excluding digital peer review, even if the greater composition community benefits more from its inclusion?

There are many questions yet to be answered regarding the inclusion of digital peer review practices and how they relate to the larger debate over research methodology in our field. But we have the means and the example of the entire academic community at our disposal to help us answer these questions. And as these questions are addressed and studied, we will further legitimize the research in our field and provide a more stable direction for the future of our discipline.

Chapter 4: Conclusion

In this final portion of my thesis, I will offer a few common pedagogical conventions of peer review. Some readers may expect a “Best Practices” section of a thesis on peer review, but without the proper evidence, all I can offer are common practices. After acknowledging several important moments in peer review scholarship, I will summarize the observations and analyses of the research presented in the previous chapters. My final note will describe what I believe the future of peer review research and scholarship will look like, if the claims presented in this thesis are considered and followed.

Peer review practices are rarely holistically agreed on by scholars and instructors, but I have observed several trends and common practices in the previously outlined peer review models. Most of the articles reviewed recommend face-to-face interaction and verbal conversation. At one time, face-to-face communication would have been the norm, but as technology is integrated into the peer review process, the face-to-face component might be phased out. Excluding verbal and face-to-face interactions can be detrimental to native and non-native English speakers alike, as personal interactions create stronger learning communities and body language and voice inflections provide important social cues.

Many scholars also agree that allowing students to create their own criteria for the peer review session is crucial. Allowing students to create the criteria gives them a sense of ownership and accountability, but these student-generated criteria must align with the instructor’s outcomes and goals for the peer review session. Many scholars and instructors also agree that peer review training is important to an effective peer review session. These training sessions can include sample papers and criteria and teacher

modeling. Ultimately, it is important that students know what good peer review comments and interactions look like.

Flexibility is also crucial to effective peer review. It is important that instructors build a peer review session to specifically fit the goals and outcomes of their particular class and assignments. Each writing assignment is different and may require different criteria and time frames. Each group of students is different, as well. Assessing ability levels and students' chemistry is important when making groups and deciding what students most need at a given time. It may take some time to figure out exactly what each class needs, but if instructors spend the time and effort to make peer review as effective as possible, many scholars, including myself, believe student writing will improve.

Peer review is an integral part of the revision phase of process writing, because it is often the first time a person other than the author sees a draft and makes comments and suggestions. Because it is an important part of composition pedagogy, peer review has been the focus of research and scholarship for decades. Numerous scholars and instructors have been dedicated to understanding and developing more effective peer review practices. Without their dedication, peer review scholarship would be much for the worse. But appreciating and recognizing the contributions of these scholars and instructors also carries the weight of obligation to continue looking forward and to strengthen the foundations they have laid. In this light, this thesis has looked at the research and scholarship of some of these scholars, such as Peter Elbow, Kenneth Bruffee, Linda Flower, and Irvin Peckham, with the question: What is the nature of the evidence supporting their claims?

This thesis research finds that typically the claims made in peer review scholarship are supported with theoretical and anecdotal evidence, far more often than

with quantitative, data-supported evidence. To echo Richard Haswell and Steven Corbett, I also believe that the field of composition studies, as a subset of the humanities, must open the field to research for peer review scholarship whose methods and results are replicable, aggregated, and data-supported.

As we look to the future of peer review scholarship, there are already pioneers of RAD research in composition studies we can look to for examples, and successful interdisciplinary collaborations we can study for guidance. Interdisciplinary collaboration may be the best place to establish RAD research as the primary method for peer review scholarship. As most all other disciplines expect some form of RAD research in their scholarship, collaborating with these scholars would ease the transition in our field and provide needed expertise and guidance.

The Writing Across the Curriculum field is an excellent place to implement RAD research and collaborate with experienced scholars from other disciplines. WAC lends itself well to RAD research because it is inherently cross-disciplinary and in great need of peer review scholarship. I have worked with WAC (we call it Writing Intensive Courses) at Oregon State University over the past year. Some of my responsibilities include organizing and presenting at faculty seminars, reviewing current WAC courses, and evaluating proposals and syllabuses for new WAC courses. My involvement with instructors of writing courses across the disciplines has informed me of writing practices in other fields, which are often informed by rhetoric and composition pedagogy. For instance, at Oregon State, all WAC courses ask students to: “demonstrate the ability to compose a document of at least 2000 words through multiple aspects of writing, including brainstorming, drafting, using sources appropriately, and revising comprehensively after receiving feedback on a draft” (WIC outcome 3). As an important

part of process writing in any field, revising drafts of student work is required of all students. Nearly every course proposal and syllabus I have evaluated during my time at Oregon State has required peer review to satisfy this outcome. At Oregon State, we offer a five week training seminar, where we teach basic peer review approaches and conventions to WAC faculty. We also offer lunch seminars focused on peer review practices from time to time. Yet, numerous WAC instructors have still contacted me seeking instruction in peer review practices. Despite what we already know and teach about peer review, there remains a strong need for more research, scholarship, and expertise on peer review in WAC.

Part of my WAC responsibilities included researching different ways to immediately help these instructors more effectively implement peer review in their courses. Through interviews and consultations with instructors, faculty, and staff at Oregon State, I found that one immediate need for peer review in writing courses across the disciplines was in training instructors to use web-based peer review resources, like the LMS Canvas, which was recently adopted by Oregon State University. Much like the web-based peer review resource Eli Review, Canvas offers many peer review tools that help manage large class sizes and distance learning issues, among other things. Canvas, like Eli, is also the product of interdisciplinary collaboration and RAD research. Through these experiences with faculty at Oregon State across the disciplines, I find that WAC is a field ready to utilize not only the products of RAD research, but also to execute such research because the field expects data-supported evidence and deeply needs better instruction in the field.

Ultimately, peer review scholarship is at a crossroads. One fork of the road, one that mirrors the research traditions of the past several decades, leads to the same type of

evidence and practices the field has seen in this same time period. These practices are not necessarily ineffective, but they also have not produced evidence of the effectiveness of peer review and its specific practices. The other fork, one that includes RAD research, leads to evidence that can be collected and evaluated to determine over time which peer review practices are most effective. Some peer review scholars have already begun to walk down the latter path, and their efforts have already produced promising results. It is time to legitimize peer review scholarship across the disciplines and build a data-supported foundation of peer review practices that can be continuously evaluated for efficacy.

RAD research is embraced and used by scholars in nearly all other academic fields, and there is clear, logical evidence to support its inclusion. Yet the humanities do not seem ready to incorporate it in its scholarship. This hesitancy to embrace more empirical or data-based methods of research may stem from a long-standing tradition held by scholars in the humanities that arguments need to remain debatable in our field. The fear, then, might be that the more quantified the field becomes, the less debatable its conclusion will be. Furthermore, scholars may fear that RAD research seeks to replace individuals with numbers, causing the field to lose its humanist values.

This argument against data-driven research is not supported by substantiated evidence. Scholars who support RAD research do not aim to eliminate the tradition of debate and humanity in our field. Simply put, both of these ideologies can coexist; implementing data-driven research will not push out the core ideals of the field. But if research and scholarship continue on the foundations of theory and anecdote in our field, the nature of the evidence in our scholarship will remain unconvincing and ambiguous, and we will not prepare our field for the future. If these methods are adopted, however,

our field will benefit from vetted, proven evidence, resulting in more effective peer review pedagogies and practices.

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