The Community of Inquiry Framework in Writing Studies

Designing for Learning with Peer Review

Jennifer M. Cunningham, Mary K. Stewart,
Natalie Stillman-Webb, and Lyra Hilliard

THE COMMUNITY OF INQUIRY FRAMEWORK IN WRITING STUDIES: DESIGNING FOR LEARNING WITH PEER REVIEW

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Preface

This book is the culmination of eight years spent developing our own community of inquiry through research design, data collection, content analyses, and collaborative composing—all while establishing relationships, both working and friendship. In March 2017 at the Conference on College Composition and Communication (CCCC) in Portland, Oregon, the four authors of this book attended an Online Writing Instruction (OWI) Standing Group meeting. Not having met previously, we found ourselves in a conversation together, given our individual interests in and research with varying aspects of the Community of Inquiry (CoI) framework. At that meeting, we formed a subcommittee that evolved into a research team. Supported by two internal grants at our respective institutions and a 2018 CCCC Emergent Researcher Award, we collected survey and interview data in 2017–2018 and collected interview and course observation data in fall 2019. Our collaboration has resulted in four journal articles, a book chapter, and this book—not to mention the affinity and friendships that have naturally occurred as a result of weekly Zoom meetings and annual conference travel.

This book focuses on the data we collected in fall 2019: in-person and virtual observations and interviews with nine instructors and 20 students enrolled in hybrid and online first-year writing courses at four universities across the United States. We particularly focused on our participants' experiences with peer review, examining the extent to which those workshops functioned as communities of inquiry. We used the results to develop a writing studies-specific version of the CoI framework, which we hope writing instructors, writing program administrators, and writing center professionals will use to design digitally mediated learning environments that foreground collaboration and community.

As this data was collected pre-COVID-19 pandemic and before generative AI tools like ChatGPT became available, our analyses, findings, and resulting discussions won't address the impact of the COVID-19 pandemic or generative AI on OWI. As we hope readers will agree, the CoI framework remains applicable to instruction in a wide range of contexts and modalities, and we look forward to future research that applies CoI concepts to writing studies in ways that examine post-COVID-19 emergency online learning and/or generative AI in writing instruction.

THE COMMUNITY OF INQUIRY FRAMEWORK IN WRITING STUDIES: DESIGNING FOR LEARNING WITH PEER REVIEW

Chapter 1. Introduction

The Community of Inquiry (CoI) theoretical framework is a data-driven theory of instructional design that was developed by online learning researchers in 1999 (Garrison, Anderson, & Archer, 1999). The framework has been widely adopted by online learning scholars and teachers across all disciplines of higher education. This book applies the framework to the design and delivery of hybrid and online first-year writing (FYW) at institutions of higher education in the United States. We argue that the CoI framework is particularly applicable when designing and delivering online and hybrid writing courses as well as face-to-face courses with digital components.

Throughout this book, we concentrate on peer review as a site where writing classrooms function as communities of inquiry. Our focus on peer review is a result of our previous research. In 2017–2018, we surveyed 669 FYW students and conducted 81 follow-up interviews. When describing how they learned from their classmates, students were most likely to mention peer review (Stewart et al., 2022; Cunningham et al., 2022). Consequently, we focus on peer review as an example of how to apply the CoI framework to writing studies. However, our goal is not to recommend one ideal way of designing digital peer-review workshops; instead, we present the CoI framework as an instructional design strategy. Our hope is that our readers will use our writing studies version of CoI as a heuristic to develop and evaluate a wide range of collaborative learning activities in various modalities.

Our anticipated readers are (a) writing instructors who will adapt the strategies we present for designing and facilitating peer review and other collaborative activities; (b) writing program and writing center administrators who will use the CoI framework to create training and professional development programs for graduate student instructors and faculty; and (c) fellow online writing instruction scholars who will replicate, extend, and/or critique this area of research.

Community of Inquiry Framework

The CoI framework, theorized by D. Randy Garrison et al. in 1999, is a social constructivist model of online learning. Founded on the precept that effective online learning must develop a sense of community among classmates, the CoI framework is comprised of three elements: *cognitive presence*, *social presence*, and *teaching presence*. Adapted from Garrison et al. (1999), Figure 1.1 visualizes the presences as components of a Venn diagram.

Cognitive presence is the goal of a community of inquiry. As Garrison et al. (1999) defined it, *cognitive presence* is the ability "to construct meaning through sustained communication" (p. 89). CoI researchers have characterized *cognitive presence* in terms of John Dewey's (1910) four phases of practical inquiry:

triggering event[1], *exploration*, *integration*, and *resolution*. Students encounter a *triggering event* (typically created by an assignment or a comment made by the instructor or classmates), which encourages them to *explore* their own prior and emerging knowledge of the concept. Conversations with course participants prompt *integration* when students negotiate multiple perspectives and construct new knowledge. Finally, students achieve *resolution* when they apply what they have learned. In our model of peer review as an example of a community of inquiry, we examine how students in FYW courses experience these phases when they revise in response to feedback.

Social presence was first defined by John Short et al. (1976) as the "degree of salience of the other person in a mediated communication and the consequent salience of their interpersonal interactions" (p. 65). In 1992, Joseph B. Walther expanded the concept of *social presence* to include whether people developed visual interpretations of others in online environments through text-based communication to create a sense of intimacy and identification.

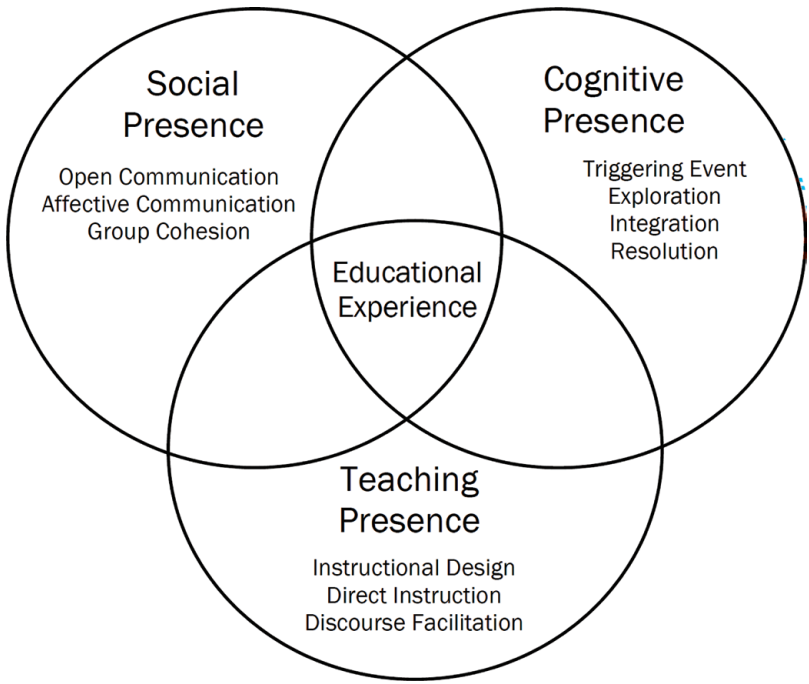


Figure 1.1. Venn Diagram of the COI Framework. Adapted from Garrison et al. (1999).

1. In the decades since Dewey's discussion of these terms, "triggering event" has taken on a new connotation related to trauma. We maintain the original terminology because it is used consistently throughout CoI scholarship.

By 1997, Charlotte N. Gunawardena and Frank J. Zittle added the idea that *social presence* related to whether someone felt as though they were interacting with a "real" person. This is closer to the definition first employed by Garrison et al. (1999) in their CoI framework, where they defined *social presence* as "the ability of participants in the CoI to project their personal characteristics into the community, thereby presenting themselves to the other participants as 'real people'" (p. 89). Garrison et al.'s (1999) definition included three sub-categories—*group cohesion*, *open communication*, and *affective communication*—that have been critiqued (Annand, 2011, 2019) and reconceptualized (Christen et al., 2022; Wertz, 2022) over time. Our project similarly calls for a reframing of *social presence*, proposing *social perceptions* and *social learning* as sub-categories and calling for more research to account for *social comfort* and students' *attitudes* about online learning.

Teaching presence is the foundation of a community of inquiry. It relies on the instructor's pedagogical choices, which ultimately create opportunities for *social presence* that facilitates *cognitive presence*. CoI scholars group those pedagogical choices into three categories: *instructional design*, *direct instruction*, and *discourse facilitation*. *Instructional design*, as explained by Garrison et al. (1999), "includes the selection, organization, and primary presentation of course content, as well as the design and development of learning activities and assessment" (p. 90). *Direct instruction* is another element of *teaching presence* that typically occurs when instructors provide feedback or offer additional resources to guide students' learning—when instructors directly address or interact with students. The third element of *teaching presence* is *discourse facilitation*, by which instructors encourage student participation and interaction. We maintain the original sub-categories of teaching presence in our writing studies model of CoI and particularly emphasize the importance of *discourse facilitation*, arguing that discourse doesn't just happen and needs to be facilitated.

Our previous research indicates that the CoI framework is an effective heuristic for designing and assessing hybrid and online writing classes (Cunningham et al., 2022; Hilliard & Stewart, 2019; Stewart, 2017; Stewart et al., 2021; Stillman-Webb et al., 2023). It is particularly appropriate for FYW because it shares many of writing studies' own theoretical assumptions about writing and learning as fundamentally social processes (Stewart et al., 2022). In this book, we specifically examine peer review as one social activity to which the CoI framework saliently applies.

The Community of Inquiry Framework and Peer Review

We argue that the CoI framework can and should apply to any collaborative learning activity, but we focus on peer review in this book because it is a site

where communities of inquiry noticeably appear in writing classes. As Jason Wirtz (2012) has argued, peer review is a central activity that builds community and defines writing as a social activity in FYW. Kay Halasek (2023) has similarly described peer review as a "connective practice" that "occupies a particular niche in the [course ecology] but also extends across and throughout a course" (p. 83). The social, connective nature of peer review creates a space where students can form a community of inquiry that extends to the rest of the course.

Peer review in writing studies is a well-researched topic. Early scholarship, such as that by Peter Elbow (1968; 1998), showcased peer review as a strategy for emphasizing peer learning in a student-centered classroom. Kenneth A. Bruffee (1984, 1999) and Anne Ruggles Gere (1987) built upon this work and shifted focus to teacher training when designing and facilitating peer-review workshops. Steven J. Corbett et al. (2014) turned their attention to bringing students into the peer review process, with Hannah Ashley et al. (2014) suggesting this could be achieved through student-generated rubrics. More recently, Phoebe Jackson and Christopher Weaver's (2023) edited book provided a comprehensive look at peer review as a historically and rhetorically situated collaborative practice.

Our project is particularly concerned with peer review as a digital activity, which has been a prominent conversation in writing studies literature. In 2000, Beth L. Hewett compared online peer feedback—what she called "computer-mediated peer group talk"—with oral feedback, suggesting that online peer discussions resulted in the direct inclusion of peers' ideas and that oral feedback resulted in less direct revision and more sharing of ideas. Ellen Strenski et al. (2005) examined the benefits of using email for small group peer review, finding that small group exchanges were effective, as were one-on-one emails with students and peer tutors. Christopher W. Dean (2009) focused on research writing in a hybrid FYW course with the larger goal of creating a system of assessment and found that online peer review was effective in part because it allows students to multitask. Ruie Jane Pritchard and Donna Morrow (2017) compared face-to-face and online peer review for a group of K-12 student teachers. They found that online peer review helped the teachers to be more open to online teaching and recommended a combination of face-to-face and online opportunities for peer review. Lee-Ann Kastman Breuch (2005) discussed potential student benefits of asynchronous peer review, such as affording more time to provide feedback, providing quieter individuals a more comfortable environment, and encouraging more directive feedback.

This previous scholarship has consistently concluded that there is tremendous potential for online peer review to result in collaboration and learning. Prior studies have also tended to explore specific tools (e.g., email), compare face-to-face and online peer review, or conceive of digital peer review as asynchronous only. We depart from this trend: instead of comparing face-to-face and online designs with the goal of determining which is more effective, we seek to describe strategies for designing peer-review workshops that can be applied across modalities.

We also differentiate between asynchronous and synchronous peer review, as we have in the past (Cunningham et al., 2022), as opposed to differentiating between hybrid, online, and face-to-face peer review. This distinction helps us argue that peer review is often already digital and can take place synchronously and/or asynchronously. Students can benefit from reading each other's texts in either or both communication modalities and can engage in both modalities whether online or face-to-face. The three presences of the CoI framework—*cognitive presence*, *social presence*, and *teaching presence*—create a modality-agnostic vocabulary for designing peer-review workshops in diverse learning environments.

Peer Review and Cognitive Presence

The four phases of *cognitive presence* as defined by CoI researchers can be used to analyze the learning that students experience during peer review. Our study specifically examines peer feedback as a *triggering event* that prompts students to reflect on their own writing (*exploration*) and make decisions about how to revise (*integration*). We look for evidence of *resolution* in the revisions students make between drafts. In this way, we explore *cognitive presence* as a cycle that is completed within a single workshop session. *Cognitive presence* can also be understood as the ability to transfer writing concepts and peer review techniques beyond FYW (Yancey et al., 2014). We focus on the within-workshop form of *cognitive presence* because our larger goal is to demonstrate how instructors can use the CoI framework to design specific activities. That design process involves understanding *cognitive presence* as just one of three elements of the CoI framework: applying knowledge must be understood in the context of the knowledge being taught (*teaching presence*) and the extent to which knowledge was intended to be collaboratively constructed (*social presence*).

Peer Review and Social Presence

Social presence is of particular interest to us as writing studies scholars because writing is, itself, a social action. Traditionally understood, *social presence* purports that online and hybrid classes must establish a feeling of belonging or trust to create a true community of learning. Without *social presence*, learning can and often does occur individually. Courses that aim to function as communities of inquiry must deliberately create activities and assignments that not only invite student interaction but also require collaboration and knowledge co-construction. Peer review is a clear example of such an activity. Students read and respond to one another's writing, often with the goal of revising their writing in response to peer feedback.

While not employing the CoI framework or terminology, Beth Brunk-Chavez and Shawn J. Miller's (2007) research pointed to *social presence* when they differentiated between collaboration and cooperation. The authors explained that

collaborative learning empowers students because "the authority over both the process and the product is transferred to the groups" (Collabor…co-oper-what section). In a direct application to peer review, they noted that collaboration "takes several forms in composition courses including … detailed critiques of each other's writing" (Collaboration in Action section). In their surveys with six sections of composition students, they found that students' online discussion "posts were thoughtful and interesting, but there [was] little or no indication that they were aware of their fellow classmates' postings or even their existence" (Decentered, Digitized, but not Disconnected section). In that case, students engaged in peer interaction (cooperation), but didn't experience *social presence* (collaboration) as the CoI framework conceives of it.

Existing OWI scholarship on *social presence* in FYW has presented similar findings, illustrating that learning with and from peers isn't as straightforward as it may seem. For example, Jennifer M. Cunningham (2015) investigated whether Voki avatars might create a sense of *social presence* across a range of activities in online FYW courses, finding instead that students preferred simpler, straightforward tasks; they found avatars were "less 'real' than directly communicating with other students … via … peer workshops" (p. 45). However, while students preferred direct communication with peers, they didn't place high value on establishing relationships with their peers. This study illustrated an important disconnect between online writing instruction theory and online writing students' experiences. CoI and OWI scholars have maintained that *social presence* is critical to collaborative learning activities like peer review, but students may not see the same benefit of the relationships that *social presence* is intended to build. Our study adds to this conversation by differentiating between interacting versus building relationships with peers.

The work of Dylan H. Retzinger (2018) and Kimberly Fahle (2019) has further complicated *social presence* by arguing for the importance of accounting for power dynamics. Retzinger (2018) described instructors and students creating online personas that reduce or ignore ways of being in the physical world. Fahle (2019) explored how student underlife, rather than undercutting or interrupting instruction, influences the potential for creating community in a synchronous online writing course. Our study builds on this work in two ways. First, we reconceptualize *social presence* as containing four components: *social learning, social perceptions, social comfort,* and *attitudes*. Second, we question the theoretical concept of *social comfort* and call for more precise measurements of *attitudes* in future research.

Peer Review and Teaching Presence

Teaching presence, which includes both the design and facilitation of the educational experience, relates to the ways instructors structure peer review in their classes. Many OWI scholars have discussed elements of course design that are

part of *teaching presence*, even though they may not use that term. Heidi Skurat Harris and Michael Greer (2022), for example, have emphasized purposeful, pedagogy-driven course design. Jessie Borgman and Casey McArdle (2019, 2023) have applied the Personal, Accessible, Responsive, Strategic (PARS) framework, which itself is a framework for *teaching presence* and online course design. And Amy Cicchino and Troy Hicks (2024) have explored the ways practitioners respond to and apply "best practices" recommended by researchers, showcasing important examples of how *instructional design* is theorized versus how it is applied.

Scholars of OWI who have studied *teaching presence* specifically as a component of the CoI framework have tended to focus more narrowly on particular course elements. For example, John Steele et al. (2017) investigated students' perceptions of *teaching presence* via video lectures in online classes, discovering that students in online courses may experience a stronger sense of community if instructors include personalized, supplemental videos. Similarly, Anna Grigoryan (2017) studied *teaching presence* as it relates to student preferences for text-only or audio-visual feedback, finding that most students prefer both and consider audio-visual feedback to be more personal. In our research, we focus on how the three elements of *teaching presence* can facilitate course design, emphasizing the importance of *instructional design* and *direct instruction* to facilitate discourse.

Across the literature in both CoI and OWI, scholars have consistently concluded that *teaching presence* is crucial to facilitating any type of collaborative learning, including peer review. As Brunk-Chavez and Miller (2007) asserted, "unless the instructor purposefully sets out to design it, the course will lack a space for genuinely collaborative activities" (Decentered, Digitized, but not Disconnected section). Understood through a CoI lens, Mary K. Stewart (2017) explained, "*teaching presence* plays a critical role in facilitating this relationship between *social presence* and *cognitive presence*, because students must be put in situations where interaction is required for learning" (p. 46). More specific to peer review, Pritchard and Morrow (2017) found "that training students HOW to respond, whether f2f [face-to-face] or online, is essential" (p. 101). Our study contributes to this conversation by understanding *instructional design* as just one of three components of *teaching presence*. Differentiating between all three—*instructional design*, *direct instruction*, and *discourse facilitation*—will help instructors navigate the complex task of design in their local contexts.

Our Contribution

Our large-scale, multi-institutional research responds to Davida Charney's (1996) call for empirical research in writing studies while avoiding what others have pointed out as limitations that can accompany studying our own courses as teacher-researchers or comparing classes in different modalities (Russell, 1999; Warnock, 2013). Further, our examination of peer review through the CoI framework combines theory and practice, offering scholarship that is both data-driven

and pedagogically pragmatic. While the CoI framework was developed as a theoretical framework for online learning, now nearly all learning—including peer-review workshops in hybrid and face-to-face courses—incorporates digital environments, making our research applicable to multiple modalities. Our book offers the CoI framework as a theoretical and practical way to navigate the complicated pedagogical task of designing and facilitating effective collaborative activities like peer review. Overall, we advocate for the CoI framework as a heuristic that can be applied to a variety of modalities and activities.

Drawing upon and extending the original CoI Venn diagram, we also offer a writing studies-specific version of CoI in Figure 1.2. Unlike the original CoI Venn diagram (see Figure 1.1), our heuristic (see Figure 1.2) presents the three presences as an iterative sequence, wherein *teaching presence* creates opportunities for the *social presence* that is necessary for students to experience *cognitive presence*. This organization reinforces a key finding of our research: in order for a course to function as a community of inquiry, instructors need to intentionally and transparently articulate (*teaching presence*) the purposes and goals of student interaction (*cognitive presence*), including why the learning needs to be collaborative instead of individual (*social presence*).

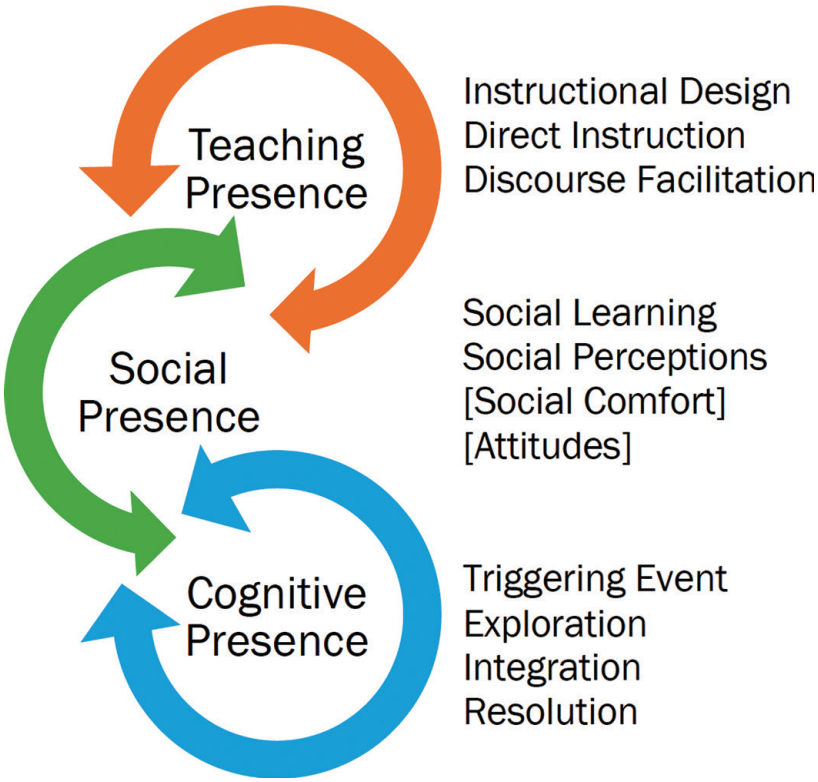


Figure 1.2. CoI in Writing Studies Heuristic

While it's useful to understand the presences as a sequence, they aren't purely linear. Instructors need to know the *cognitive presence* goals for the course before they begin the design processes required by *teaching presence*, and their observations of students' *social presence* can and should impact how they approach both *teaching* and *cognitive presence*. On the right side of the diagram, we have maintained the original CoI researchers' sub-categories for teaching presence (*instructional design*, *direct instruction*, *discourse facilitation*) and cognitive presence (*triggering event*, *exploration*, *integration*, *resolution*) but propose our own sub-categories for social presence (*social perceptions, social learning, social comfort*, *attitudes*). Two of the four *social presence* categories in Figure 1.2 are bracketed to visualize our call for more research related to *social "comfort"* and student *attitudes* about online learning.

Chapter Organization

Chapter 2: Methodology. In our next chapter, we'll discuss our research questions, participant recruitment and selection, data collection, coding, analyses, and limitations. We also include a table of participant demographics and additional information about specific instructors we chose to include as case studies in subsequent chapters.

Chapter 3: Cognitive Presence. Our discussion of *cognitive presence* applies Dewey's (1910) four-phase Model of Practical Inquiry—*triggering event*, *exploration*, *integration*, and *resolution*—to peer review. We first provide a broad overview of our participants' beliefs about the goals of peer review, identifying three most frequently anticipated *resolutions*: *gain fresh perspective*, *learn from seeing peers' writing*, and *improve text*. Then, we triangulate the feedback students received with the revisions they made to look for evidence of students experiencing the four phases of *cognitive presence*. Ultimately, this chapter demonstrates that peer review *can,* but doesn't necessarily, function as a community of inquiry, providing a foundation for the rest of the book.

Chapter 4: Social Presence. In the fourth chapter, we delve further into our interview data to question traditional conceptualizations of *social presence*, focusing on *social learning*, *social perceptions*, *social comfort*, and *attitudes*. In what we hope will be a helpful contribution to CoI scholarship and writing studies, we discuss the complicated nature of terminology such as "relationships" and "comfort" in relation to the importance of building a supportive and inclusive learning community. We ultimately argue that *social presence* is undertheorized and call for more research that differentiates between *social perceptions* and *social learning* and that reconceptualizes the concepts of *social comfort* and *attitudes*. By investigating the dynamics of *social presence*, we unlock the potential for better understanding and for creating opportunities for student interaction, which leads us to *teaching presence*.

Chapter 5: Teaching Presence. In our fifth chapter, we discuss *teaching presence* as course design with the potential for creating *social* and *cognitive presence*.

We examine participant interviews along with artifacts such as instructor assignments, activities, and discussion forums to explore the ways instructors leverage *instructional design*, *direct instruction*, and *discourse facilitation* to create opportunities for our participants' stated learning goals (*gain fresh perspective*, *learn from seeing peers' writing*, and *improve text*). We conclude this chapter by emphasizing the importance of articulating learning goals, intentionally facilitating discourse, and engaging in individual and whole-class communication to optimize the potential for *social* and *cognitive presence*.

Chapter 6: Conclusion. In the final chapter, we offer the Community of Inquiry Framework in Writing Studies as a heuristic applicable to instructors, writing program administrators, writing center professionals, and scholars. Our hope is that this book and heuristic will inform course design, professional development, and future research. Specifically, we hope that instructors will find this heuristic useful as a way to parse course design into manageable phases; that administrators and those in similar roles will share recommendations offered throughout this book; and that researchers will continue to examine the complicated concept of *social presence*, particularly *social comfort* and *attitudes*.

Chapter 2. Methodology

This book presents interview and course observation data collected from four universities in the United States in fall 2019. We observed nine courses, interviewed nine instructors, and interviewed 20 students. Our data collection and analyses were guided by research questions that correspond to the three components of the Community of Inquiry (CoI) framework:

1. **Cognitive Presence:** What learning do students and instructors anticipate from peer review? Is there evidence of students experiencing collaborative learning as a result of peer review? (To address this component, we collected and analyzed information from instructor and student interviews, observational notes, and student artifacts.)

2. **Social Presence:** To what extent do students and instructors believe that interacting with peers during peer review supports learning? (To address this component, we collected and analyzed information from student interviews and observational notes.)
3. **Teaching Presence:** To what extent do instructors' efforts to design and facilitate peer-review workshops contribute to the writing course functioning as a community of inquiry? To what extent does the peer-review workshop design create spaces for students to achieve the intended learning goals? (To address this component, we collected and analyzed information from instructor and student interviews, observational notes, and instructional materials.)

The research questions and overall study design were informed by a previous survey and interview project that took place in 2017–2018 and included student surveys (n=669) as well as student and instructor interviews (n=81). In that initial study (see Stewart et al., 2022), we discovered that many students pointed to peer-review workshops as a place where they experienced *cognitive*, *social*, and *teaching presence*. This observation led us to focus our current project on investigating peer review as a community of inquiry.

Participant Recruitment and Selection

Near the beginning of the fall 2019 semester, we emailed all of the instructors teaching a hybrid or online first-year writing (FYW) course at our four institutions, inviting them to participate in our research. Each of us was assigned to communicate with faculty at an institution that wasn't our own, and we communicated through our university email to contact potential participants.

Instructors were asked to complete a brief eligibility survey and consent

form, indicating whether their course included a peer review assignment for a research project and providing information about their course schedule (see Appendix A and Appendix B). From the pool of interested and eligible instructors, we randomly selected online instructors, and we selected hybrid instructors based on their schedule (this selection criterion was for the purpose of our observation, since two of us traveled to observe hybrid courses, so the course meeting times needed to match with our availability). While we initially intended to include two instructors/courses from each institution, participant availability resulted in an uneven distribution: one online instructor from Institution A, two online instructors from Institution B, one online and one hybrid instructor from Institution C, and four hybrid instructors from Institution D. In most cases, we recruited between two and four student participants per course; however, we recruited only one student from one of the courses at Institution B, and we recruited zero students from the course at Institution A. Despite this uneven participation, and in an attempt to showcase the diversity of course design strategies we observed, we include all of the participants in our interview and instructional material datasets. When it came to selecting case studies (see following), we focused on courses with both instructor and student participants. Worth noting is that none of the courses we observed were taught by us, the researchers involved in this study.

Approximately two weeks before the scheduled observation, we used Qualtrics to contact the students enrolled in those courses (via their university email addresses) and invite them to participate in the study. The Qualtrics-generated email included an embedded video that explained the study and a link to the survey consent form (see Appendix C and Appendix D). The consent form offered students the options of being observed and interviewed or being observed only. Comparing the list of potential student participants with the list of peer review groups provided by each instructor, we selected one group from each class that included students who had all consented to both observations and interviews. To be eligible to participate, students must have been enrolled in a hybrid or online course that we were observing, part of a peer review group with other students who had consented to being observed, and over the age of 18.

Data Collection

The course observations took place during the week in which students participated in peer review for their research papers—roughly week 11 or 12 in a 15-week course. The observations included audio recording face-to-face sessions, screen capturing synchronous video chats, and screen capturing asynchronous peer-review workshops. We also took field notes (see Appendix E) and collected instructional artifacts related to the peer review activity (e.g., assignment instructions and peer review rubrics) as well as the participating students' drafts and peer

feedback. When our own institution was part of the study, a separate researcher gathered that data and interacted with participants to maintain confidentiality and avoid issues of validity.

We scheduled two interviews with each of the instructors (see Appendix F): one in the week prior to the peer review activity and one in the week after the observation. These semi-structured, 45-to-60-minute interviews were audio recorded and transcribed after the semester was completed.

At the conclusion of each peer workshop observation, we scheduled interviews with the students we observed (see Appendix G). Students were interviewed in person or via videoconference within one week of the observation. During these interviews we also asked students for any additional materials and for permission to use screenshots of their work. These semi-structured, 30-to-45-minute interviews were also audio recorded and transcribed after the semester was completed.

Compensation

Each of the instructors and students who participated received a gift card. Students who were selected as case study participants were also entered into a drawing for an additional gift card (one drawing per institution). These incentives were funded by a 2017–2018 Conference on College Composition and Communication Emergent Researcher Award.

Research Sites

This study includes undergraduate students who were enrolled in online or hybrid FYW classes at one of four universities in the United States. Institution A is a four-year mid-Atlantic public university with over 12,000 undergraduate and graduate students at the time of this writing. Twenty-one percent of the students at this institution report as minorities and 5% as international. The average household income is $80,500. Institution B is a regional campus of a large, Midwestern university with an eight-campus system; it has an enrollment of about 5,000 students. Fourteen percent of the student body is characterized as minorities or international, and the average household income is $60,000. Institution C is a large, public research university in a metropolitan area of the Rocky Mountain region with over 32,000 students who have a median household income of $70,000; 28% of students are labeled as minorities and 5% as international. Institution D is a public research university on the East Coast with over 40,000 students with a median household income of $90,000. Forty-three percent of undergraduates identify as minorities and 5% as international.

Institutions A, B, and C require a two-course writing sequence in which students are expected to take the first course in their first semester and the second course in their second or third semester, and the courses aren't themed. Institution A's first course focuses on responding to the rhetorical situation in a variety of

genres; Institution B focuses more broadly on the writing process; and Institution C emphasizes reading and writing practices for participating in academic conversations. The second course at Institution A focuses on research writing, Institution B's second course emphasizes both argument and research writing, and Institution C's course focuses on developing information literacy and constructing academic arguments. Unlike the other institutions, at Institution D, students take one writing course in their first year. The course focuses on rhetorical theory, inquiry, revision, reflection, research, and critical reading; the course isn't themed.

A variety of writing courses are represented in this study, including hybrid and online first-, second-, or third-semester writing taught by graduate students, part- and full-time lecturers, and tenure-track faculty. Throughout the manuscript, we use the term "first-year writing" or "FYW" to refer to all of the courses in this study. (Some scholarship might also use the term "first-year composition" or "FYC," which we're also including in our use of FYW.) While the diversity of contexts poses challenges, we also see it as a strength, given our project's goals of developing a heuristic that can be applied widely.

Participant Demographics

Following is self-reported demographic information for the participants, all of whom chose their own pseudonyms. In total, our study included nine instructors—seven who used she/her pronouns, one who used he/him pronouns, and one who used "no specific pronouns." One instructor was from institution A, two instructors were from institution B, two were from institution C, and four were from institution D. Six instructors had fewer than six years of experience teaching overall, and three had more than ten years' teaching experience. Seven instructors had one-to-two years of experience teaching hybrid or online classes, and two instructors had six-to-eight years of experience teaching hybrid or online classes. Six instructor participants were graduate students, two were lecturers, and one was an associate professor. Three of our instructor participants were born outside of the United States.

Our study also included twenty student participants—ten used she/her pronouns, ten used he/him pronouns, and zero identified as non-binary. No students participated from institution A, five were from institution B, five were from institution C, and ten were from institution D. Three students were high school seniors taking FYW through a dual-college-credit program (aged 18 or older), ten were first-year students, two were sophomores, one was a junior, three were seniors, and one was unsure of his standing but offered that he had 40 credit hours and was returning to college after several years.

Table 2.1 presents demographic information for each participant, including their institution, chosen pseudonym, self-reported pronouns and racial/ethnic identity, instructor or student role, teaching experience (when applicable), course modality, and job title or class standing and major.

Table 2.1. Self-Reported Participant Demographic Information

Institution	Participant Pseudonym, Pronouns, and Racial/Ethnic Identity	Role	Experience Teaching or Student in Instructor's Class	Course Modality (H = hybrid, OL = online)	Title or Standing and Major
A	Joy (she/her) White	Instructor	6 years total, 2 years H/OL	OL	Graduate student teacher
B	Sofia (she/her) White	Instructor	14 years total, 6 years H/OL	OL	Associate professor
	Courtney (she/her) White	Student	Sofia's class	OL	Sophomore, nursing
	Ada (she/her) White	Student	Sofia's class	OL	High school senior
	Joel (he/him) White	Student	Sofia's class	OL	High school senior
	Emily (she/her) White	Student	Sofia's class	OL	High school senior
B	Allison (she/her) White	Instructor	2 years total, 1 year H/OL	OL	Graduate student teacher
	Jordan (she/her) African American	Student	Allison's class	OL	Senior, hospitality management
C	Jamie (she/her) White	Instructor	2 years total,1 year H/OL	OL	Graduate student teacher
	Gordon (he/him) White	Student	Jamie's class	OL	Senior (5th year), pre-engineering
	Peter (he/him) White	Student	Jamie's class	OL	Unsure (40 credits), mechanical engineering
C	Sarah (she/her) White	Instructor	1 year total, 1 year H/OL	H	Graduate student teacher
	Jake (he/him) White	Student	Sarah's class	H	Senior, biomedical engineering
	Jane (she/her) White	Student	Sarah's class	H	First-year, graphic design
	John (he/him) White	Student	Sarah's class	H	First-year, psychology and criminology

Institution	Participant Pseudonym, Pronouns, and Racial/Ethnic Identity	Role	Experience Teaching or Student in Instructor's Class	Course Modality (H = hybrid, OL = online)	Title or Standing and Major
D	Betsy (she/her) White	Instructor	17 years total, 1.5 years H/OL	H	Senior lecturer
	Sam (she/her) Middle Eastern	Student	Betsy's class	H	Junior, government and journalism
	Isaiah (he/him) African American and Hispanic	Student	Betsy's class	H	First-year, criminology and criminal justice
D	Percy (no specific pronouns) White	Instructor	10 years total, 8 years H/OL	H	Lecturer
	Steven (he/him) Korean	Student	Percy's class	H	First-year, finance and information systems
	JD (he/him) White	Student	Percy's class	H	First-year, civil engineering
D	Jeffery (he/him) White	Instructor	5 years total, 2 years H/OL	H	Graduate student teacher
	Brooke (she/her) White	Student	Jeffery's class	H	First-year, undecided
	Hannah (she/her) White	Student	Jeffery's class	H	First-year, chemical engineering
	Daniel (he/him) Asian	Student	Jeffery's class	H	First-year, aerospace engineering
D	Quinn (she/her) Iranian and White	Instructor	4 years total, 2 years H/OL	H	Graduate student teacher
	Geoff (he/him) Asian	Student	Quinn's class	H	First-year, business
	Catherine (she/her) White	Student	Quinn's class	H	First-year, marketing
	Snow (she/her) Chinese	Student	Quinn's class	H	Sophomore, computer science and economics

Case Studies: Instructors, Students, and Assignments

In addition to analyzing interviews and materials from our full dataset, in our chapters we draw on foundational writing studies scholarship that includes case study methodology (Hillocks, 1986; Yancy, 1998). Our *cognitive presence*, *social presence*, and *teaching presence* chapters each include case studies of three instructors and their students, who were also included in Table 2.1. We realized early on in our analysis that we wanted to delve further into particular course sections that would provide examples and nuance related to each aspect of the CoI framework. Our selection criteria prioritized instructors from different institutions whose courses were in differing modalities and whose peer review designs, accompanying materials, and student interviews were robust and varied: these instructors were Sofia (Institution B), Sarah (Institution C), and Quinn (Institution D).

Sofia

An associate professor, Sofia was a White, Eastern European woman (she/her) who had been teaching first-year writing for 15 years at the time of this study and had been teaching the course asynchronously online for six years. Her class included both traditionally enrolled college students as well as a substantial number of dual credit high school students, which influenced the types of interactions that occurred during peer review. The four of Sofia's students who participated in the study were all from towns near the campus where Sofia taught: Courtney (she/her) was a White sophomore in the university's nursing program, while Ada (she/her), Emily (she/her), and Joel (he/him) were White high school students in the dual enrollment program.

In Sofia's class, the third and final writing project involved composing a short research paper, in which students responded to one of three prompts about college education that were based on class readings. The research paper was required to be 2,000–2,300 words in length and use four to five sources. After producing an outline for instructor feedback in week 12, students composed a draft in week 14 in order to receive feedback from classmates and the instructor before revising the text for final submission in week 16. Our observation took place during the second peer review of the semester and only peer review for this assignment.

Sarah

At the time of the observation, Sarah (she/her) was a graduate student in an MA program who had been teaching for two semesters. Identifying as a White woman, Sarah had grown up in the region where she was attending graduate school. She structured her hybrid course so that all assignments were submitted online and all peer review and individual instructor conferences were conducted face-to-face. Three of Sarah's students agreed to be observed and to participate in a follow-up interview: Jake (he/him) was a fifth-year biomedical engineering

student from the Rocky Mountain region with substantial experience with peer review and research writing. Jane (she/her), also from the Rocky Mountain region, was a first-year graphic design student. John (he/him) was a first-year psychology and criminology student from the East Coast. Each of these three students identified as White.

Sarah's students were composing a research essay on any topic of their choosing and at the time of our observation and interview had already completed a topic proposal and annotated bibliography related to their research. The day of the class observation, students were assigned to have a first draft of their research text ready for peer review. This would be their third peer-review workshop of the semester. Following the peer-review workshop, students would receive additional feedback from Sarah and submit a final draft.

Quinn

At the time of the observation, Quinn (she/her), a White woman raised in the Middle East, was a doctoral student studying at a large, public, Research 1 (R1) university in the Northeast. Quinn had been teaching FYW for four years and had been teaching in the hybrid format for two-and-a-half years. This case study included three of Quinn's students: Catherine (she/her) was a White, first-year marketing major, and Geoff (he/him) was an Asian, first-year business major; both Catherine and Geoff grew up within half an hour of the university. Snow (she/her) was an Asian, second-year computer science major and an international student from China.

The peer-review workshop we observed supported an eight-to-ten-page research paper; students selected their own topic—something from current events that was contestable—and applied a stasis-theory style of questioning to develop their arguments. Students completed smaller assignments (an inquiry paper and an argument paper) that prepared them for the project. The peer-review workshop included two synchronous sessions: one took place in the physical classroom and one took place virtually.

Coding and Analysis

While our data and analyses are somewhat different for each chapter, our coding of the data generally followed a similar procedure. To begin, we individually identified initial coding categories among a representative dataset before collaboratively drafting a codebook that we used to code each dataset (e.g., interviews or artifacts) during a second pass of thematic coding (as per Vaughn & Turner, 2016). During this round of coding, two researchers were assigned to code each dataset in Dedoose, a cloud-based qualitative coding application, and discussed differences in coding, coming to an agreement on a single code for each instance. Worth noting is that we were more concerned with the accuracy (i.e., validity) of our coding than with the consistency (i.e., reliability) of our

coding, which was achievable via negotiating all codes. This approach follows Peter Smagorinsky's (2008) recommendations for collaborative coding, which involve reaching "agreement on each code through collaborative discussion rather than independent corroboration" (p. 401), valuing collaborative discussion (as opposed to strictly calculated inter-rater reliability), and providing "a means through which levels of expertise may emerge through the process of discussion in relation to data" (p. 402). We found that our discussions of the data were particularly rich, given our varying backgrounds and experiences with empirical research.

Within each chapter, we provide more detail about our coding and analysis of the data. Here, we provide a brief overview of our data, coding, and analysis choices. Table 2.2 shows which datasets we analyzed for each chapter.

Table 2.2. Datasets and Chapters

Dataset	**Chapter**		
	Cognitive Presence	**Social Presence**	**Teaching Presence**
Instructor interviews	X		X
Student interviews	X	X	X
Observational notes	X	X	X
Instructional materials (e.g., rubrics, worksheets)			X
Student artifacts (e.g., essay drafts, feedback)	X		

We analyzed student interviews and observational notes for all three analysis chapters; the *cognitive presence* chapter additionally reports on instructor interviews and student artifacts, and the *teaching presence* chapter reports on instructor interviews and instructional materials.

Cognitive Presence Analysis

Our data analysis for the *cognitive presence* chapter involved two stages. First, we qualitatively coded student and instructor interview data to identify the participants' perceived goals of peer review. Second, we examined student artifacts (first drafts, peer feedback, revised drafts) for evidence of students experiencing the four phases of practical inquiry (*triggering event*, *exploration*, *integration*, and *resolution*).

We first uploaded all student and instructor interview transcripts to Dedoose and coded the responses, focusing on the interview questions that asked

participants about the purpose of peer review (sources of the data are indicated in parentheses):

- How are you measuring students' achievement of the goal? (Instructor interview 1)
- What do you feel is the purpose of peer review? (Instructor interview 1)
- Do you feel like there's anything unique about peer review in an online/hybrid course? (Instructor interview 1)
- How did the peer review for that assignment go? (Instructor interview 2)
- What would you say your students gained from this workshop? (Instructor interview 2)
- What was your experience like in the workshop? (Student interview)
- How do you feel about giving feedback to your peers? How do you feel about receiving feedback? (Student interview)
- Did you use the peer comments as you were revising? (Student interview)
- Would you say that you feel more confident about your writing as a result of peer review? (Student interview)
- Would you want to have peer review the next time you are writing an essay/paper/document? (Student interview)

As described previously, we first individually coded the interviews and then collaboratively negotiated all disagreements. While the purpose of this process was to achieve agreement on codes rather than to achieve inter-rater reliability, we still calculated overall code count agreement and excerpt agreement. For code counts, we calculated the total number of agreements out of the total number of codes as used by two researchers. For example, if one researcher coded an excerpt as "Application of Feedback > Yes" and "Assessment of PR WS > Unsuccessful," that was counted as four code applications. If, on the same excerpt, the second researcher coded only "Application of Feedback > Yes," we had a total of six codes and an agreement of four out of six. For excerpt agreement, we calculated our perfect agreement out of the total number of excerpts. The previous example would count as one excerpt with an agreement of zero out of one. Prior to the collaborative second-pass coding, our overall applied code count agreement was 60 percent (.599) and our excerpt agreement was 37 percent (.369). After the collaborative second-pass coding, our agreement was 100 percent (because we negotiated all codes until we reached consensus).

While we identified seven parent codes among the interview transcripts, Chapter 3 focuses on one code most aligned with *cognitive presence* and with the potential to provide evidence of *resolution*: *purpose of peer review/gained from peer review*. What we include here is our final codebook after many revisions, discussions, and iterations. In total, we identified eight child codes associated with that parent code, which are listed along with definitions in Table 2.3: *gain fresh perspective*, *learn from seeing peers' writing, improve text*, *earn higher grade*, *learn writing process*, *build community*, *meaning-level concerns*, and *surface-level concerns*.

Table 2.3. Cognitive Presence Codes and Definitions

Parent Code		**Child Code**	
Name	**Definition**	**Name**	**Definition**
Purpose of peer review/Gained from peer review	Participant answered or discussed their belief about a goal of peer review or what they gained from participating in the activity.	Gain fresh perspective	Participant mentioned a fresh perspective or considering other ideas they wouldn't have on their own.
		Learn from seeing peers' writing	Participant mentioned seeing/reading their classmates' writing/ essays.
		Improve text	Participant mentioned writing a better essay/ product.
		Earn higher grade	Participant stated that the goal of peer review is to help them earn a higher grade on their final project.
		Learn writing process	Participant mentioned learning writing strategies related to the writing process.
		Build community	Participant stated that the goal of peer review is to develop community among classmates.
		Meaning-level concerns	Participant mentioned concepts such as ideas, argument, organization, structure, paragraph focus, transitions, and/or a non-specific reference such as revision.
		Surface-level concerns	Participant mentioned concepts such as citations, grammar, style, sentence-level wording, and/or a non-specific reference such as editing.

To examine peer feedback and whether student authors incorporated that feedback, we further analyzed three case studies. We identified student suggestions made asynchronously by writing on fellow students' texts using track changes and/or marginal comments (for Sofia's and Quinn's students) or synchronously and verbally in a transcript of an in-person workshop (for Sarah's students). We grouped those suggestions into two categories: *meaning-level feedback* and *surface-level feedback*. We further categorized the meaning-level suggestions into six subgroups that described the nature of the suggestion: *explain/extend*, *overall argument/point*, *praise*, *paragraph focus/organization*, and *source integration*. We organized the surface-level suggestions into five subgroups: *word choice/phrasing*, *spelling*, *punctuation/capitalization*, *praise*, and *citation/sources*.

Our final step was to examine student revisions. We used the Compare Documents tool in Microsoft Word to examine revisions students made between the drafts they submitted for peer review and their final drafts of their projects. We looked at these revisions alongside the meaning- and surface-level feedback the author had received from peers. When we identified a correlation between the feedback and the revision, we concluded that the feedback functioned as a *triggering event* that prompted sufficient *exploration* and *integration* to culminate in *resolution*.

Social Presence Analysis

To qualitatively examine the concept of *social presence*, we coded student interviews. Unlike our analysis of the data for the *cognitive presence* chapter, which was purely open/descriptive, our analysis of the *social presence* data was guided by a pre-existing list of categories that we developed in an earlier study: *social learning*, *social perceptions*, *social comfort*, and *attitudes* (Stewart et al., 2021). We divided the 20 student interviews among the four of us and engaged in open coding to create child codes for each pre-established category. After meeting to negotiate child codes, we each coded five different student interviews to test the codebook before coding the entire dataset in Dedoose. The first three authors coded the entire dataset in three groups of two such that each student interview was assigned two coders. Each pair then met to negotiate and finalize codes. In total, we coded 233 excerpts related to *social presence* that included 866 total codes; we negotiated 46 percent of those codes. When negotiating, we found that any disagreements related to *social perceptions* and *social learning* were easily resolved by adding information to existing codes or choosing not to code excerpts that didn't relate directly to *social presence* or to the observed peer-review workshop. Ultimately, we chose not to report on codes related to *social comfort* or *attitudes* because those concepts became increasingly complicated and ill-defined as we negotiated. As with all coding and negotiating in each of these chapters, our goal wasn't to achieve inter-rater reliability but to obtain an agreed-upon code count.

After determining that we were unable to measure *social comfort* or *attitudes* qualitatively, we coded and negotiated again, ultimately producing six child codes for *social perceptions—physically together, virtually together*, *familiarity with peers' topics*, *does not want or need to know peers*, *wants to know peers*, and *lack of interaction*—and four child codes for *social learning—students believed they experienced social learning*, *social learning hindered because better with non-classmates*, *social learning hindered because feedback unhelpful*, and *social learning hindered because workshop was perfunctory*. These codes are listed along with definitions in Table 2.4.

Table 2.4. Social Presence Codes and Definitions

Parent Code		**Child Code**	
Name	**Definition**	**Name**	**Definition**
Social learning	Participant indicated that interacting with classmates (e.g., discussions, feedback) improved their writing and/or helped them develop as a writer.	Students believe they experienced social learning in class	Participant stated outright that interacting with peers in their specific class helped them learn.
		Students perceive social learning as hindered	Feedback unhelpful—Participant mentioned that feedback was lacking or unhelpful.
			Workshop was perfunctory—Participant mentioned participation in the peer workshop was merely for points or a grade.
			Better with non-classmates—Participant mentioned that they sought feedback from someone outside of their classmates.
Social perceptions	Participant indicated "feeling real" or having a "social perception" of classmates.	Social perceptions of peers	Familiarity with peers' topics—Participant indicated having a sense of who peers were because of essay topics or discussions (e.g., same groups or discussion forums).
			Virtually together—Participant pointed to tools or activities that facilitated online interaction (e.g., worksheet, Google Doc, discussion forums).
			Physically together—Participant indicated knowing peers because they were in the same physical space.

Parent Code		Child Code	
Name	**Definition**	**Name**	**Definition**
		No social perception of peers	Lack of interaction—Participant said that they do not interact with their peers in their class.
			Doesn't want or need to know peers—Participant indicated cognitive dissonance with the word "relationship" and/or that they did not need to know or want to know their classmates in order to participate/learn.
			Want to know peers—Participant said they did not know their peers as individuals but would have liked to know them.

Teaching Presence Analysis

To analyze data in relation to *teaching presence*, we first collaboratively created descriptive codes for the instructor and student interviews that described the interactions and materials affiliated with pre-workshop, during-workshop, and post-workshop activities. We list and define these codes in Table 2.5. Each transcript was coded twice before we negotiated disagreements; in total, we negotiated 44 percent of codes. Agreement after negotiation was 100 percent. This process enabled us to create an overview of how each workshop used asynchronous and synchronous activities (see Figure 5.2 in Chapter 5) and to then categorize those activities according to the three elements of *teaching presence*: *instructional design*, *direct instruction*, and *discourse facilitation* (see Figure 5.3 in Chapter 5).

After establishing this broad view of the course/activity designs represented in our full dataset, we turned our attention to the specific case studies. Our goal was to question whether our participants' *instructional design*, *direct instruction*, and *discourse facilitation* were creating intentional and explicit opportunities for students to engage *social* and *cognitive presence.* We drew on our findings from the *cognitive presence* chapter to question whether the top three intended goals for peer review (*gain fresh perspective*, *learn from seeing peers' writing*, *improve text*) were apparent in the *instructional design* choices and *direct instruction* behaviors. We drew on findings from the *social presence* chapter to question if and how the instructor guided students towards developing *social perceptions* of their peers or engaging in *social learning* during *discourse facilitation.*

Table 2.5. Teaching Presence Instructional Design Codes and Definitions

Activity	Activity Definition	Code	Code Definition
Asynchronous pre-workshop	Whole-class or group activities happening before the peer workshop that do not occur at the same time.	Email/ announcement	Instructor and/or students communicate via email or via announcements before the peer workshop about peer workshop expectations.
		Discussion forum	Students (and/or instructor) communicate on a discussion forum before the peer workshop about peer workshop expectations.
		Modeling/ practice	Instructor asynchronously guides students in how to conduct a peer-review workshop as a class by modeling and/or practicing peer review techniques.
		Readings	Instructor provides readings about peer review to help introduce students to the concept before the workshop.
		Rubric	Instructor provides a rubric to students before the peer workshop to detail expectations.
		Worksheet/ template	Instructor provides a worksheet or template with questions that students will answer during the peer-review workshop.
		Video	Instructor provides a video lecture about peer review prior to the workshop.
		Instructor feedback on draft	Instructor provides asynchronous feedback to the draft (i.e., written comments) before the peer-review workshop.
Synchronous pre-workshop	Simultaneous whole-class or group activities occurring before the peer workshop.	Discussion	Instructor and students discuss peer review (i.e., concept and expectations) synchronously as a class before the workshop.
		Modeling/ practice	Instructor synchronously guides students in how to conduct a peer-review workshop as a class by modeling and/or practicing peer review techniques.

Activity	Activity Definition	Code	Code Definition
		Instructor feedback on draft	Instructor provides synchronous feedback to the draft (i.e., written comments) before the peer-review workshop.
Asynchronous workshop	Peer workshop that does not include simultaneous or real-time interaction.	Discussion forum	Peer workshop occurs asynchronously where students exchange essays and provide feedback on a discussion forum.
		Email	Peer workshop occurs asynchronously where students exchange essays and provide feedback via email.
		Google Docs	Peer workshop occurs asynchronously where students exchange essays and provide feedback using Google Docs.
		LMS* assigned	Peer workshop occurs asynchronously where students exchange essays and provide feedback using the LMS*, which also assigns groups automatically.
		Rubric	Peer workshop occurs asynchronously where students exchange essays and provide feedback using a rubric.
		Marginal comments	Peer workshop occurs asynchronously where students exchange essays and provide feedback by including marginal comments.
		Instructions	Students receive asynchronous instructions or directions about the peer workshop process and expectations (e.g., bulleted list of tasks at the top of a Google Doc).
		Instructor intervention	During asynchronous peer workshop, the instructor provides feedback to students either 1:1 or 1:many (e.g., provides feedback on peer review discussion forum).
		Instructor feedback on draft	Instructor provides asynchronous feedback to the draft (i.e., written comments) during the workshop.

Activity	Activity Definition	Code	Code Definition
Synchronous workshop	Peer workshop that includes simultaneous or real-time interaction.	F2F**	Peer workshop occurs synchronously where students exchange printed essays and provide feedback in handwriting.
		Google Docs	Peer workshop occurs synchronously where students exchange essays and provide feedback using Google Docs.
		Worksheet	Peer workshop occurs synchronously where students exchange essays and provide feedback by filling out a form given by the instructor.
		Instructions	Students receive instructions or directions about their synchronous peer workshop process and expectations (e.g., bulleted list of tasks at the top of a Google Doc).
		Marginal comments	Peer workshop occurs asynchronously where students exchange essays and provide feedback by including marginal comments.
		Instructor intervention	During synchronous peer workshop, the instructor provides feedback to students either 1:1 or 1:many (e.g., walks around the room, visiting each group to talk).
		Instructor feedback on draft	Instructor provides asynchronous feedback to the draft (i.e., written comments) during the peer-review workshop.
Asynchronous-post-workshop	Asynchronous activities occurring after the peer workshop.	Instructor feedback on peer review	Instructor provides feedback or a grade/score post-workshop either 1:1 or 1:many (e.g., sends a recap email or announcement about the peer-review workshop).
		Instructor feedback on draft	Instructor provides asynchronous feedback to the draft (i.e., written comments) after the peer-review workshop.
Synchronous post-workshop	Simultaneous whole-class or group activities occurring after the peer workshop.	F2F** class discussion	Whole class discusses or debriefs about the peer workshop after it has taken place face-to-face during a physical class.

Activity	Activity Definition	Code	Code Definition
		F2F** class discussion	Small peer review groups discuss or debrief about the peer workshop after it has taken place face-to-face during a physical class.
		Optional F2F** discussion	Students have the option to discuss or debrief about the peer workshop after it has taken place face-to-face in a physical class.
		Video class discussion	Whole class synchronously discusses or debriefs about the peer workshop after it has taken place via video and not in the same geographic location.
		Instructor feedback on peer review	Instructor provides feedback or a grade/score post-workshop either 1:1 or 1:many (e.g., discusses the strengths and weaknesses of the peer-review workshop with the entire class).
		Instructor feedback on draft	Instructor provided synchronous feedback to the draft (i.e., conference) after the peer-review workshop.
No post-workshop activity	No whole-class or group activities occurring after the peer workshop.		

**learning management system*
***face-to-face*

Limitations

We attempted to control for potential negative effects on validity by ensuring confidentiality via pseudonyms and anonymizing data. However, we also recognize the potential influence of social desirability, considering that participants speaking with writing studies researchers might have felt that, for us, a "correct" response would be that peer review is important or useful or that a peer workshop we observed was successful. In addition, even though we collected our data from participants at four different institutions across the United States, we acknowledge that a limitation of our data is that we could have included a larger variety of institutions (e.g., two-year colleges, historically black colleges and universities (HBCUs), Hispanic-serving institutions (HSIs),

tribal colleges and universities). Our participant population also skews White and woman-identifying.

Data collection for this project took place prior to the COVID-19 pandemic and subsequent proliferation of emergency remote teaching; it also occurred before generative AI tools like ChatGPT were readily available. While these conditions aren't necessarily limitations, they are important to consider when reading our findings and applying them to future research and/or teaching.

Chapter 3. Cognitive Presence: Peer Review Learning Goals and Application

In this chapter, we consider the extent to which our student participants experienced *cognitive presence* within their peer-review workshops. We first examined interview data to determine student and instructor perceptions of the purpose of peer review. This step was important because it established what learning was expected before we attempted to measure if that learning occurred. We then analyzed students' drafts, peer feedback, and revisions for potential evidence of *cognitive presence*. Using Dewey's (1910) model of practical inquiry, we looked for *triggering events* in the feedback students received from peers, and we looked at the revisions students made between drafts for evidence of *resolution*; when we found correlations between feedback and revision, we concluded that students had experienced sufficient *exploration* and *integration* for the peer-review workshop to function as a community of inquiry. These findings indicate that *cognitive presence* has the potential to be realized during the peer review process when students read their peers' essays, interact synchronously and/or asynchronously to provide feedback, and/or apply feedback when revising.

History and Theory of *Cognitive Presence*

In a community of inquiry, *cognitive presence* is the end goal; it occurs when *teaching presence* creates an environment that facilitates sufficient *social presence* to enable collaborative learning and knowledge co-construction. In such a community, students learn *from* and *because of* one another. The original CoI researchers (Garrison et al., 1999) operationalized the concept of *cognitive presence* via Dewey's (1910) four-phase model of practical inquiry: *triggering event exploration*, *integration*, and *resolution*. Figure 3.1 is a simplified approximation of Garrison et al.'s (1999) visual of Dewey's model.

Triggering events initiate the learning process, guiding students to engage in *exploration*. As students share the results of their *exploration* with peers, they begin to experience *integration*, which requires their understanding of a concept to shift in response to the knowledge others have shared. *Resolution* is the culmination of this process when students demonstrate or apply their newly constructed knowledge. The process is iterative and non-linear, with learners shifting between the four phases as they engage in both individual and collaborative thinking.

Much of the previous research on *cognitive presence* has involved coding asynchronous discussion forums for the four phases of practical inquiry (e.g., Alwafi, 2022; Joksimovic et al., 2014; Rolim et al., 2019), and/or utilizing the

CoI survey (Swan et al., 2008) to examine the relationship between *cognitive presence*, the other presences, and factors such as perceived/actual learning and student satisfaction (e.g., Martin et al., 2022; Shea & Bidjerano, 2009; Wertz, 2022). Across this literature, scholars have consistently offered evidence for the role of *teaching presence* in facilitating *cognitive presence* (Moore & Miller, 2022). When activities are deliberately designed to lead students through the four phases of practical inquiry, learners are more likely to experience *cognitive presence*.

CoI research has produced more evidence of the first three phases of practical inquiry than of the fourth phase, *resolution* (Akyol & Garrison, 2011; Moore & Miller, 2022). Scholars have often speculated that *resolution* has not been evident because the design of the activities (primarily discussion forums) has not required or invited *resolution*. Accordingly, CoI researchers have looked for resolution in final course projects (Kim, 2016), and/or have recognized that it may not occur until after the course is complete (Galikyan & Admiraal, 2019). Writing studies scholarship on learning transfer has provided ample support for this latter point, emphasizing *resolution* via transfer to other classes (Downs & Wardle, 2007) and to professional settings (Brent, 2011). Peer review, with its focus on students learning from one another and incorporating that learning into writing revisions, may hold more potential than other types of activities (like discussion forums) for *resolution* within the course itself.

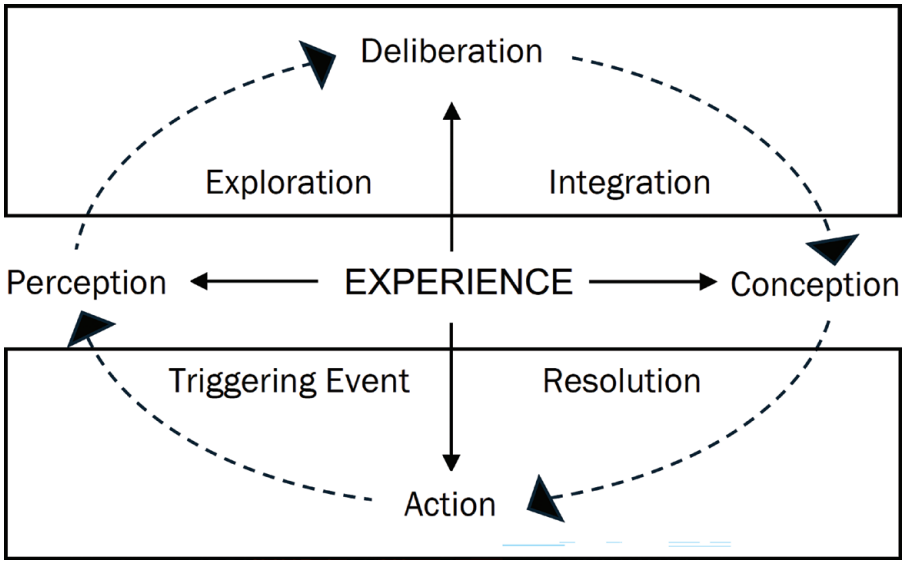


Figure 3.1. Dewey's Model of Practical Inquiry. Adapted from Garrison et al. (1999).

Contributing to both CoI and writing studies scholarship, our project's examination of peer review offers a unique opportunity to study *cognitive presence*. When a peer-review workshop functions as a community of inquiry, students encounter a range of potential *triggering events*, including the giving and receiving of feedback. The feedback they receive, and/or the process of giving feedback to peers, can prompt an *exploration* of their own prior and emerging knowledge of writing concepts (e.g., argument structure, paragraph focus, transitions between ideas) as well as their knowledge of their own and their peers' chosen writing topics. When students begin the process of making decisions about how to revise in response to the peer-review workshop, they experience *integration*; they negotiate multiple perspectives (their classmates', their own, and, sometimes, their instructor's) and construct new knowledge. Finally, they can achieve *resolution* within and after the workshop when they apply this new learning to produce a final draft or to articulate what they have learned from reading their classmates' essays; they also can achieve *resolution* outside of the peer-review workshop if they apply what they have learned to other assignments, classes, and contexts. Unlike many of the discussion forums that have been the focus of prior CoI research, the nature of peer-review workshops creates an opportunity for students to experience all four phases of practical inquiry. Our study specifically focuses on *cognitive presence* that occurs when students revise in response to feedback, demonstrating that peer feedback can function as a *triggering event* that prompts sufficient *exploration* and *integration* to result in revisions that demonstrate *resolution.*

Anticipated *Resolution:* Beliefs About Learning from Peer Review

Before looking for evidence of *cognitive presence* in students' drafts and revisions, we analyzed student and instructor interview statements about the purposes of peer review. Our goal was to learn what students and instructors believed should be the outcome or *resolution* of peer review. We operationalized *resolution* as *learning*, which Dewey (1910) and CoI scholars (Garrison et al., 1999) have defined as applying newly constructed knowledge. In our study, we examined *resolution* in a final product (e.g., revising in response to feedback); other studies might look for *resolution* elsewhere, such as in a reflective document demonstrating an evolving understanding of writing or of the self as a writer.

This section reports on what instructors in our study said was the purpose of peer review, including what they believed or hoped their students would gain and what students said they learned from peer review during synchronous and asynchronous activities. We identified six prevailing categories that suggested what these nine instructors and 20 students believed were anticipated *resolutions* of peer review. Figure 3.2 visualizes those six categories and the number of instructors and students who mentioned each.

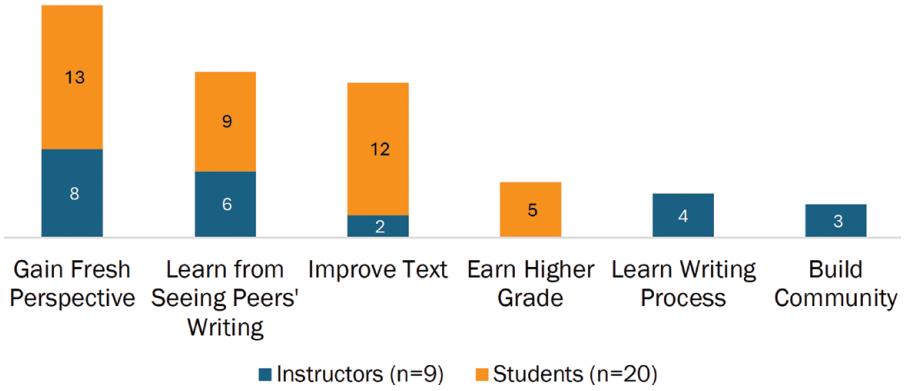


Figure 3.2. Anticipated Resolutions from Peer Review.

The stacked bar chart in Figure 3.2 depicts how many students and instructors mentioned the six anticipated resolutions from peer review: *gain fresh perspective* (mentioned by 13 students and eight instructors); *learn from seeing peers' writing* (mentioned by nine students and six instructors); *improve text* (mentioned by twelve students and two instructors); *earn higher grade* (mentioned by five students and no instructors); *learn writing process* (mentioned by no students and four instructors); and *build community* (mentioned by no students and three instructors).

Three categories were mentioned by both instructors and students, and three categories were mentioned by only instructors or students. While this chapter will focus on the categories mentioned by both groups, we include the three less frequently mentioned categories to demonstrate the potential disconnect between student and instructor expectations: only students mentioned earning a higher grade, and only instructors mentioned learning about the writing process and building community.

The most anticipated *resolution* from peer review was *gain fresh perspective*. With eight instructors (out of nine) and 13 students (out of 20) mentioning this category, this outcome seemingly was equally apparent to students and instructors. Both students and instructors characterized *gain fresh perspective* as encountering new ideas or different opinions, but six instructors further discussed this category in relation to students receiving feedback beyond their instructor. For some instructors, receiving feedback beyond the instructor additionally served as a strategy to divide or share labor.

Learn from seeing peers' writing was the next most anticipated *resolution*, with six instructors and nine students discussing this outcome as something gained from participating in peer review. Instructors and students both described this benefit by explaining that seeing their classmates' texts helps students with their own topics and self-assessment. Students also mentioned comparing their essays to their peers' essays for more practical purposes like formatting.

The third most anticipated *resolution* was *improve text*, with two instructors and twelve students discussing this category during their interviews. Unsurprisingly, nearly half of the students interviewed articulated that improving their text was a purpose of peer review. For instructors, "improvement" necessitated rethinking and rewriting, suggesting that peer review creates opportunities for improving texts via feedback and revision. For students, however, "improve text" translated to a better final product and to meeting requirements like word count.

In addition to the three most anticipated *resolutions* from peer review, a few of the participants in our study mentioned *earn higher grade*, *learn about writing process*, and *build community*. *Earn higher grade* was mentioned by five students and no instructors, while *learn about writing process* was mentioned by four instructors and no students, suggesting a possible disconnect between what students and instructors regard as a more important outcome of peer review: product or process. Students tended to point to earning a higher grade, whereas instructors pointed to helping students learn that writing is a process. Another concept mentioned only by instructors (n=3) was *build community*. This suggests that while instructors saw creating a sense of community as valuable to students' learning, students might have viewed community as more of a means to an end—again demonstrating the different focus between product (for students) and process (for instructors). Combined with the differences in student versus instructor definitions of "improve text," this data suggests that instructors might intend for the *exploration* and *integration* that leads to *resolution* to be more robust than what students who focus on word count or grades might expect.

Anticipated *Resolution* in the Case Studies

In what follows, we take a closer look at the three most anticipated resolutions from peer review—*gain fresh perspective*, *learn from seeing peers' writing*, and *improve text*—and how they featured among our case studies with Sofia, Sarah, Quinn, and their students. Our participants' three most anticipated resolutions from peer review, as well as examples of how our case study instructors and students understood and interpreted those concepts, are included in Figure 3.3.

This chart includes four boxes along the left, with one box for instructors and one box for each of the three instructors' respective students (Sofia's students, Sarah's students, and Quinn's students). Across the top of the chart are the three anticipated resolutions (*gain fresh perspective*, *learn from seeing peers' writing*, and *improve text*), and the middle of the chart contains information about how the instructors and students interpreted each outcome, details about which follows. For example, instructors Sofia and Quinn understood "gain fresh perspective" as "feedback beyond instructor" and students Jake, John, a Jane understood "improve text" as connected to "word choice."

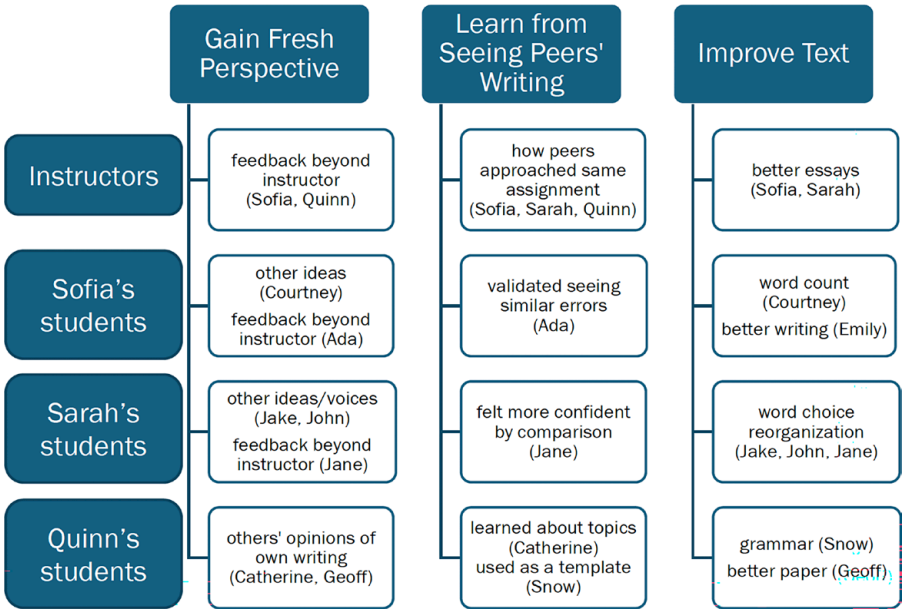


Figure 3.3. Anticipated Resolutions: Case Studies.

Gain Fresh Perspective

Most of the case study participants noted that the process of receiving feedback came with the benefit of gaining a fresh perspective. Articulating a common sentiment among students, Catherine, in Quinn's class, said, "I like to see what other people think about my writing, because … when I'm reading it, it makes so much sense to me because it's coming from my head …. But … I just like to see if what I'm writing actually makes sense."

Similarly, in Sarah's class, both Jake and John discussed gaining a fresh perspective. John shared in his interview, "Whether I use that opinion or not, it's nice to get someone else's, you know, ideas and thoughts on your paper." Jake commented similarly: even though he maintained that his classmates weren't his intended audience, he said, "I think it's always helpful to get other people's perspectives." Sofia's student Courtney also mentioned receiving "new ideas" from readers and explained the usefulness of incorporating what Sofia called an "author's note" in guiding peer feedback, saying, "When you have an author's note, they really try to pay attention to what you, what the writer thinks they need help with." This emphasis on others' perspectives indicates that the participants in this study viewed peer review as an opportunity for *resolution* that explicitly involves both *exploration* and *integration*.

For most participants, the *exploration* and *integration* that led toward the *resolution* of *gain fresh perspective* was concretely connected to the peer doing the

review—the writer's *exploration* and eventual decisions about *integration* focused on how to revise based on this specific reader's engagement with their text. For Quinn, an instructor, *fresh perspective* was also associated with the broader concept of audience, revealed by her comment that "the big focus of the course is knowing your audience and understanding how your essay looks to an audience." Quinn's student Geoff concurred, explaining, "If I write something, I think, like, 'it's good.' But if someone else were to read it, they'd obviously find, like, certain things that you wouldn't, like, pick up on." Quinn also implied that the most important audience was the instructor and that part of the goal of peer review was to prepare the paper for that audience: "This is a great way for students to see what does their paper look like before an audience—before the instructor reads it." From this perspective, *resolution* not only involves making revisions that will address a specific reader's comment but also making revisions that will positively impact future readers (such as the instructor).

The importance of gaining a fresh perspective was prominent among these instructors and their students and demonstrates how the first three phases of *cognitive presence* create a path towards *resolution*: receiving feedback (*triggering event*) can result in the benefit of new ideas and different opinions (*exploration*/*integration*), which can lead writers to revise their draft in specific ways (*resolution)*. In the latter part of this chapter, we'll look for evidence of that *resolution* in students' revisions between drafts, but it's important to note that evidence of *resolution* can also exist in more process-oriented documents like reflective cover letters.

Learn From Seeing Peers' Writing

In addition to benefiting from receiving feedback, instructors and students also described the process of giving feedback, which facilitated the anticipated *resolution* of *learn from seeing peers' writing*. During the interviews, each of the three instructors discussed that the purpose of peer review was for students to see their peers' writing strategies and how their peers were approaching the same assignment. For example, Sofia explained,

> They look, and they're like, "Whoops, I forgot to do that," or they noted discrepancies between their paper and another paper, right? "Oh, I forgot to put a Works Cited, "you know, and that's a simple example. … So, they think about writing, they think about concepts that we want them to think about, without using the big words that English professors use: flow and cohesion and thesis statement, you know? Yeah, they apply the concepts without realizing that they are applying the concepts, and they see—again, I go back to, they see how other students, other writers, accomplish a particular goal, writing.

Quinn discussed the benefit of learning from peers in similar ways, explaining that the opportunity for her students to see their classmates' writing "helps to relieve some pressure" because "they can understand how other people have approached their assignments," including "where they're at in their writing process," "how they're formatting their arguments," and how they are "communicating with their audience." This was certainly the case for her students Geoff and Snow. Geoff said, "You're not comparing, but, like, you're seeing how … other people write. … I guess you're seeing how, like, yeah, in a sense, like, you're comparing your paper to another paper, just seeing if, like, you feel like you need to go more in-depth into something." Snow similarly explained, "After I read their essay, I know the general structure of the essay, so it can help me improve my essay." Snow additionally noted that as an international student, she especially appreciated the opportunity to learn from seeing her peers' work because "they grew up here … so they are more familiar with such format. So, I think it helps."

Among these students and instructors, *learn from seeing peers' writing* tended to create *triggering events* both practically and conceptually. Practically, students thought about their own writing in comparison to their classmates' writing, and conceptually, they considered reading about other perspectives, ideas, and topics in their classmates' writing. These *triggering events* created opportunities for *exploration* as they compared others' drafts with their own writing. This process can result in opportunities for *integration* and *resolution* for students who decide to make changes to their essays based on what they saw in their peers' essays. If we were to look for that *resolution* in more process-based documents written by these students, it might manifest as a shifting understanding about their writing process or their identity as writers based on what they saw in their peers' drafts.

Improve Text

The final *resolution* most anticipated by the participants in this study was *improve text*. Quinn connected the idea of improving a text to the role of audience in peer review, noting, "The draft workshops are really helpful in being able to have someone who has not done this particular research be able to say, 'Okay, this area is a little bit confusing. I think that this paragraph needs to come earlier because this answers the question I had earlier several paragraphs ago,' things like that." For Sarah and Sofia, an "improved text" was synonymous with "better essays" overall. Emily in Sofia's class and Geoff in Quinn's class echoed this sentiment, describing how feedback resulted in a "stronger paper" or improved writing more generally.

Other students were more specific. Courtney in Sofia's class said, "I was a little short on the word count that I needed, and the student gave me a few ideas." Snow in Quinn's class considered an "improved text" one with fewer grammar mistakes following feedback from classmates whose first language is English: "I like the grammar comments because it's a really helps me a lot …. I will make some

changes because some of my classmates' comments is good and is right because those is really some mistakes in my grammar so I will change it."

None of Sarah's students explicitly mentioned improving their written products during interviews. However, in our observation of their peer workshop, we witnessed the students make recommendations for expanding or reorganizing paragraphs, which suggests that they may have given and received feedback related to *improve text*, even if they didn't describe it in the interviews. For example, Jake pointed out paragraphs in Jane's essay that she could consider reorganizing:

> You talked a lot about the effects of sleep deprivation and habits in youth, but just about every paragraph starts with that but then the paragraph was actually about something else. So, you're using the youth as a lead-in for some other topic, and it would be more beneficial to focus on the youth in part of the paper and the effects of it in youth. And then when you bring into your next key points, focus on that key point and tie it in. … It's just, again, because of the structure of the organization, it's not necessarily where it should be to support the points you're making in the paragraph.

John agreed with Jake and reiterated that Jane should work on reorganizing paragraphs, saying, "But you also talk about young people over here and over here and in between …. So, I feel like maybe this paragraph could go in front of this."

Our case study participants' explanations of the goals and purposes of peer review illustrate how the phases of *cognitive presence* can lead toward *resolution*. In the case of *gain fresh perspective*, feedback from peers and/or instructors (*triggering event*) prompts students to reflect on their writing (*exploration*), which can lead to a re-envisioning of the draft or a re-imagining of their writing process (*integration*) that culminates in revision or in a new understanding of a writing concept (*resolution*). The triggering event for *learn from peers' writing* is different—in this case, the phases of *cognitive presence* are instigated by reading and responding to peers' writing. From there, the process is similar: students experience *exploration* if reading their peers' writing prompts them to reflect on their own written product or writing process or understanding of writing concepts. If this reflection prompts them to change their perspective or revise their draft, then they are experiencing *integration* that leads to *resolution*. The *resolution* of *improve text* could be prompted by either receiving feedback or reading peers' drafts, though most participants in our study characterized receiving feedback as the primary triggering event for *improve text*. The processes of *exploration* and *integration* are similar to those for *gain fresh perspective* and *learn from peers' writing*, but the *resolution* is much more product-oriented, characterized by specific revisions to the draft.

In the following section, we discuss when we saw *resolution*—evidence of *cognitive presence*—as a result of peer review. We do so by analyzing the meaning- and surface-level feedback students offered and received as well as the revisions

they made to their drafts. Our goal is to determine whether peer review *can* function as a community of inquiry, in which students experience all four phases of practical inquiry, including *resolution*. At this stage in the book, we do not differentiate between the type of *resolution* (i.e., *gain fresh perspective*, *learn from seeing peers' writing*, *improve text*). Please see Chapter 5 of this book for a discussion about whether course design created an environment where those specific *resolutions* were likely to be achieved. We also acknowledge that seeking evidence of *cognitive presence* in student revisions limits us to a particular version of *resolution*; other researchers might seek evidence through student reflections or other articulations of what they have learned from the process of peer review.

Evidence of *Cognitive Presence* in Feedback and Revision

The previous section described the anticipated *resolutions* of peer review that students and instructors articulated in their interviews. While *resolution* may take many forms, including developing a writing process or learning about writing concepts or transferring knowledge about writing beyond the FYW classroom, the most observable form of *cognitive presence* in our data is revision in response to feedback. This section first describes the *meaning-level* and *surface-level feedback* students received and the revisions they made between the draft they submitted for peer review and the final draft they submitted to the instructor. We then triangulate this data to reflect on the extent to which the revisions correlate to peer feedback. In the language of CoI, we analyze the extent to which peer feedback functioned as a *triggering event*, prompting *exploration* and *integration*, and culminating in *resolution* via revision.

Meaning- and Surface-Level Peer Feedback

Throughout this section, we differentiate between *meaning-level* and *surface-level feedback* (Baker, 2016; Faigley & Witte, 1981; Sommers, 1980), primarily because the case study participants did so in their interviews. For example, Quinn's student Geoff explained in his interview that he received different types of feedback from his peers, saying, "So, one helps me, like, Catherine, I guess, she more so, like, stays away from grammar, and she kind of helps with, like, analysis, point of view." In contrast, Snow is "more geared towards grammar. She helps me with my grammar." When asked if he preferred one type of feedback over another, he responded "no" and said, "they both work together pretty well, and so it helps." While both *meaning-level* and *surface-level feedback* and revision can result in the four phases of *cognitive presence*, our data suggests that *surface-level* revisions often require less critical thinking and problem solving, which leads us to suspect that *meaning-level* feedback is more likely to facilitate community inquiry.

All nine students received at least one piece of *meaning-level feedback* from their classmates. The majority of students (eight out of nine) also received at least

one piece of *surface-level feedback* from peers. To produce this feedback, Sarah's students worked in groups of three, providing one another with verbal feedback in a face-to-face workshop. Quinn's students also worked in groups of three, with each receiving feedback from two peers in the form of direct edits, marginal comments, and an endnote written at the end of the peer's draft. Sofia's instructed her students to email one peer in their group of three with three suggestions on how to improve the essay, and they had the option of also providing their peers with marginal comments and/or direct edits. Sarah and Quinn's students revised their work in response to peer feedback before submitting the draft for instructor review; Sofia's students received peer and instructor feedback simultaneously, which they used to revise and resubmit their drafts for the instructor's final assessment. See Chapter 5 for more details about the workshop design and facilitation.

Meaning-level feedback that the students received is summarized and organized by instructor in Figure 3.4. The most common type of *meaning-level feedback* involved comments that requested the writer to *expand/explain*, followed by comments focused on *overall argument*, *praise*, *paragraph focus/organization*, and *source integration*.

This chart depicts how many students from Sofia's, Sarah's, and Quinn's course sections received five types of *meaning-level feedback*: *expand/explain* (nine comments from Sofia's students, four comments from Sarah's students, and six comments from Quinn's students), *overall argument/point* (two comments from Sofia's students, five comments from Sarah's students, and seven comments from Quinn's students), *praise* (four comments from Sofia's students, three comments from Sarah's students, and seven comments from Quinn's students), *paragraph focus/organization* (nine comments from Sofia's students, three comments from Sarah's students, and no comments from Quinn's students), and *source integration* (two comments from Sofia's students, one comment from Sarah's students, and two comments from Quinn's students).

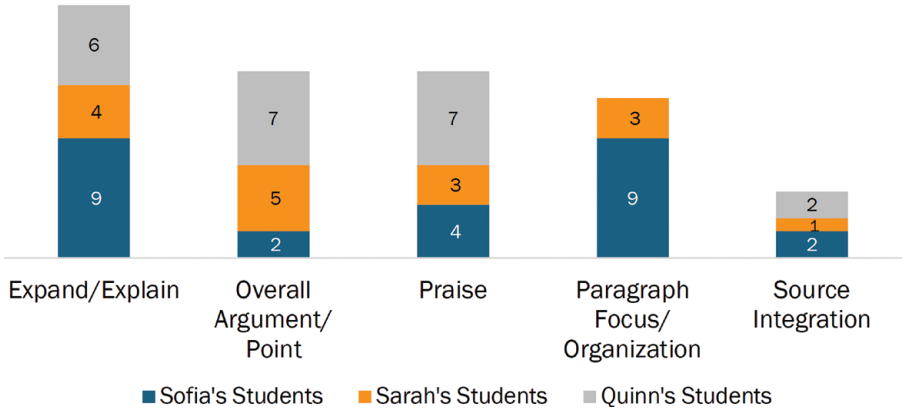


Figure 3.4. Frequency Counts for Meaning-Level Feedback in Each Case Study.

Table 3.1 offers more details about the *meaning-level feedback* categories by defining the categories and sharing examples.

Table 3.1. Meaning-Level Feedback Definitions and Examples.

Feedback	Definition	Example
Explain/ extend	Peer suggests that the writer further explain or clarify their ideas or that they add information to a particular section or paragraph.	Marginal Comment: "What are the different effects? Explain them so the reader can understand the controversy of the issue"
Overall argument/ point	Peer suggests that the writer strengthen their overall argument by stating it directly or connecting a particular idea/paragraph to the overall argument.	Workshop Discussion: "So your thesis is not very clear. You're talking about [Edward Snowden]. I think you could add who he was specifically. Like some background. … Yeah, you can go into who he was, why he did this and also the thesis is not very clear. So, what argument you're trying to make. This is just informative."
		End Note: "I think that you have to make clear of what your stance is and argue that side."
Praise	Peer offers praise about the topic and/or argument.	End Note: "The exigence of your topic, as well as your position, is strongly voiced throughout your paper. Your arguments are supported well by your evidence."
Paragraph focus/ organization	Peer suggests that the writer reorganize their paragraphs, revise/adjust their transitions, or move information that seems unrelated to the main idea of a given paragraph.	Workshop Discussion: "You talked a lot about the effects of sleep deprivation and habits in youth, but just about every paragraph starts with that, but then the paragraph was actually about something else. So, you're using the youth as a lead-in for some other topic, and it would be more beneficial to focus on the youth in part of the paper and the effects of it in youth."
		Suggestion on Worksheet: "I would move that quote and portion of your paragraph into paragraph 4."
Source integration	Peer suggests that the writer integrate more sources or include specific evidence in support of an idea/argument.	Workshop Discussion: "You don't have a lot of explicit evidence on the sources so you could add more of that for sure."
		Marginal Comment: "Provide sources/ citations that justify the claims you are making."

Surface-level feedback that the students received is summarized and organized by instructor in Figure 3.5. The vast majority of *surface-level feedback* across these course sections was related to *word choice/phrasing*. There were also a few instances of *surface-level feedback* related to *spelling* and *capitalization/punctuation*. In addition, we found three instances of *surface-level feedback* focused on *praise* and two instances focused on *citation/sources*.

Figure 3.5. shows how many students from Sofia's, Sarah's, and Quinn's course sections received five types of *surface-level feedback*: *word choice/phrasing* (25 comments from Sofia's students, five comments from Sarah's students, and 16 comments from Quinn's students), *spelling* (seven comments from Sofia's students, no comments from Sarah's students, and six comments from Quinn's students), *punctuation/capitalization* (four comments from Sofia's students, no comments from Sarah's students, and six comments from Quinn's students), *praise* (three comments from Sofia's students, no comments from Sarah's students, and no comments from Quinn's students), and *citation/sources* (one comment from Sofia's students, one comment from Sarah's students, and no comments from Quinn's students).

Table 3.2 offers more details about the *surface-level feedback* categories by defining the categories and sharing examples.

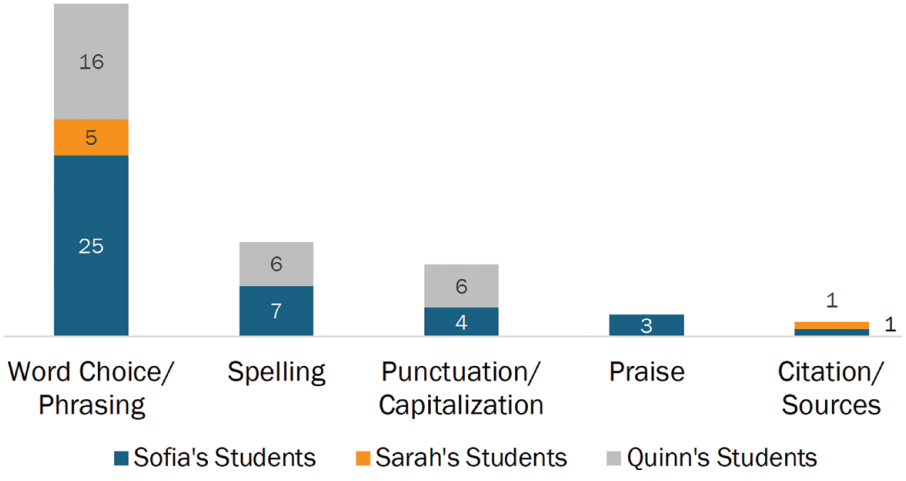


Figure 3.5. Frequency Counts for Surface-Level Feedback in Each Case Study.

Table 3.2. Surface-Level Feedback Definitions and Examples.

Feedback	Definition	Example
Word choice/ phrasing	Peer suggests that the writer rephrase a word or a phrase or directly makes word choice or phrasing changes to the writer's draft.	Workshop Discussion: "I know you were saying your thesaurus is your favorite thing. But I think you need to be a little careful with that because the reader, especially if you're writing to an audience of parents who might be concerned with their sleep habits, you don't want them to have to read it with a thesaurus."
		Marginal Comment: "You can keep 'do' to show emphasis."
		Direct edit: changes "that message" to "the message that every student should be going to college."
Spelling	Peer directly edits the writer's draft or leaves a comment that points out a misspelled word.	Direct edit: "sustainible" to "sustainable."
Punctuation/ capitalization	Peer directly edits the writer's draft or leaves a comment suggesting different punctuation or capitalization.	Marginal Comment: "Capitalize Instagram."
Praise	Peer offers praise for the writer's language choices or formatting.	Marginal Comment: "I do think some sentences use strong vocabulary, which makes it sound great."
		End Note: "Your format and MLA citations all look correct."
Citation/ sources	Peer makes recommendations related to in-text citations or to Works Cited list, primarily focusing on formatting.	Marginal Comment: "Your works cited needs to be in alphabetical order and the indents need to be fixed so it is in MLA format."

Correlating Peer Feedback With Revision

To examine the relationship between peer feedback and revision, we created a list of the *meaning-* and *surface-level feedback* that the students received, treating each suggestion as a potential *triggering event*. We removed the "praise" comments if they didn't recommend revision. We also counted repeated comments as one piece of feedback. For example, Emily received the same comment about moving an idea to an earlier paragraph both on her feedback worksheet and as a marginal comment. Similarly, Catherine left two marginal comments on Geoff's paper that directed him to make the same change (spelling out an

acronym). In these instances, we counted the feedback as a single *triggering event*.

Next, we used the Compare Documents tool in Microsoft Word to examine revisions students made between the draft submitted for peer review and the final draft of the project, looking for evidence of correlations between revision and feedback. When we found such evidence, we concluded that the students had experienced sufficient *exploration* and *integration* to demonstrate *resolution* in their revision. We discuss the relationship between feedback and revision as constituting "correlation" (not "causation") because we can't be certain that the students revised in response to peer feedback. This is because other *triggering events* may have prompted *exploration* and *integration*, including instructor feedback and students' pre-formed plans for revision. It should be noted that Figures 3.4 and 3.5 account only for revisions that correlate to peer feedback. However, many students made additional revisions that we couldn't connect to feedback. Future research might more closely examine the factors that prompt *exploration* to evolve into *integration*, perhaps by interviewing students about the correlated revision and feedback and about the revisions that are seemingly unconnected to peer feedback. One recommendation is to utilize a think-aloud protocol while students revise after peer review, asking them to explicitly consider what *triggering events* might have led to the *exploration* and *integration* that resulted in revision.

Meaning-Level Feedback and Revision

In this section, we focus on specific *meaning-level feedback* students received that correlated to revision choices. These analyses suggest how feedback can create *triggering events* that facilitate *exploration* and *integration*, ultimately resulting in *resolution* via revision. The relationship between *meaning-level feedback* and revision is visualized in Figure 3.6.

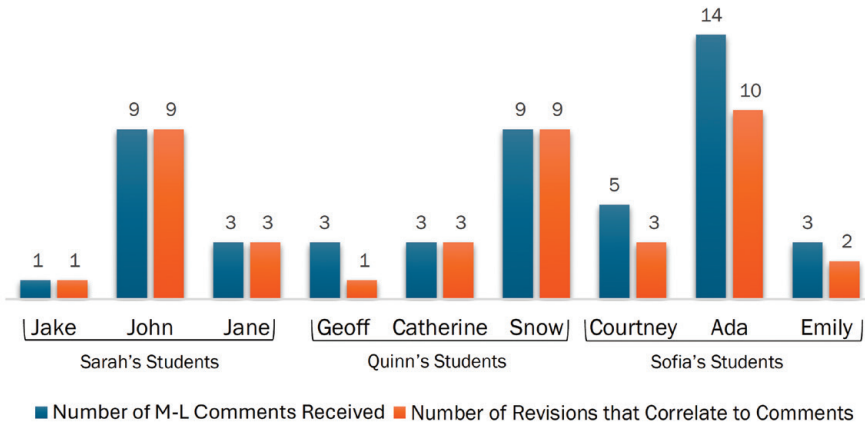


Figure 3.6. Meaning-Level Feedback & Revision.

Figure 3.6 shows the number of *meaning-level feedback* comments each student from Sarah's, Quinn's, and Sofia's course sections received and the number of revisions that correlated to that feedback:

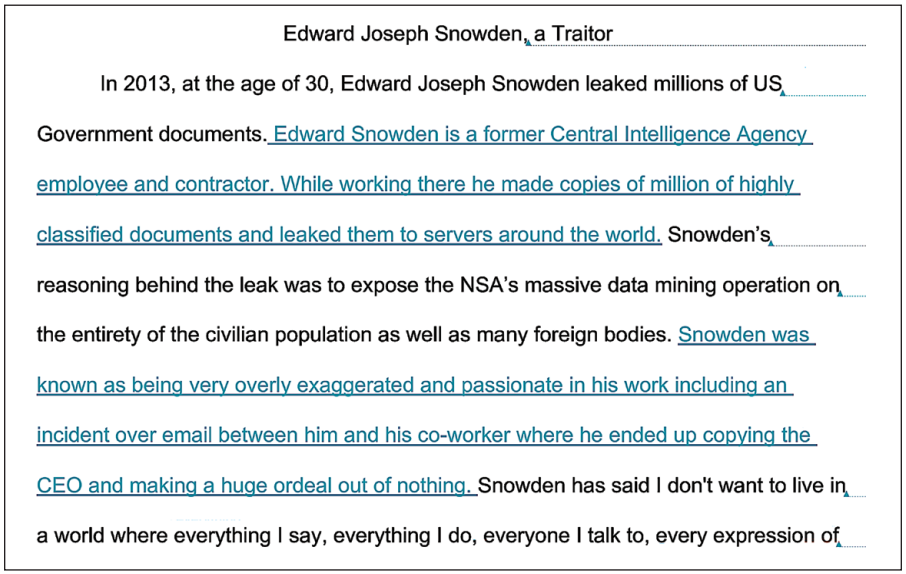
Jake received one instance of *meaning-level feedback* and made one corresponding revision; John received nine instances of *meaning-level feedback* and made nine corresponding revisions;

- Jane received three instances of *meaning-level feedback* and made three corresponding revisions;
- Geoff received three instances of *meaning-level feedback* and made one corresponding revision;
- Catherine received three instances of *meaning-level feedback* and made three corresponding revisions;
- Snow received nine instances of *meaning-level feedback* and made nine corresponding revisions;
- Courtney received five instances of *meaning-level feedback* and made three corresponding revisions;
- Ada received 14 instances of *meaning-level feedback* and made ten corresponding revisions; and
- Emily received three instances of *meaning-level feedback* and made two corresponding revisions.

Five out of the nine students (Jake, John, Jane, Catherine, and Snow) made revisions that correlated with 100 percent of the *meaning-level peer feedback* they received, which suggests that the feedback functioned as a *triggering event* that led to the other three phases of *cognitive presence*. Four of the students (Geoff, Courtney, Ada, and Emily) made revisions that correlated with some, but not all, of the feedback. Courtney, Ada, and Emily each made revisions that correlated to the majority (60–71 percent) of the peer feedback they received, while Geoff made revisions that correlated with only 33 percent of the peer feedback he received.

In the cases of John, Jane, Snow, Emily, and Ada, we feel fairly confident that these writers were actively engaging with and responding to peer feedback during revision and thus experiencing *cognitive presence*. John and Snow are particularly good examples because they both received extensive feedback from peers (nine instances of *meaning-level feedback* each), and they appear to have responded thoughtfully to each one. For example, John received the recommendation to add a specific thesis sentence that also made his point and argument clear, which resulted in him adding the sentence, "Under the espionage act Ed Snowden should be tried as a traitor who single handedly endangered the lives of every single American." In addition, he received a comment asking for more information in the introduction, which he attended to as demonstrated in Figure 3.7, which shows John's final draft that includes two new sentences that provide more background information in the introduction. For John, the peer feedback acted as a *triggering event* that prompted *exploration* (when he considered if and how to respond to the recommendations)

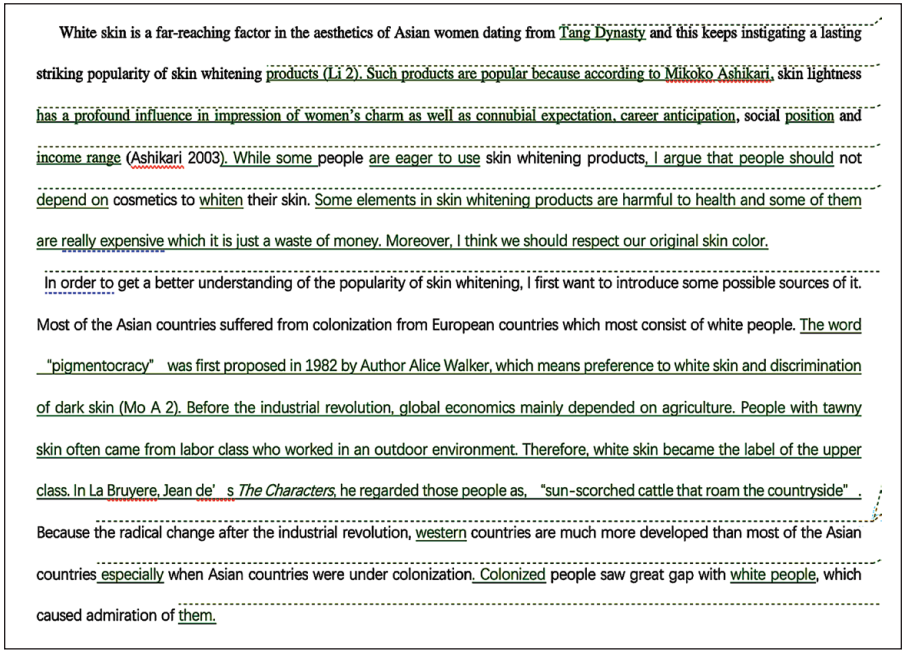
and *integration* (when he determined how to phrase the thesis and what background information to include) that culminated in *resolution* (the resultant revised draft).



Edward Joseph Snowden, a Traitor

In 2013, at the age of 30, Edward Joseph Snowden leaked millions of US Government documents. Edward Snowden is a former Central Intelligence Agency employee and contractor. While working there he made copies of million of highly classified documents and leaked them to servers around the world. Snowden's reasoning behind the leak was to expose the NSA's massive data mining operation on the entirety of the civilian population as well as many foreign bodies. Snowden was known as being very overly exaggerated and passionate in his work including an incident over email between him and his co-worker where he ended up copying the CEO and making a huge ordeal out of nothing. Snowden has said I don't want to live in a world where everything I say, everything I do, everyone I talk to, every expression of

Figure 3.7. Example of John's Final Draft With Revisions.



White skin is a far-reaching factor in the aesthetics of Asian women dating from Tang Dynasty and this keeps instigating a lasting striking popularity of skin whitening products (Li 2). Such products are popular because according to Mikoko Ashikari, skin lightness has a profound influence in impression of women's charm as well as connubial expectation, career anticipation, social position and income range (Ashikari 2003). While some people are eager to use skin whitening products, I argue that people should not depend on cosmetics to whiten their skin. Some elements in skin whitening products are harmful to health and some of them are really expensive which it is just a waste of money. Moreover, I think we should respect our original skin color.

In order to get a better understanding of the popularity of skin whitening, I first want to introduce some possible sources of it. Most of the Asian countries suffered from colonization from European countries which most consist of white people. The word "pigmentocracy" was first proposed in 1982 by Author Alice Walker, which means preference to white skin and discrimination of dark skin (Mo A 2). Before the industrial revolution, global economics mainly depended on agriculture. People with tawny skin often came from labor class who worked in an outdoor environment. Therefore, white skin became the label of the upper class. In La Bruyere, Jean de' s *The Characters*, he regarded those people as, "sun-scorched cattle that roam the countryside" . Because the radical change after the industrial revolution, western countries are much more developed than most of the Asian countries especially when Asian countries were under colonization. Colonized people saw great gap with white people, which caused admiration of them.

Figure 3.8. Example of Snow's Final Draft with Revisions.

Similarly, Catherine left a marginal comment that recommended Snow provide more information about her topic (i.e., skin whitening) and why it is important: "This is a very interesting topic, but it might be beneficial if you mention the main controversies of the issue. That way the reader understands why this is a pressing issue. Also, you need to explain to the reader how this became an issue. Why do women in [A]sia lighten their skin? This is essential information for the reader to get a full picture of the issue." Snow's processes of *exploration* and *integration* led her to add five sentences explaining when "pigmentocracy" was first proposed and noting that the interest in lighter skin emerged before the Industrial Revolution. Figure 3.8 shows these added sentences.

The correlations between *meaning-level feedback* and revision for these students lead us to conclude that the feedback did function as a *triggering event* that prompted sufficient *exploration* and *integration* for students to demonstrate *resolution*. Of course, the full process of constructing new knowledge in response to interacting with peers is much more complicated (and iterative) than what we've been able to describe in this brief presentation of the data. Future studies might benefit from closely mapping a student's experience of moving among the four phases of practical inquiry. For our purposes, this data illustrates that at least some of the students in this study were participating in peer-review workshops that functioned as communities of inquiry.

Other students appeared to attend to some, but not all, of the feedback they received. For example, Ada received 14 instances of *meaning-level feedback* from Emily, and we found revisions that correlated with ten of those. It's difficult to say why Ada may have followed some recommendations but not all, but we did notice that the four comments that didn't correlate with revisions were the last four *meaning-level feedback* marginal comments on the draft, so it may be that Ada simply ran out of time while working through the revision suggestions.

While the data presents fairly compelling evidence that John, Snow, Ada, Jane, and Emily revised their projects in response to peer feedback, the data were more complicated for the other four students in these case studies. Jake, Geoff, and Catherine each made revisions that correlated to *meaning-level feedback*, but we have reason to suspect that they would have made the same revisions even without peer feedback. In the case of Courtney, who received peer and instructor feedback simultaneously, we surmise that the instructor feedback eclipsed the peer feedback. If our suspicions are correct, then we can't conclude that the feedback functioned as a *triggering event*, nor that these students experienced the type of community inquiry that results from learning from peers (i.e., *exploration* and *integration*) and applying what they've learned during revision (i.e., *resolution*).

Jake's initial draft didn't include results and conclusion sections, which likely prompted his classmate John to note, "It's really, really concise so maybe just a little bit extended in some areas." Although his final draft did include a results section and a conclusion, as shown in Figure 3.9, according to his interview it seems as if this revision would have occurred regardless of the peer feedback he

received. In addition to his first-year writing peers' feedback, Jake explained in the interview that he also "had a three-hour discussion about the same paper two days ago with somebody in my department, and they gave me a lot of really critical information to include or to exclude from my paper." Figure 3.9 shows Jake's meaning-level revisions, including an added statistical analysis, discussion, and conclusion.

Similarly, Geoff received a marginal comment from Catherine, shown in Figure 3.10, that advised him to "explain what this means in terms of your argument." His revision includes a considerable amount of new writing that connects the idea to his larger argument, but it's also the case that Geoff had left himself a note in that area of the draft that stated, "*need to add more."

ANOVA Test Results

Group	P-Value	F-Statistic
Subject	0.00517	2.2589
Motion	0.36804	1.00846
Bead	0.01265	3.34182

Table (1): ANOVA test results for the three groups of interest: Subject, Motion, Bead.

Discussion and Conclusion:

The ANOVA test results suggest that no statistically significant difference exists in mean errors between motions, but that a statistically significant difference is observed in the mean errors between subject and bead selection. These results are preliminary and further analysis is needed to help understand and explain the cause of these variations.

While the ANOVA test does suggest reliability of Vicon ® may vary between subject and bead selection, the greatest mean error was under 3mm, which is much less than the error expected from soft tissue artifact. This means that the tracking errors observed in Vicon® may play a smaller role than expected in future studies of soft tissue artifact.

Figure 3.9. Jake's Meaning-Level Revisions.

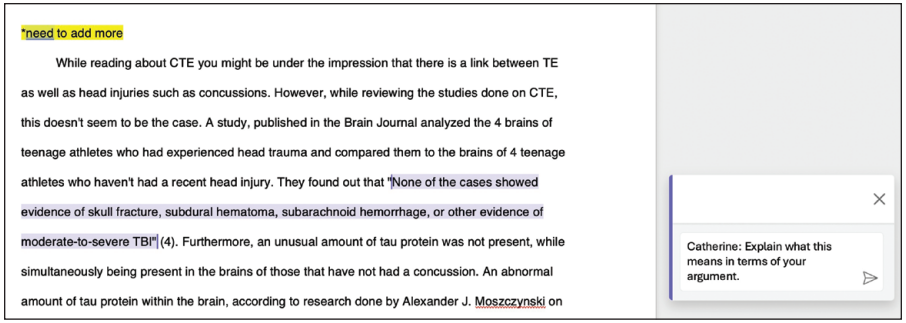


Figure 3.10. Catherine's Marginal Comment to Geoff.

Catherine had also made her own revision plans for her draft. In an endnote, Geoff recommended that Catherine work on her transitions, writing, "I think by improving your transitions will increase the quality of your paper." While her final draft did include revised transitions, Catherine's rough draft also included a note written by her that read, "~transition here not really sure how to do it ask Quinn~".

Jake, Geoff, and Catherine all appeared to have ideas about how to revise and/or finalize their drafts prior to the peer-review workshop. The peer feedback they received may have affirmed their ideas, but we don't have sufficient evidence to suggest they completed these revisions *because* of peer feedback. In other words, we don't have evidence of knowledge *co*-construction that was facilitated by *exploration* and *integration*. Accordingly, we are limited in our ability to conclude these students engaged in the kind of social knowledge construction within the peer-review workshop that characterizes *cognitive presence*.

Our case studies also suggest that some students may have revised their work in response to a different kind of *triggering event*: feedback that they received from the instructor. For example, Catherine's note-to-self shows that she intended to ask her instructor for help on her transitions. A prioritizing of instructor feedback over peer feedback was even more evident in Sofia's course section because Sofia offered students feedback at the same time as the peer review, which meant that students were simultaneously responding to peer and instructor feedback during revision. Sofia's student Courtney provides an example. She made substantial revisions to her draft by adding content, reorganizing sections and paragraphs, and clarifying points. Our analysis indicates that she was attending to both peer and instructor feedback, and we found more correlations between her revisions and the instructor feedback than with the peer feedback. In her author's note, Courtney wrote:

> I would really appreciate if you could note if I repeat myself or the same ideas more than once, as well as going off topic. I would also like any ideas for maybe an additional topic I could add, as I am a few hundred words off.

> I have already revised my draft a couple of times, adding more text. I also added another sources [sic] so that I nkow have six. I would really appreicate if you could note if I repeat myself or the same ideas more than once, as well as going off topic. I also would like any ideas for maybe an additional topic I could add, as I am a few hundred words off from the final draft requirement. I appreicate any feedback and appreicate any critiques.I have already revised my draft a couple of times, adding more text. I also added another sources [sic] so that I nkow have six. I would really appreicate if you could note if I repeat myself or the same ideas more than once, as well as going off topic. I also would like any ideas for maybe an additional topic I could add, as I am a few hundred words off from the final draft requirement. I appreicate any feedback and appreicate any critiques.

In her peer feedback for Courtney, Ada responded to Courtney's request for an additional topic, recommending that she include a discussion about concurrent enrollment courses and that she consider including personal experiences. She also responded to Courtney's question about repetition, writing, "I think you might drag out the idea of completing college on their own time. You talk about it three paragraphs in a row. I would either combine them or make a better differentiation between them." Finally, Ada recommended that Courtney revise the concluding paragraph in two ways: "clarify whether the graduation rate with online courses is worth it," and separate "the last couple of sentences into their own paragraph."

During her interview, Courtney said that she attended to peer feedback, saying, "I thought it was very helpful, and I really tried … to take what they said really into consideration." However, in her revision, Courtney didn't follow Ada's recommendation about adding discussions of concurrent enrollment or personal experiences. She did add information about the graduation rate but didn't appear to have followed Ada's recommendations about her conclusion.

The largest correlation we observed between Courtney's revisions and Ada's suggestions was related to Ada's second comment. Courtney deleted one paragraph and reorganized a few others to focus more on a distinct sub-topic (such as the benefit of not having to drive to school), which seemed in line with Ada's recommendation to "either combine" or "better differentiate between" the paragraphs. However, this revision also correlated to feedback Courtney received from Sofia, who wrote, "Your second paragraph is about convenience, then you move on to cost, and then you go back to convenience. [D]iscuss a particular issue in several paragraphs and then move on to another issue." Consequently, while Courtney may have been revising in response to peer feedback, we suspect that she either privileged instructor feedback over peer feedback or possibly ignored peer feedback and focused only on instructor feedback.

Courtney may have experienced *exploration* and *integration* that led to *resolution* as a result of the student-teacher interaction, but it doesn't appear that her peer-review workshop functioned as a community of inquiry through which students co-construct knowledge with peers. This isn't to say that *triggering events* prompted by student-teacher interactions are problematic but rather to illustrate the need for considering how the timing of teacher feedback might impact (and in this case, hinder) the potential for peer review to function as a community of inquiry.

Surface-Level Feedback and Revision

Unlike the revisions students made that correlated with most of the *meaning-level feedback* they received, the students' responses to *surface-level feedback* were more varied. Figure 3.11 shows the relationship between *surface-level feedback* and revision. It depicts the number of *surface-level feedback* items each student from Sarah's, Quinn's, and Sofia's course sections received and the number of revisions that correlate to that feedback:

- Jake received two instances of *surface-level feedback* and made two corresponding revisions;
- John received two instances of *surface-level feedback* and made one corresponding revision;
- Jane received two instances of *surface-level feedback* and made no corresponding revisions;
- Geoff received four instances of *surface-level feedback* and made three corresponding revisions;
- Catherine received 14 instances of *surface-level feedback* and made seven corresponding revisions;
- Snow received nine instances of *surface-level feedback* and made four corresponding revisions;
- Courtney received no instances of *surface-level feedback* and made no corresponding revisions;
- Ada received 31 instances of *surface-level feedback* and made 29 corresponding revisions; and
- Emily received five instances of *surface-level feedback* and made two corresponding revisions.

For Jake, John, Geoff, and Ada, the surface-level feedback seems to have functioned as a *triggering event*: all appear to have made revisions in response to the majority of suggestions they received. The amount of feedback they received, however, was quite different, with Jake receiving only two items of *surface-level feedback* and Ada receiving 31. Other students, like Catherine, Snow, and Emily, made revisions that correlated to only 50 percent or less of the suggestions they received. Jane made neither of the recommended surface-level revisions, and Courtney didn't receive any *surface-level feedback*.

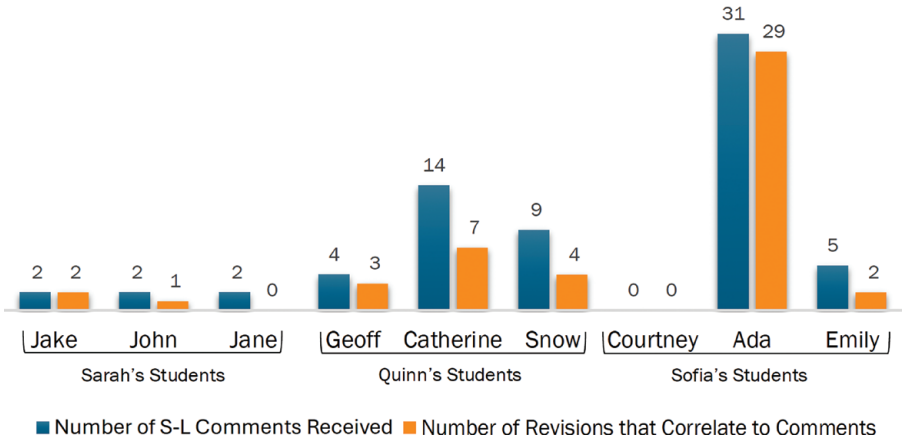


Figure 3.11. Surface-Level Feedback & Revision.

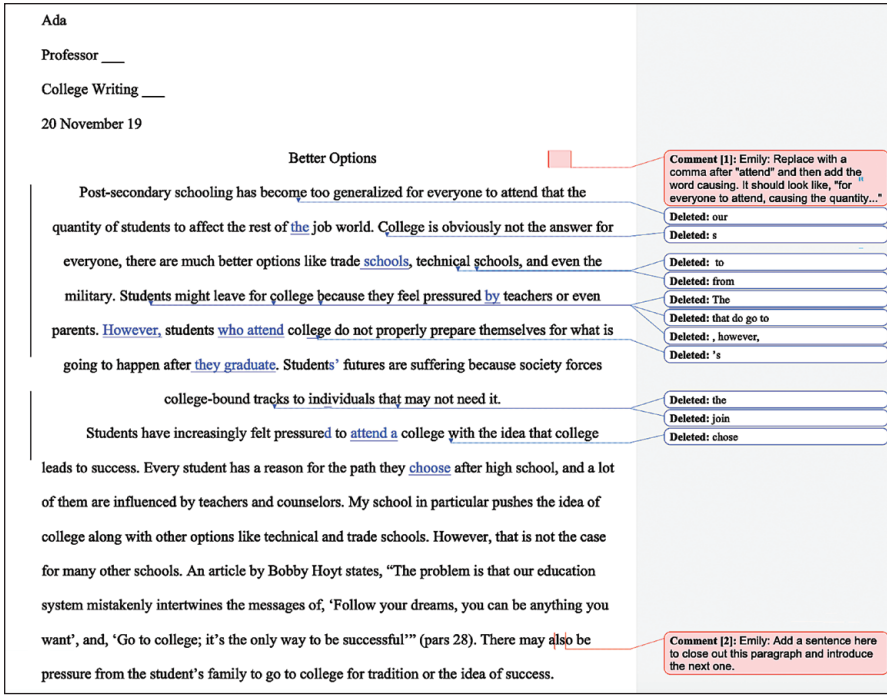
One factor contributing to the wide range in amount of *surface-level feedback*, especially in Sofia's class, is the role of authors' notes in the workshop. Sofia's students each composed author's notes at the top or bottom of their documents, informing the reviewer about the aspects of their writing they most wanted feedback on. The peer reviewers for the most part attended to those requests and also made additional suggestions for revision. Ada, who received 31 surface-level suggestions from her classmate, included in her author's note, "Please check my grammar." In response to Ada's request, she received surface-level feedback from Emily, as shown in Figure 3.12.

Edits Emily made to Ada's essay included correcting "chose" to "choose" as well as two marginal comments directing Ada to "replace with a comma after 'attend' and then add the word causing. It should look like 'for everyone to attend, causing the quantity….'" and to "add a sentence here to close out this paragraph and introduce the next one."

Emily similarly requested of her reviewer, "The thing I am most worried about is the grammar and wording of my essay," and she received five instances of *surface-level feedback* from her classmate. Conversely, Courtney didn't request any *surface-level feedback*, instead starting off her author's note with, "I would really appreciate if you could note if I repeat myself or the same ideas more than once, as well as going off topic." Courtney received no *surface-level feedback* from her peer reviewer.

Like Courtney, the students in Sarah's course section received very little *surface-level feedback*, but in their cases, this was likely due to the workshop design. These students offered verbal feedback, which didn't allow for the direct edits and marginal comments that students in other course sections used to provide *surface-level feedback*.

For the students who did receive *surface-level feedback*, the correlation between that feedback and revision varied. In some cases, we as researchers perceived the *surface-level feedback* as inadvisable and thus speculate that the writer felt the same way.


Ada

Professor ___

College Writing ___

20 November 19

Better Options

Post-secondary schooling has become too generalized for everyone to attend that the quantity of students to affect the rest of the job world. College is obviously not the answer for everyone, there are much better options like trade schools, technical schools, and even the military. Students might leave for college because they feel pressured by teachers or even parents. However, students who attend college do not properly prepare themselves for what is going to happen after they graduate. Students' futures are suffering because society forces college-bound tracks to individuals that may not need it.

Students have increasingly felt pressured to attend a college with the idea that college leads to success. Every student has a reason for the path they choose after high school, and a lot of them are influenced by teachers and counselors. My school in particular pushes the idea of college along with other options like technical and trade schools. However, that is not the case for many other schools. An article by Bobby Hoyt states, "The problem is that our education system mistakenly intertwines the messages of, 'Follow your dreams, you can be anything you want', and, 'Go to college; it's the only way to be successful'" (pars 28). There may also be pressure from the student's family to go to college for tradition or the idea of success.

Comment [1]: Emily: Replace with a comma after "attend" and then add the word causing. It should look like, "for everyone to attend, causing the quantity..."

Deleted: our

Deleted: s

Deleted: to

Deleted: from

Deleted: The

Deleted: that do go to

Deleted: , however,

Deleted: 's

Deleted: the

Deleted: join

Deleted: chose

Comment [2]: Emily: Add a sentence here to close out this paragraph and introduce the next one.

Figure 3.12. Emily's Surface-Level Feedback to Ada.

For example, on Snow's draft, one of her classmates changed the spelling of a word in a direct quote; in the final draft, Snow maintained the cited author's spelling. In other cases, we suspect that the writer didn't pay attention to the suggestion; for example, Geoff corrected Catherine's misspelling of "horors" to "horrors," but the final draft maintained "horors." In still other cases, the writer received contradictory feedback from two peers. For example, Geoff recommended that Catherine delete the word "do," but then Snow noted, "You can keep 'do' to show emphasis"; in the final version, the word is maintained.

In other instances, we are unable to surmise how a writer felt about a piece of feedback because the word or phrase that the feedback focused on wasn't present in the final draft. It may have been that the student agreed with the feedback but for a variety of reasons removed the word/phrase/sentence/paragraph from the final draft. In that case, the feedback may have been a *triggering event*, but not one that resulted in *exploration*, *integration*, or *resolution* that we could observe in this dataset.

Conclusion and Recommendations

Through interviews, the students and instructors who were subjects of this study identified multiple potential outcomes (or *resolutions*) of peer review, including *gain fresh perspective*, *learn from peers' writing*, and *improve text*. Our analysis of

students' *meaning-* and *surface-level feedback* and the revisions they made between drafts confirms that peer feedback can function as a *triggering event* that facilitates *exploration* and *integration*, creating the opportunity for those *resolutions*. In other words, at least for some of the participants in this study, peer review can and does function as a community of inquiry. An important next step is to question whether the course design creates spaces where students are likely to achieve the anticipated *resolutions*. We explore that question in Chapter 5 of this book.

By analyzing students' drafts and revisions, we can see how feedback creates *triggering events* that lead to *exploration* and *integration* and thus creates opportunities for *resolution* during revision. Evidence among drafts and revisions suggests that the four phases of *cognitive presence* are more obvious among *meaning-level feedback* and revisions, which more clearly demonstrates where community inquiry and shared knowledge construction happens. While *surface-level feedback* also leads to revision, we saw less evidence of the kinds of co-constructed knowledge expected among a community of inquiry. Overall, *cognitive presence* is attainable via peer review and did occur for some students; however, as with all CoI presences, its creation isn't automatic.

We also recognize that the type of *resolution* we've observed in this chapter—revision in response to feedback—isn't the only desired or valuable outcome of peer review. Other methods are required to measure *resolution* related to the writing process and to writing concepts and to study how students apply what they have learned to other writing projects within and beyond college classrooms. What our study does show is that peer review can be understood as a closed system that supports all four phases of *cognitive presence*. This is unusual in CoI research, which more typically examines asynchronous discussions and concludes that *resolution* isn't visible.

Additionally, while our study confirmed that the potential for *cognitive presence* was met for some students, it was less clear for other students. All students revised their work, but we have reason to believe that *triggering events* other than peer review (such as pre-planned additions and instructor feedback) drove some of those revisions. These findings demonstrate that learning is not a one-size-fits-all experience and give us reason to caution against using the concept of *cognitive presence* to concretely confirm if and when learning has occurred. Instead, *cognitive presence* must be understood in relation to the other two presences in the CoI Framework—*social presence* and *teaching presence*. We do that work in the next two chapters of this book.

Before moving on, we offer three recommendations for writing instructors, tutors, and researchers based on our analysis of *cognitive presence*.

Recommendation 1: Design Peer-review workshops That Have the Potential to Facilitate Knowledge Co-construction

In order for peer-review workshops to function as communities of inquiry, they need to be intentionally designed to facilitate knowledge co-construction.

Dewey's (1910) four phases of practical inquiry provide a helpful starting point for that design. Any activity that aims to facilitate community inquiry should include *triggering events* that invite *exploration* and *integration* as well as clear parameters for how students can apply their learning and thus demonstrate *resolution*. Specific to peer review, instructors should create texts and design activities that prompt *triggering events* (such as peer feedback), and then help students learn how to read and understand that feedback (*exploration*) as well as how to make their own decisions about how to revise in response to the feedback (*integration*). Instructors should also create specific assignments that invite students to demonstrate what they learned (*resolution*). Our study found evidence of *resolution* in the correlations between feedback and revision, but in an instructional context, it's advisable to ask students to be the ones who name those correlations, such as through a revision memo or reflective cover letter.

Recommendation 2: Acknowledge the Challenges of Measuring Learning

While our findings illustrate that peer review can and sometimes does facilitate *cognitive presence*, the data also shows that it is difficult to assess the extent to which students actually experience knowledge co-construction. In some cases, we were unable to determine whether students' learning was a result of interacting with peers or with someone or something else. Our case study analysis suggests that some students in Sarah, Quinn, and Sofia's course sections (i.e., John, Snow, Ada, Jane, and Emily) experienced knowledge co-construction as they revised their essays in response to peer feedback. However, while other students in those course sections (i.e., Jake, Geoff, and Catherine) each made revisions that correlated to feedback, we speculate that they might have made the same revisions without peer feedback. In the case of Courtney in Sofia's class, she received instructor feedback along with peer feedback, likely focusing more on feedback from her instructor than her classmates. As Halasek (2023) has argued, "Peer review that is immediately followed by teacher commentary … is subordinated by that teacher commentary as students reasonably turn to the teacher's response for guidance for revision because attending to teacher commentary is more important to improving grades" (p. 79). If our speculation is correct, we can't conclude confidently that all students experienced the type of *resolution* that results from *exploration* and *integration* but that the potential for this learning still is possible.

Consequently, our recommendation to writing instructors, tutors, and researchers alike is to be wary of confidently asserting that learning has occurred. The CoI framework presents a tidy heuristic that we find immensely useful as a tool for analyzing instructional design decisions. But learning is a messy and complicated human experience that won't be confined to the linear progression of *triggering event* to *exploration* to *integration* to *resolution*. To further explore this complexity, we turn our attention to *social presence* in the next chapter.

Recommendation 3: Articulate Learning Goals

In Chapter 5, we examine *teaching presence*, specifically questioning the extent to which the anticipated resolutions from peer review presented in this chapter (*gain fresh perspective*, *learn from peers' writing*, *improve text*) were articulated in the course design. Our findings confirm what was hinted at in this chapter: there are disconnects between instructor intentions and student experiences. For example, while four instructors in our study stated that an anticipated *resolution* of peer review was to *learn writing process* and three instructors declared an aim was to *build community*, none of their students articulated these same aims for peer review. Therefore, a key recommendation we will make throughout this book is for instructors to be clearer about the purpose and expectations when introducing peer review. As Halasek (2023) has argued, peer review cannot "be left to chance. It must be systematic and intentional" (p. 91). Weaver (2023) similarly noted that a primary problem with peer review relates to goals that either haven't been articulated by the instructor, haven't been communicated between students and instructors, or have been "both articulated and unarticulated [but] may not be achievable, particularly within first year composition courses" (p. 59). Accordingly, we recommend that writing instructors articulate the intended *resolution* from peer review to students, which might include *learn from peers' writing*, *gain fresh perspective*, and *improve text*. More broadly, our study illustrates the importance of clearly defining and articulating the intended goals of collaborative activities in general.

Chapter 4. *Social Presence*: Beyond "Feeling Real"

In this chapter, we examine the extent to which students experienced *social presence* during peer-review workshops, briefly introducing concepts from our previous survey data (Stewart et al., 2021) before focusing on this study's interview and case study data. *Social presence* is especially important for writing courses that aim to function as communities of inquiry because, as Kevin Roozen (2015) has argued, "writing can never be anything but a social and rhetorical act, connecting us to other people across time and space in an attempt to respond adequately to the needs of an audience" (p. 18). Because writing is social, learning about writing and practicing the craft of writing needs to be social, too. Applied to peer review, *social presence* facilitates the student-student interaction that leads to learning from and alongside peers. While the concept of *social presence* is an intuitive element of peer review, we believe the current theory and practices for studying *social presence* are insufficient for measuring and describing *social presence* in online writing courses.

This chapter first describes the history of *social presence* in CoI scholarship and then presents our own attempts to reconceptualize *social presence* for writing studies, which involves differentiating between *social perceptions*, *social learning*, *social comfort*, and *attitudes*. Ultimately, our examination of the interviews and case studies we conducted results in a call for future research to further theorize and operationalize this important component of a community of inquiry.

History and Theory of *Social Presence*

First defined as the "degree of salience of the other person in a mediated communication and the consequent salience of their interpersonal interactions" (Short et al., 1976, p. 65), the concept of *social presence* was extended to visualizing online classmates (Walther, 1992) and discerning whether interactions felt as though they were with a "real" person (Gunawardena & Zittle, 1997). The scholarship particularly focused on asynchronous communication because, in the 1990s, message boards and chat rooms were the primary mode of online interaction—hence the emphasis on whether participants were "real." In 1999, Garrison et al. drew upon this evolving theory to define *social presence* as "the ability of participants in the CoI to project their personal characteristics into the community, thereby presenting themselves to the other participants as 'real people'" (p. 89). As was the case for most online learning research at the time, the community into which Garrison et al.'s participants presented themselves existed as an asynchronous online discussion forum. Garrison et al. (1999) further theorized *social presence* as including three categories of behaviors that led to a sense of communicating with "real people" (p. 89): *open communication* (i.e., expressing agreement or

disagreement), *affective communication* (i.e., sharing personal stories), and *group cohesion* (i.e., referring to the class as "we"). In 2008, a team of CoI researchers created the CoI survey (Arbaugh et al., 2008), which operationalized the three *social presence* categories into nine Likert scale questions.

In the decades since, many scholars have critiqued (e.g., Annand, 2011, 2019) and/or reconceptualized (e.g., Christen et al., 2022; Wertz, 2022) *social presence*. Some of these reconceptualizations have stemmed from methodological concerns; as Karel Kreijns et al. (2014) noted, Garrison et al.'s (1999) original three "categories have only been derived theoretically, but never empirically verified" (p. 9). Other concerns have related to the assumptions that ground the CoI framework, such as the assumption that social interaction is necessary for all learning (Annand, 2019). We share these concerns and also worry that positioning a sense of "real people" (Garrison et al., 1999, p. 89) or having distinct impressions as the primary indicator of *social presence* is outdated, given today's technologies that enable both asynchronous audio-visual communication and synchronous interaction, not to mention the ability to produce and distribute digital communications across more complex social networks. We further believe that any conversation about "feeling real" needs to account for the power dynamics and social constructions that impact how course participants present themselves and are perceived by others (Retzinger, 2018). Consequently, we echo these scholars' critiques and build on their work to reconceptualize *social presence* for a writing studies context.

Table 4.1. Four Categories of Social Presence Survey Items

Category of Social Presence	**Survey Item**
Social learning	Getting to know other course participants gave me a sense of belonging in the course.
	Online discussions helped me to develop as a writer.
	Interacting with classmates improved my writing.
Social perceptions	I was able to form distinct impressions of some course participants.
Social comfort	I felt comfortable interacting with other course participants.
	I felt comfortable participating in the course discussions.
	I felt comfortable conversing through the online medium.
	I felt comfortable disagreeing with other course participants while still maintaining a sense of trust.
	I felt that my point of view was acknowledged by other course participants.
Attitudes	Online or web-based communication is an excellent medium for social interaction.

As illustrated in Table 4.1, our process for conceptualizing *social presence* began when we slightly modified the CoI survey (Arbaugh et al., 2008) to make it more specific to writing instruction (Stewart, 2019). This included adding one *social presence* item: "Interacting with classmates improved my writing." We also revised an existing item: "Online discussions helped me to develop a sense of collaboration" became "Online discussions helped me to develop as a writer." Then, replicating the methods of Sheila Carlon et al. (2012), we engaged in a quantitative analysis of the CoI survey items that resulted in regrouping the items into four categories (Stewart et al., 2021): *social learning*, *social perceptions*, *social comfort*, and *attitudes* about the potential for social interaction online.

In the present study, we attempted to apply the four categories in our qualitative analysis of the interview and case study data that we collected during our observation of peer-review workshops. We found some value in differentiating between *social learning* and *social perceptions*, but we found the other two categories problematic. Consequently, we call for more robust theorization of *social comfort* and a reconsideration of the *attitudes* we want to measure.

Social Learning

The concept of *social learning* is one of our major contributions to CoI scholarship because it is derived from the modifications that we made to the CoI survey. In addition to the question we added and the question we modified, our conception of *social learning* included a survey item about students gaining a sense of belonging in the course. One question we wanted to explore qualitatively was whether having a sense of belonging increased students' belief that they were engaging in *social learning*. The interview and case study data that we present in this chapter challenge that relationship—our student participants suggested that *social learning* doesn't always require the level of relationship implied by "sense of belonging."

Social Perceptions

Our definition of *social perceptions* was derived from Kreijns et al. (2014), who offered a theoretical examination of the CoI survey items. Kreijns et al. (2014) first differentiated between "a person's perception" of classmates as real and a person's "ability to project oneself" into the online space (p. 7). We follow suit, focusing on perceptions of others in our definition of *social perceptions*; the idea of projecting one's self into the social space is covered by "social comfort" (see the following section). Kreijns et al. (2014) further argued that, once *social perceptions*[2] are formed, a social space can exist, and in that social space, classmates can

2. In Stewart et al. (2021), we followed Kreijns et al.'s (2014) lead and called this element "social presence per se." We subsequently renamed the element "social perceptions" to indicate that this is one of several components of social presence.

develop "affective work relationships, shared social identity, group cohesiveness, mutual trust, a sense of belonging, a sense of community, and an open atmosphere" (p. 11-12). In this conception, the first step toward *social presence* is to establish *social perceptions* of others. From there, relationships are formed that create the potential for *social learning*. As noted above, our project challenges this conception because the students in our study indicated that relationships may not be necessary for learning.

Social Comfort

During our initial reconception of *social presence* for writing studies (Stewart et al., 2021), we believed that *social comfort* was necessary alongside *social perceptions* for *social learning* to occur. Our definition derived from the work of Carlon et al. (2012), who performed a quantitative factor analysis of the CoI survey that resulted in two components of *social presence* (instead of three): *social experience* and *social comfort*. The *social comfort* factor included five survey items, four of which asked students to report on whether they felt "comfortable" interacting, participating, conversing, and disagreeing with peers online. The fifth item asked if the students felt their perspectives were acknowledged by others. When we replicated Carlon et al.'s (2012) study (see Stewart et al. (2021) for more details), the same five "social comfort" items grouped together. Consequently, we maintained *social comfort* as a component in our writing-studies-specific conception of *social presence*. In this current project, we attempted to examine *social comfort* qualitatively, through our interview and case study data. The experience has led us to conclude that the concept is insufficiently theorized, as we will describe in more detail later in this chapter.

Attitudes

The final category that emerged from our earlier study of *social presence* (Stewart et al., 2021) was *attitudes* about the potential for social interaction online. This category, maintained in Kreijns et al.'s (2014) conception of *social presence* as well as our own, is connected to a single CoI survey item: "Online or web-based communication is an excellent medium for social interaction." During the drafting of this book, we attempted to code for *attitudes* in the student interview data, but we were unable to identify a discernable pattern that would lead to reportable findings. A key issue was that students described their *attitudes* towards online and hybrid learning in a variety of ways: sometimes they reflected on their current experience, but often they simultaneously speculated about their past or possible future experiences and/or speculated about how their classmates' *attitudes* about the potential for social interaction in online and hybrid learning might vary from their own. If future researchers aim to investigate *attitudes* as a component of *social presence*, we recommend a systematic analysis of past versus

current experiences with online learning. We also recommend that researchers parse the differences between students speculating on how they might feel about online communication being a successful medium for social interaction versus how they suspect their classmates feel. With that said, we're also not convinced that understanding *attitudes* about the potential for social interaction online is the best route for future research. It may be more valuable to broadly explore *attitudes* about interactivity and social learning: Do students value peer interaction? Do they want to learn from and alongside peers? Why? Understanding those *attitudes* may be more beneficial to faculty who are trying to create online interactive activities that feel meaningful to students.

Critiquing and Reconceptualizing *Social Presence* for Writing Studies

In what follows, we report on our attempts to qualitatively investigate *social learning*, *social perceptions*, *social comfort*, and *attitudes*, sharing what we learned from coding 20 student interviews as well as analyzing three case studies. We don't attempt to analyze the case studies according to the categories of *social presence* because we don't believe our current conception of *social presence* is robust enough for such an analysis. Instead, we weave examples from the case studies into our broader discussion of the interview data in an attempt to illustrate the complex ways students experience and encounter *social presence* in online and hybrid peer-review workshops. Our hope is that this chapter will inspire future research.

Social Learning

With the exception of Jake, whom we will discuss at the end of this section, the other 19 students stated in their interviews that they believed they experienced *social learning* as a result of interacting with their peers through peer review in their FYW course sections. Students frequently mentioned their specific peer reviewers when discussing what they had gained from the peer-review workshop. Jane, for instance, discussed benefiting from Jake's writing expertise, which she had noticed from earlier class discussions: "Yeah, so Jake, yeah, I haven't been in a group with him before. But based on the discussions that we have I knew that he's a really strong writer. So that was good for me to have that feedback." Courtney emphasized the reciprocal nature of peer review in exchanging documents with her peers, noting that "for the third essay, the comments were probably about equal to what I got" and that Ada responded to her writing needs: "I just needed a few extra ideas, and the student who first read my paper, she kind of helped me with that, and I also said I wanted to keep my topic on—I wanted to be focused throughout the whole paper, and she made sure to be aware of that."

Other students recalled specific comments made by peer reviewers that they learned from or drew upon in revising their work. Steven, for example, recalled,

"So JD actually made a really detailed comment about my paper, so he picked out my format that I'm supposed to use for MLA citation that I forgot about. And he also picked out different reasoning and statistics that I might be able to put in different paragraphs. I think that was really helpful." Joel expressed that he had been apprehensive about receiving harsh criticism but observed instead about his classmate's feedback, "I feel pretty good about it because it wasn't—she didn't really tear my essay apart, but it was helpful to see like, okay, I need to add a few paragraphs about this. It was helpful to get that feedback, and it was a very constructive—like constructive criticism."

While all but one of the students stated that they experienced *social learning*, the majority (14 out of 20, or 70 percent) also named at least one factor that hindered *social learning*. Ten students mentioned that they preferred to have their texts reviewed by non-classmates. Peter commented that, in the future, he "would ask for help, but probably not from another student"; for example, he might ask his wife for feedback. Joel explained that, while he preferred instructor feedback, he believed peer feedback was also helpful: "I'd much rather have the teacher review it as she did. … But if we are going to do both, I don't see any problem with it. I mean, it's going to be helpful either way." Eight students disagreed with Joel's sentiment that peer feedback would "be helpful either way," instead describing ways in which peer feedback was unhelpful. For example, Daniel explained that the classmate giving him feedback "was fixing a lot of little things, like being nitpicky in grammar, punctuation, all that ….Some of the things that she told me to do were the things my instructor told me not to do."

For others, the issue wasn't that the feedback was unhelpful but that the workshop felt perfunctory (n=7). Some students articulated that they provided feedback quickly or superficially to earn points. Jordan said, "I feel like when we peer review things, it's kind of like we're all just kind of writing something random to get the points for the assignment ….We have to write two reviews for two other students, and I feel like most of us are just like doing it and writing something random and not really doing it in depth." Other students, like Isaiah, explained that providing feedback could seem less perfunctory if he knew his classmate: "It's more of just an assignment if you don't know the person. You just want to do the peer review for the grade, but if you do know the person then you're more likely to feel engaged in it, if that makes sense."

Most of the students in our study simultaneously said that they both did and did not experience *social learning*, which corroborates our findings in Chapter 3: *exploration* and *integration* are *possible* in a peer-review workshop, but *resolution* isn't a guaranteed result of peer interaction, and it isn't uncommon for students to learn from some interactions but not others. For these reasons, *resolution* (and *social learning*) is difficult to observe and measure. To offer some context for this difficulty, we share the story of Jake, who developed strong *social perceptions* of his peers within the classroom but didn't appear to experience *social learning* as a result.

Case Study Example 1: Inauthentic Audience for Sarah's Student, Jake

Jake was a fifth-year biomedical engineering student who was accustomed to writing research essays and had asked Sarah for permission to work on an essay for a senior-level class, which she granted. His peer review group members included John, a first-year psychology and criminology student who was writing an essay about Edward Snowden, and Jane, a first-year graphic design student who wrote about sleep deprivation.

When asked how he felt about giving peer feedback, Jake's assessment was positive given his confidence as an older, more experienced student. He replied, "I enjoy it because I like discussing other people's work. I obviously think I'm very qualified to give my feedback, but it's—I enjoy it. I do." He also spoke of his rapport with one of his peer review group members, explaining, "Right, so John, the other guy in the group, he and I had been in groups before. We had actually been in a group where we kind of did a collaborative synthesis paper. So, I'm familiar with him." And he noted of his class as a whole, "Yeah, we all get along. It's a good environment."

The complication for Jake was that he was a fifth-year student in a first-year course, sharing a senior thesis essay for peer review. A lot of Jake's frustrations were explained in a reflection that he included at the end of his essay:

> This paper with its associated research has been quite the ordeal this semester. As you are aware, this paper is a draft for my senior thesis project. Part of the difficulty in writing this paper is that I have received input on it from many different sources of authority, each with their own ideas on how the paper should be written. The sources of these ideas range from the head of the research group, to my peers, to the professors responsible for the paper's grading. Having so many different people to report to has resulted in a frozen approach to writing and editing the paper. With so many people telling me the correct way to write the paper and with each way being contradictory to the others, I have not had the confidence to revise and edit the paper. I do not believe this paper to be exemplary of my best writing, but rather a reflection of an adherence to a rubric intertwined with counsel from a handful of individuals.

Given Jake's positionality as a fifth-year student writing his senior thesis, he had additional audiences to consider than just his FYW peer reviewers and instructor, which complicated his revising process. As we discussed in Chapter 3, most of Jake's revisions were surface-level and included word choice/sentence rephrasing. Most of his meaning-level revisions were in response to finishing his analysis (e.g., adding graphs and writing a discussion/conclusion) and not necessarily in response to any feedback from his classmates. Jake, despite having

developed *social perceptions* of his workshop group, didn't believe he experienced *social learning* through peer review. Jake's situation as a fifth-year student is unique, but that's the point—many students have unique situations of which teachers aren't aware and which they can't anticipate. As such, theorizations of *social presence* in writing studies need to account for factors that impact how students perceive and subsequently interact with (and do or do not learn from) their peers. For these reasons, we differentiate between *social learning* and *social perceptions*.

Social Perceptions

Differentiating between *social learning* and *social perceptions* allows us to examine the relationship between them. CoI scholarship has suggested that this relationship is sequential: before they're able to engage in *social learning*, students need to establish *social perceptions*. In a CoI, these perceptions are supposed to help students "communicate purposefully in a trusting environment" (Garrison, 2011, p. 34). Our analysis of our student interview data revealed that the majority of students in this study (18 out of 20, or 90 percent) described having some kind of social perception of their peers, which generally was a result of being physically together (n=8), and/or virtually together (n=6), or being familiar with their classmates' topics (n=11). However, half of the students in this study additionally argued that they didn't want or need to know their peers (n=10) in order to learn alongside them. After presenting the interview data, we share an example from our case studies that illustrates the impact of pre-existing relationships on students' *social perceptions*.

Physical and Virtual Togetherness

The students in hybrid course sections described working with their peers in the physical classroom, suggesting that the physical space impacted their perceptions of classmates. John explained, "I sit next to Jake all the time, and I worked with him on the synthesis." Sam noted, "In class we would have assignments with people in our group." The students in the hybrid sections also described gaining an impression of their classmates through their virtual interactions. For example, when asked if she knew her peer review partners in advance of the peer-review workshop, Jane said, "Yeah, we have our, like, class discussions online, and then based on that I can kind of tell or, like, can learn some stuff about people." Jane's classmate, Jake, said the same thing about her: "I'm familiar with [Jane] in online discussions, but we've never really spoken in person until today."

For the students in fully online course sections, the virtual interactions functioned similarly, giving them a sense of their fellow learners. Peter, a student in an online section, explained, "We do a discussion post a week, and then a response to a discussion post later in the week. … We kind of have some interaction there and I've read their discussion posts for 11 weeks or whatever." Emily, another

student in an online section, was a bit more enthusiastic about the discussions, saying, "They're really sort of cool. And it's open to conversation and it's more casual than the other assignments."

While some students generally described having *social perceptions* of their peers because of physical and/or virtual togetherness, others specifically talked about being familiar with their peers' writing project topics. For example, when asked if he was familiar with his peer review group members, Daniel said, "Yeah, a little bit because we've kind of done this throughout the semester.… It's all just one topic we're working on the whole semester. So, I think we've all read each other's work a little bit." Catherine similarly described reading her classmates' work over the course of the semester, saying, "You kind of get an idea of the questions that they pose in the inquiry essay and then you see how they just argued or take a stance on that position paper." Emily similarly explained, "After reading a lot of their responses on the discussion I learned a little bit about them, and about what they like, and how they write, and the things that inspire them." Geoff concurred, "I feel like I do understand the way they write, like the way they type." Students developed *social perceptions* of one another as writers through reading each other's writing. Related to Chapter 3 on *cognitive presence*, these *social perceptions* may have facilitated *resolution* via *learning from peers' writing*.

While most of the students' interactions were required elements of their course sections, we also observed a few instances of non-required peer interaction. For example, in the hybrid course section Percy taught, the peer review took place asynchronously. However, his student Steven took it upon himself to talk with his classmate JD about the feedback, mostly because he sits next to JD in class. When asked if he interacted with his peer review group outside of the workshop, Steven explained, "I actually did yesterday. I talked to JD about it, but it was more just like, 'Hey I saw your comment and it was really helpful.'" JD said the same thing in his interview, explaining, "With Steven, I actually got his paper to review. It was actually really helpful because you can come after class and talk about what they said. So, it wasn't even limited to what I said online, we could also meet up after and you could give feedback about it.… So, I thought that was another awesome thing I could do; meet him in person and he's like, 'Oh, hey, I saw what you wrote,' and I just gave further feedback about it, which was nice."

To our surprise, a few of the students in online course sections—those who were enrolled in a secondary school dual enrollment program—also described unrequired instances of physical togetherness. Joel explained, "We have the option to take the [dual enrollment] version, and just since there was only one online college writing class, the people who signed up for that one basically all got put together in it." Ada further explained that she and her dual enrollment classmates would complete their online coursework together in a computer lab at their high school, noting, "We're in there with each other all day, and that's just all we talk about all the time, is just, like, what's our classes and what's going on in them."

Across the data, students described developing *social perceptions* of peers as a result of physical and/or virtual togetherness and reading peers' writing. However, that impression didn't necessarily lead to the kind of "relationship" between peers that is implied in CoI scholarship. As Courtney explained, "I feel like we got to know each other a little bit through the discussion board, but I don't know. I kind of don't because the discussion boards are more to me on our topic about writing and stuff, so we don't get to actually know the student as a person, necessarily, as much as a student, you know?" Courtney's distinction between knowing her classmates as "students" versus as "people" was echoed throughout the dataset, so much so that we began to use Courtney's terms to differentiate between gaining a *social perception* of peers as students versus as people.

Peers as Students vs. People

Traditional CoI scholarship (Garrison, 2017; Garrison et al., 1999) has advanced a conception of *social presence* that seems in line with what Courtney in our study described as getting "to actually know the student as a person"—this version of *social presence* involves sharing personal stories (*interpersonal communication*), developing a trusting environment (*affective communication*), and viewing the class as a united group (*group cohesion*). For Courtney, knowing a classmate "as a person" was different from knowing them "as a student," and we believe a writing-studies specific understanding of *social presence* needs to account for that difference. The students in our study not only differentiated between knowing each other as people versus as students, but they also argued that they didn't want or need to know their peers "as people" in order to be successful in the course. This was particularly prominent when students responded to the interview question, "How would you describe your relationships with your peers in this class?"[3]

Most students responded to this question with something along the lines of "I think they're just my classmates" (Steven), or "I wouldn't really say I have a relationship with my peers in this class. We're both in the class but that's about the extent of it" (Peter). As Hannah put it, her relationship with peers was "very neutral."

Some students went on to point out that they didn't want or need to develop relationships beyond the neutral classmate. John said,

> I feel like I have not as good of a relationship with everyone that I did in high school. In college, you're a lot more independent. So especially with it being a hybrid class, I don't know everyone that well, and—because I only see them for an hour a week, hour and a half a week. That's fine with me. Because I have my own, like, kind of life outside of school. So, it doesn't really affect me.

3. This interview question was developed as part of our fall 2017–2018 survey project and then replicated in the fall 2019 study. Our use of the term "relationship" comes from Short et al.'s (1976) definition of social presence, which informed Garrison's (2009) definition of the term.

John's point seems to be that, unlike in high school where his classmates were also his friend group, in college his classmates were just classmates, and he was perfectly comfortable with that. Jordan similarly explained that, because there was an age gap between her and her classmates, she wouldn't expect or want to form relationships with them: "I feel like because I'm like the oldest person in the class, like, I don't really necessarily, like, want to, like, try and, like, find out who the people are in my class necessarily. So, it's just like strictly class—that's it."

Catherine made the same claim but also noted that relationships *can* form in class: "I wouldn't say that I have a super close relationship.… If anything, the relationship I have from the class are a few people that I met for orientation or a few people that I knew went to school in my area, … or a person that I sat next to and asked them a question about something we're doing in class." Catherine suggested that the neutral classmate might become a friend, but this happens outside of the formal classroom interaction—at orientation or building upon prior friendships or created through a side conversation with the person next to you in class. Catherine further explained that she didn't mind when relationships didn't form because they aren't necessary for learning in a first-year writing class:

> I, personally, I don't mind it that much, just because the class isn't so dependent on your relationship with other people. For my business class, for example, we're doing a major group project and okay, in that case, I do want to know a little bit about who I'm working with. Are they going to get their work done on time? Can I trust—well who can I trust to [do] this on time, who can I trust with this? So, generally, that is a little more important in a class where I would have a group project, I would say. For an English class, or a math class that's more lecture style, I would say, it's not as important to me.

These data illustrate the student participants pushing back on the interviewers' implication that they should or do have a "relationship" with classmates. They seemed to want to interact with classmates, but they questioned the degree to which that interaction needed to involve a "relationship." Geoff explained this well: "I'm not really like super close with any of them. But, like, it's more of, like, just a class-kind-of-relationship. We all, like, understand what we need to do and kind of just bounce off one another for ideas and whatnot." Or, as John explained, "Even though I know stuff about them I don't really know them, which is fine with me. Cause I'm just, you know, in the class to take it and learn something."

Although most of the students indicated that interacting with classmates didn't mean they knew—or needed to know—them "as people," there were three students who had a different perspective and articulated a desire for the types of relationships advocated by CoI scholarship. For example, Daniel, a student in an online course section, explained that "due to the fact that it's entirely online, you know, we don't really talk to each other. At least, I don't. We're not close at

all." He further characterized the forums as "forced discussion" that felt "robotic." Daniel expressed disappointment at these inauthentic relationships, suggesting that knowing his classmates (as people, not just as students) would enhance his learning experience.

Our analysis of our case study classrooms revealed another relevant example. Ada, from Sofia's class, deeply valued her classmates "as people," but only because she knew them from high school. Below, we contrast her experience with that of her classmate Courtney, who provided us with the "student versus people" vocabulary.

Case Study Example 2: Pre-Existing Relationships in Sofia's Class

Ada was a high school student completing her coursework in a computer classroom alongside her fellow dual-enrollment peers. Courtney was a second-year nursing student taking Sofia's fully online FYW course alongside several face-to-face courses on a college campus; she noted that she, too, would often complete her coursework in a computer lab, but she didn't describe interacting with other writing students in the lab.

When asked how she would describe her relationship with peers, Ada said, "I'd say that we are a lot closer than normal college students, just because we are all [dual enrollment] students and we all know each other." Ada also noted that the experience of physically completing their dual enrollment coursework in the same computer lab created close relationships between [dual enrollment] students, saying, "We all know each other, and we've just kind of stayed in the same classes our whole lives. Like, we've all been in advanced classes, and we all took the [dual enrollment] classes, and we are all just in our own little bubble. So, it was fun doing it, and, yeah, they're all just super close and super nice." When asked if she tended to talk with her dual enrollment peers "about what you were going to post for the discussion," Ada said, "Yeah, we would always do that. Like, there was a website one, and we were like, do you put an academic website, or just a normal website? And so, we were all debating, and I ended up putting Twitter or something."

Ada also mentioned Courtney by name in the interview. The interviewer asked if Ada found herself "commenting more on the people that you knew in real life," and Ada said, "Yes." She further explained that "there was one girl [Courtney], who would comment first every time," and Ada and her high school classmates "would always be like, someone else post, because we don't know what to put on her comments and blah blah blah, and so we would just all work together." Ada demonstrated that she had a *social perception* of Courtney but also illustrated that she actively worked to not interact with Courtney, preferring instead to reply to peers who were in her dual enrollment group whom she worked with in-person.

In contrast, when Courtney was asked if she felt like she "knew those students" who participated in peer review alongside her, she responded, "I mean, maybe a little bit, but definitely not as much as in-person classes." She went on to

make her distinction between knowing the "student as a person" versus knowing them "as a student." Unlike Ada, who seemed uncomfortable responding to peers she didn't know personally, Courtney found this enjoyable. When asked how she felt about giving feedback to her peers, Courtney responded, "I like it. I thought it was fun." When asked how she felt about receiving feedback, she again responded positively: "I thought it was very helpful, and I really … tried to take what they said really into consideration."

Courtney's experience seems well-aligned with the other students in this study who were satisfied working with their classmates by receiving and giving feedback without having a relationship or knowing them "as a person." Ada offered a different story. Her positionality as a high school student in a dual credit program impacted her interest in interacting with non-dual credit peers because Ada was physically together with classmates with whom she had preexisting relationships and, therefore, already established *social perceptions*.

The interviews and case studies suggest that having a "social perception" of a classmate can have a range of meanings. Further, "relationships" aren't a given and, perhaps, not even a requirement for learning in FYW courses (although they may be desirable for some students). This finding has implications for how *social presence* is theorized in writing studies as well as how it is measured. In our interviews, asking students to describe their "relationships" with their classmates created confusion by assuming that (a) students *do* have relationships with their peers and (b) researchers, instructors, and students all have a shared understanding of the term. Theorizations of *social presence* in writing studies also need to recognize that perceiving classmates as "real people" is not the same as "feeling real," which is also not the same as developing trust or a sense of belonging or experiencing safety and comfort online.

Social Comfort

In our previous research (Stewart et al., 2021), we sought to account for the idea of projecting one's self into the social space through the concept of *social comfort*. The term came from Carlon et al. (2012), who used "social comfort" to group five survey items together from the CoI survey. When we previously replicated Carlon et al.'s study, the same five items grouped together (Stewart et al., 2021). However, our attempts to code the qualitative data in this book's study for examples of *social comfort* led us to realize that the concept is insufficiently theorized.

When we revisited the original CoI survey and the preceding research that informed that survey's development, we were reminded that the items we (Stewart et al, 2021) and Carlon et al. (2012) associated with *social comfort* are related to what the original CoI researchers called "open communication" and "group cohesion" (Garrison et al., 1999). Garrison et al.'s (1999) initial definitions of those elements focused on establishing a sense of trust and acceptance. It was the CoI survey designers (Arbaugh et al., 2008) who chose the word "comfortable" to

measure that phenomenon. Kreijns et al. (2014) questioned this decision, arguing that *social comfort* emphasizes "feelings of comfort about the interaction … and not so much the interaction itself" (p. 9). They concluded that "the overall friendliness of online collaborative learning … is not a real dimension of social presence" (p. 9). In our earlier research (Stewart et al., 2021), we rejected Kreijns et al.'s (2014) removal of *social comfort* from the *social presence* construct because we believed that the extent to which students felt "comfortable" was different from *social perceptions* and might impact *social learning*.

We still hold the same belief, but as we analyzed the data for this book, we were repeatedly reminded that "feelings of comfort" and "overall friendliness" are heavily impacted by power dynamics that influence how students perceive their peers and project themselves into the online space (Brennan et al., 2022; Mittelmeier & Rienties, 2024). Our analysis of our case study data revealed a relevant example: in an interview, Snow discussed the impact of cultural and linguistic diversity on her experience with peer review.

Case Study Example 3: Cultural and Linguistic Diversity in Quinn's Course Section

Snow, an international student in Quinn's course section, gave an overall positive assessment of peer review, stating that she would want to have peer review the next time she wrote a text for a class. However, she also described facing barriers to *social learning* that she attributed to linguistic and cultural differences.

In the interview, Snow discussed her experience of encountering unfamiliar wording in her peers' writing, saying, "The words in other students' essay, some of them are new words to me, and I need to translate." In addition to these linguistic challenges, Snow noted how cultural differences affected her reading of uniquely American topics, such as Geoff's project about American football. As Snow explained, "Like, I know football is a very important sports for America. I think China sport is not as important as that in America. So, it is also a cultural differences. So maybe I can understand what her write, but it's a little difficult for me to understand such emotion about football because of my background of growing in China." These cultural differences were also apparent when Catherine, in feedback on Snow's paper, explained to Snow that she didn't understand the relevance of skin whitening products in Asia. Catherine suggested that Snow provide more context and historical background because the concept was new to her.

In her interview, Snow further noted that cultural differences impacted her peers' suggestions for improving her writing, saying, "They posted their comments, and they also say, 'I think you better blah blah blah,' but a little confused to me. Because I think maybe it's a cultural differences because our opinions and the voice of being so different. So, I can understand why they are so confused about some sentence I say. So, this is one of the problem." Snow suggested that her classmates may have misread or misunderstood her essay because "our opinions and the voice" were so different, which resulted in peer comments that Snow herself found confusing. Snow also indicated that these confusions were exacerbated

by the digital format of the peer-review workshop in the hybrid course section since she felt it cumbersome to ask follow-up questions in the Google Docs file, explaining, "So if you ask them about their comments, you should first ask them and you should also wait for them to reply you because it will take time and also because you are not face to face." According to Snow, posing questions also posed a risk of further miscommunication, noting, "If you ask them about their comments, it is possible that they're also confused about your questions. So, I think it's a trouble."

If we attempt to apply the concept of *social presence* to Snow's experience, we could argue that she developed some *social perceptions* of her peer review partners (because she became acquainted with Geoff's paper topic of American football), although we'd likely argue that her perception seems closer to knowing peers "as students" than "as people." If we look back to the data from Chapter 3, which shows correlations between almost all of the feedback Snow received and the revisions she made to the draft, then we could also argue that she experienced *social learning*. However, her interview told a different story—she argued that linguistic and cultural differences made it difficult for her to provide feedback to her peers, described the feedback she received as confusing, and stated that the digital activity design hindered her ability to ask questions. We believe something like "social comfort" would help us account for those elements, but we don't think "comfort" is the right word. Consequently, we call for a more robust theorization of this aspect of *social presence* in writing studies. As a starting point, we recommend future researchers put CoI in direct conversation with scholarship about racial, linguistic, and gender identity, (dis)ability, sexuality, and other forms of intersectionality (e.g., Inoue, 2014; Martinez, 2020; Matsuda, 2006; West-Puckett et al., 2023).

Attitudes

The final category that emerged from our earlier research on *social presence* (Stewart et al., 2021) was *attitudes*, which traditional CoI research has defined as the "potential for social interaction online" (Arbaugh, et al., 2008). Our attempts to code for when and why students had a positive or negative attitude about that potential were unsuccessful, in part because students often speculated on how they or their classmates might feel in different contexts. However, the students consistently and resoundingly agreed that a lack of interaction in either hybrid or online classrooms was problematic. We share that data here because, while we may not be able to report on how students felt about the *potential* for social interaction online, we can report that most of the students in hybrid and online course sections in this study believed their interaction was insufficient. If nothing else, this shows that students *desire* interaction, even if they don't think they need or want the "relationship" that CoI scholarship assumes results from that interaction.

More than half of the students (n=11) reported that the interaction in their hybrid or online course section was insufficient. Some students in hybrid sections lamented the brevity of their class time. For example, Sam said, "We only have it once a week and it's such a short period of time," and Isaiah noted, "You're only seeing them one time a week. Unless they were in your peer review group, you probably would never speak to them." Other students in hybrid sections suggested that the time they did have together wasn't well spent. In describing her in-class peer review in which students worked individually on Google Docs files, Catherine explained, "We're not talking while we're doing it, so we might as well be in different rooms doing it anyways. Like the—one of my draft peer reviewers was on the other side of the room and I was reading his essay, but I wasn't talking to him about it at all, so he might as well not even be in the same room." Jane made a similar comment, noting that "we don't always do interactive stuff" when meeting as a class.

Hannah described a similar experience and wondered if the online component of the hybrid course section was decreasing class participation:

> In class, there is very little interaction, and I think our teacher has started noticing that. I don't know if he likes it. Like, I think he realizes why it is, but he does seem like he wants more participation. And no one's giving it because most of our assignments are online, and we can do it ourselves.… So, I do think it's kind of hindering, like, actual participation in class.

Hannah suggested that, because most of the coursework was completed independently, in-class participation had decreased. She sensed that her instructor would like more interaction in class—which implied that he may have been trying to solicit student interaction and participation—but she and her classmates weren't engaging because, as she put it, "most of our assignments are online, and we can do it ourselves." It seems that this class established a pattern in which interactivity wasn't necessary for completing coursework, despite students like Hannah understanding the benefits of "actual participation in class."

When the students in online course sections expressed in their interviews a desire for more interactivity, they generally described weekly discussion forums that felt perfunctory. As Joel described it, "We do a discussion board every week or every other week, but other than that, that's the only interaction I had with any of those other students." In some cases, the students said there was zero interaction beyond peer review. For example, when asked, "Did you interact with your peers in other ways beyond peer review," Jordan responded, "No, not at all."

Unlike students' opinions about developing relationships with peers—in which they suggested that knowing peers as people wasn't necessary—there was a sense of frustration and resignation when they described not interacting. This suggests that some kind of student interaction—some kind of *social presence*—is necessary and desirable. But, unlike the near universal consensus over the subcategories for *teaching presence* and *cognitive presence*, current CoI

scholarship doesn't offer a sufficient conceptualization of *social presence* for us to offer a definitive list of categories that instructors and researchers can focus on when facilitating or studying it. Differentiating between "social perceptions" and "social learning" does seem useful. But we need more research to understand if *social perceptions* are necessary for *social learning* and why *social learning* doesn't necessarily result from students developing *social perceptions* of peers. We also suspect that a more robust theorization of the CoI concepts of "social comfort" and "attitudes" will provide more insight into how *social presence* can facilitate community-based inquiry in online writing courses.

Conclusion and Recommendations

While the students in hybrid and online course sections in this study discussed a desire for more interaction, they also articulated that interacting with peers didn't necessitate relationships or knowing their peers "as people." Given this, we recommend that future research explore and more precisely define and account for how "relationships" and "comfort" are operationalized in CoI literature. We use the word "relationship" in this study because it mirrors the way Short et al. (1976) initially defined *social presence*, and we use "comfort" because it mirrors J. Ben Arbaugh et al.'s (2008) operationalization of *social presence* in the CoI survey. The students in this study seemed to be interpreting the word "relationship" to suggest a kind of intimacy they didn't believe was necessarily for *social learning*, which leads us to call for a more thorough theorization of "comfort" as a component of *social presence*. Students also regularly demonstrated that they simultaneously experienced positive and negative *social perceptions* that both supported and hindered *social learning*, highlighting that *social presence* isn't a zero-sum game.

The examples we pulled from our case studies illustrate some of the diversity in students' experiences of *social presence* in their hybrid and online writing classrooms. Their experiences reinforce the importance of thinking critically about *social presence*. Thinking uncritically about *social presence* and assuming a particular or even "right" version of a student's presence when designing an online learning experience may work against students learning with their classmates. This is where writing studies conversations about power, language, and culture can inform both CoI and OWI discourse (Retzinger, 2018) as instructors work to create a space where students have the social and cognitive skills to develop interactive behaviors with each other in order to co-construct knowledge.

Based on our analysis of *social presence*, we offer two recommendations.

Recommendation 1: Offer Students Opportunities to Collaborate While Accounting for Diversity

Instructors should consider power relationships and linguistic and cultural diversity as they relate to designing and evaluating collaborative learning. Garrison

(2017) recognized the importance of this focus, noting that the goal of a community of inquiry is to "challenge inherent confirmation bias and the dangers of ideological certainty" through dialogue and reflection (p. 52). Jenna Mittelmeier and Bart Rienties (2024) have extended this work by calling for more research on the social inequities that result from power dynamics and sociocultural differences. Similarly, Carolyn Brennan et al. (2022) have advocated for a "critical transformative community of inquiry (CTCoI) model" that centers "equity in online courses" (p. 1). There is need for more work in this direction, specifically examining the impact of power dynamics and linguistic identity on the ways students participate in learning environments that aim to challenge ideological certainty. We also need studies that question which ideological certainties are *not* challenged in those learning environments. As Retzinger (2018) has argued, there is a need for *social presence* in writing studies that considers not only immediacy but also identity.

Snow's experience in Quinn's course section illustrates one example of how students would be better served by peer review that is designed to support linguistic and cultural diversity and that involves peers in co-constructing knowledge about that diversity. We recommend that instructors prepare students to benefit from peer review with all of their classmates—regardless of experience, subject knowledge, language, culture, or identity—by emphasizing insights to be gained from diverse readers.

We also recommend that instructors engage students in discussions about cultural and linguistic diversity in general and the myth of standard language in particular when introducing and demonstrating how to respond to peers' writing. Instructors can incorporate the work of scholars such as Paul Kei Matsuda (2006) and Vershawn Ashanti Young (2020) into the curriculum prior to peer review to emphasize that there isn't one right or best way to compose a text. The importance of having these conversations *prior* to peer review is corroborated by Carrie Yea-huey Chang's (2016) review of 20 years of research in second language peer review, which found training to be one of the best predictors of effective peer review. Likewise, Dan Melzer (2020) has recommended that instructors devote more time "to designing peer response and training students to respond to each other" by "designing scripts to guide student response, creating some degree of accountability for peer responses, and … devoting substantial time to training students in responding to their peers" (p. 28). This kind of training may have helped Snow and her classmates provide more useful feedback and could have created clearer pathways for them to ask questions when they received confusing feedback.

We relatedly recommend that instructors offer opportunities for students to communicate directly with each other so that they're able to discuss feedback following peer review—or to debrief following another collaborative activity. To facilitate this communication, instructors can help students learn one another's names early in the term, including pronunciation (e.g., phonetic spelling when

fully online) and pronouns. In a hybrid course, instructors can include both asynchronous components, for students who need additional time beyond the synchronous class peer-review workshop (Wang, 2014), and synchronous components, so that students have a chance to ask follow-up questions and receive immediate responses.

Recommendation 2: Redefine and Reconceptualize "Social Comfort"

Our analysis of *social presence* suggests that the students in this study valued peer interaction, but past conceptualization of the term isn't sufficient to describe FYW students' experience of *social presence*. Put simply, our findings illustrate that *social presence* is more complicated than "feeling real." One critical next step for research on *social presence* is to better account for power relationships and linguistic and cultural diversity in online and hybrid writing classrooms. As Retzinger (2018) has argued, instructors need to foster an online pedagogy "grounded in critical/cultural awareness" (p. 84).

One potential direction for this research is to critique "social comfort" in the CoI literature (Arbaugh at al., 2008), which has emphasized students' level of comfort as they interact with their peers. The conception of *social comfort* as a goal elides the fact that productive discourse across cultures, languages, or positionalities might indeed be uncomfortable and, by necessity, challenge existing power relations. As an alternative to focusing on comfort, future research should account for the ways that systemic inequity impacts students' ability to "project" themselves into the social space and might explore how student positionality and social commonality enhance or hinder *social perceptions* of peers. Some consideration of *attitudes* may also be warranted, as *attitudes* are likely to impact students' willingness to engage and their perceptions of that engagement. However, we recommend future research move away from a focus on *attitudes* about the potential for *social learning* online and focus more on how current *attitudes* about interacting with peers affect the other aspects of *social presence*.

Chapter 5. Teaching Presence: Designing for Social and Cognitive Presence

In this chapter, we discuss examples of *teaching presence* that intend to facilitate *social presence* and *cognitive presence* in the hybrid and online first-year writing classroom. We present interview data and artifact analyses in addition to case studies that illustrate the wide range of peer review designs we observed. Ultimately, we advocate for writing instructors of all modalities to employ the three elements of *teaching presence* in the CoI framework—*instructional design*, *direct instruction*, and *discourse facilitation*—as a guiding heuristic for designing and facilitating peer-review workshops and other collaborative learning activities. We additionally recommend that instructors intentionally create opportunities for *cognitive presence* through their *instructional design* and *direct instruction* and create opportunities for *social presence* through their *discourse facilitation*. Figure 5.1 offers a visualization of the relationship between *teaching presence* and *cognitive presence* and *social presence*: *teaching presence* leads to *cognitive presence* through *instructional design* and *direct instruction,* and *teaching presence* leads to *social presence* through *discourse facilitation*. *Social presence*, in turn, creates the opportunity for *cognitive presence*.

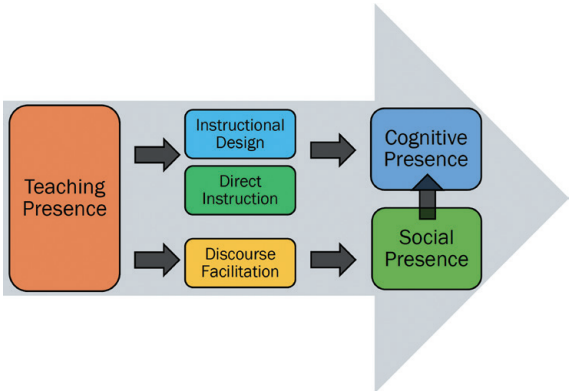


Figure 5.1. Teaching Presence Leads to Cognitive Presence and Social Presence.

History and Theory of *Teaching Presence*

Teaching presence relies on the instructor's pedagogical choices involving *instructional design*, *direct instruction*, and *discourse facilitation*. *Instructional design*, as explained by Garrison et al. (1999), "includes the selection, organization, and primary presentation of course content, as well as the design and development of learning activities and assessment" (p. 90). *Direct instruction*

typically occurs in writing courses when instructors provide feedback or offer additional resources to guide students' learning. *Discourse facilitation* "is critical to maintaining the interest, motivation and engagement of students in active learning" (Anderson et al., 2001, p. 7); it involves the instructor creating spaces for interaction and explicitly encouraging that interaction. In a community of inquiry, the goal of all three functions of *teaching presence* is to facilitate *social presence* and *cognitive presence*—the instructor creates an environment in which students are likely to interact and then guides that interaction toward knowledge co-construction.

Applied to peer review, *instructional design* involves creating the workshop design, including planning for modality, scaffolding activities, and creating materials that students engage with throughout the peer review process. *Direct instruction* might include modeling or providing instructions about how to peer review, directing students to engage in the peer workshop itself, and providing additional information during a post-workshop discussion. *Discourse facilitation* involves fostering peer interaction during any stage of the peer review process.

Many OWI scholars have studied course design and facilitation, even if they haven't framed their conversations with the concept of *teaching presence*. Some scholars have focused on tools, such as the role of the instructor in online discussion forums (Mazzolini & Maddison, 2007; Warnock, 2009) or the role of analytics in a learning management system (Duin & Tham, 2020). Others have focused on modality, comparing asynchronous and synchronous modes of interaction (Mick & Middlebrook, 2015), providing strategies for instructor-facilitated synchronous online writing workshops in asynchronous courses (Warnock & Gasiewski, 2018), or sharing successes with combining synchronous and asynchronous activities in hybrid courses (Borgman & McArdle, 2019)

Our scholarship moves away from a focus on the efficacy and affordances of a particular tool or (combination of) modality(ies) (Stillman-Webb et al., 2023). This isn't to say that tools and modalities are neutral, but rather to recognize that because tools and modalities aren't neutral, they must be navigated within institutional contexts (Bartolotta et al., 2023). Consequently, we present the CoI framework as a heuristic for course design that can be applied across multiple modalities as well as across available tools for facilitating student interaction. *Teaching presence* is crucial to that application because it gives instructors a starting point for navigating their contexts to design hybrid and online writing courses with the potential to facilitate *social presence* and *cognitive presence*. In what follows, we provide a brief overview of the various ways instructors in our study designed peer-review workshops, and then we look closely at the interviews, observation notes, and instructional artifacts we collected from our three case studies. We organize our analysis around the three components of *teaching presence*, examining the extent to which instructors employed *instructional design* and *direct instruction* to articulate their intended *cognitive presence* goals to students and how they employed *discourse facilitation* to cultivate *social presence*.

No One Right Way: A Variety of Peer Review Designs and Activities

One reason we emphasize that the CoI framework is a heuristic that can be applied across multiple contexts is because of the considerable variety of workshop designs we observed across just nine composition classrooms. Rather than recommend one right or best way to design peer review, this book uses peer review to illustrate how the CoI framework can be applied to writing pedagogy. We first present the peer review designs we observed in our study sequentially, demonstrating how the instructors created asynchronous and/or synchronous pre-workshop, actual workshop, and post-workshop activities. Then, we present the designs through the lens of the CoI framework, demonstrating how the instructors enacted *instructional design*, *direct instruction*, and *discourse facilitation*. Figure 5.2 illustrates each instructor's modes of interaction during the peer review process.

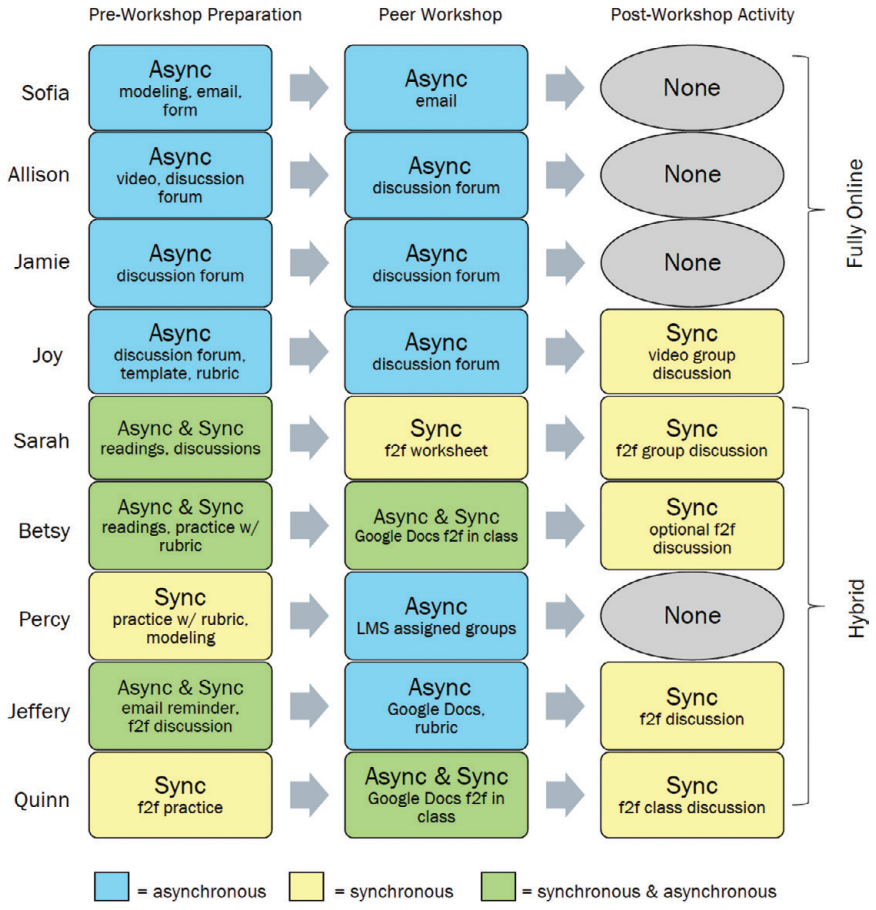


Figure 5.2. Instructors' Peer Review Designs, Presented Sequentially.

Examining these designs through multiple lenses provides insight into how peer review functions and illuminates the complex decisions instructors make to design and facilitate the activity. Such examination also demonstrates the flexibility of the CoI framework, supporting our larger argument that this heuristic can be used to design a wide range of collaborative activities across multiple modalities. As Figure 5.2 illustrates, all the instructors of fully online course sections designed asynchronous pre-workshop and actual workshop activities. Only one of these four instructors designed a post-workshop activity, and it was synchronous. There was more variety across the designs used by the instructors of hybrid course sections. Three of these instructors created pre-workshop activities that combined asynchronous and synchronous activities, and two created pre-workshop activities that were synchronous only. For the actual peer-review workshop, one instructor of a hybrid course section created a fully synchronous workshop, two created fully asynchronous workshops, and two created a combination of asynchronous/synchronous workshop activities. Four of the five instructors of hybrid course sections created synchronous post-workshop activities, while the fifth didn't create a post-workshop activity.

Structuring the same information differently, Table 5.1 organizes the course activities into the three CoI categories of *teaching presence*: *instructional design*, *direct instruction*, and *discourse facilitation*. This organization illustrates that, regardless of modality, all instructors in the study applied the three categories of *teaching presence*.

The "Instructional Design" section of Table 5.1 lists the nine *instructional design* activities or materials we observed, as well as which instructors employed them: written or video instructions, in-person or online lesson planning, LMS module building, peer review quiz or readings, presentation/lecture, rubric, and worksheet. *Instructional design* is the planning that instructors do as they identify goals (i.e., anticipated *resolutions* from *cognitive presence*) and then construct activities and materials to help students meet those goals. Some of these elements of *teaching presence*, such as lesson plans, are intangible or at least not visible in student-facing artifacts. What's tangible are the student-facing materials that instructors create; as such, we use instructor-created materials as our primary data point for instructional design. We examine those materials more closely in the case study section of this chapter, exploring the extent to which the student-facing materials contained evidence of instructors articulating their intended *cognitive presence* goals to students.

The "Direct Instruction" section of Table 5.1 lists which instructors employed the seven *direct instruction* activities or materials we observed: email/announcement, synchronous or asynchronous feedback on a draft, synchronous or asynchronous feedback on peer review, and synchronous or asynchronous instructor intervention. *Direct instruction* occurs as instructors guide their students to interact with the materials and activities they have designed. *Direct instruction* primarily involves instructor-student and student-content interaction: instructors send emails, post

announcements, provide feedback, assign readings, introduce students to worksheets and rubrics, and verbally interact with students. The goal of most of this interaction is to make the instructors' intended goals of the activity (i.e., anticipated *resolutions*) transparent. In the case study section of this chapter, we analyze collected artifacts and observation notes, examining the extent to which each case study instructor's *direct instruction* aligned with their stated *cognitive presence* goals (to *gain fresh perspective*, *learn from seeing peers' writing*, and/or *improve text*).

Table 5.1. Instructors' Peer Review Designs, Organized by the CoI Framework for Teaching Presence

Activity	**Online Course Section**				**Hybrid Course Section**				
	Sofia	**Allison**	**Jamie**	**Joy**	**Sarah**	**Betsy**	**Percy**	**Jeffrey**	**Quinn**
Instructional Design									
Instructions (written)	X	X							X
Instructions (video)		X							
Lesson planning (in-person)					X	X	X	X	X
Lesson planning (sync, online)				X	X	X	X	X	X
LMS module building	X	X	X	X					
Peer review quiz					X				
Peer review readings			X	X	X	X	X		X
Presentation/lecture					X				
Rubric	X						X		
Worksheet (sync)					X				
Direct Instruction									
Email/announcement	X								
Feedback on draft (sync)					X		X		X
Feedback on draft (async)	X	X	X			X		X	X
Feedback on peer review (sync)					X				
Feedback on peer review (async)	X	X	X	X	X	X	X	X	X
Instructor intervention (sync)					X	X		X	X
Instructor intervention (async)		X						X	

Activity	Online Course Section				Hybrid Course Section				
	Sofia	Allison	Jamie	Joy	Sarah	Betsy	Percy	Jeffrey	Quinn
Discourse Facilitation									
Author's note	X								
Discussion forum		X	X	X					
Discussion (sync, in-person)					X	X	X	X	X
Discussion (sync, online)				X					
LMS-assigned peer review							X		
Marginal comments	X		X	X	X	X		X	X
Modeling/practice (async)	X				X	X	X	X	
Modeling/practice (sync)							X	X	X
Worksheet (async)									X
Worksheet (sync)					X				X

The final section of Table 5.1, "Discourse Facilitation" lists the ten activities or materials that instructors employed to facilitate student discourse: author's note, discussion forum, in-person or online discussion, LMS-assigned peer review, marginal comments, asynchronous or synchronous modeling/practice, and asynchronous or synchronous worksheet. Discourse facilitation involves getting students to interact with one another; in this study, it typically involved students practicing peer review by writing to one another in the form of author notes, discussion posts and replies, worksheets, and marginal comments. In courses with synchronous components, discourse facilitation also involved oral discussion. Our analysis of the artifacts and observation notes affiliated with the case study instructors' discourse facilitation focuses on social presence: we interrogate the extent to which discourse facilitation guided students to form social perceptions of their peers.

Case Studies: Instructional Design, Direct Instruction, and Discourse Facilitation

In what follows, we describe the ways three case study instructors—Sarah, Quinn, and Sofia—each engaged in *instructional design*, *direct instruction*, and *discourse facilitation* for the peer-review workshop. In our discussion of *instructional design* and *direct instruction*, we examine the extent to which instructors articulated their intended *cognitive presence* goals (i.e., *gain fresh perspective*, *learn from seeing peers' writing*, *improve text)* to their students. In our discussion of *discourse*

facilitation, we examine the extent to which instructors prompted students to develop *social perceptions* of each other. Ultimately, our goal is to demonstrate how *teaching presence* can be engaged to assess the extent to which instructors are designing activities that are likely to facilitate community-based inquiry.

Instructional Design

In all three case studies, we saw evidence of instructors' materials enacting their articulated goals (i.e., the *resolution* of *cognitive presence*) for the workshop, but we also noticed evidence of implicit or implied goals. Most materials guided students toward sharing and learning from *fresh perspectives*, which was in line with the instructors' stated intentions. The majority of materials also emphasized *improve text*—even if the instructors stated that this wasn't the primary objective of the workshop. None of the materials emphasized *learn from seeing peers' writing*, despite three instructors' statements that they valued that goal of peer review. The implication for writing instructors is that first should come defining the primary purposes of peer review in terms of students' *cognitive presence* and then should come working to foreground those goals in the student-facing materials created during the instructional design process.

Sarah

As described in Chapter 3, Sarah maintained that the goals of peer review included *learn from seeing peers' writing* and *improve text*. All three of her students described the goal of peer review as *improve text*, but only one of the three (Jane) described *learn from seeing peers' writing* as a goal of peer review. All three students also mentioned *gain fresh perspective* as a goal of peer review.

Sarah attempted to achieve the goals of *learn from seeing peers' writing* and *improve text* through a peer review process that included asynchronous readings completed outside of class and discussed synchronously during face-to-face meetings, an asynchronous quiz about peer review practices based on a presentation and assigned readings, a synchronous peer workshop completed face-to-face, and a synchronous follow-up with the whole class. Sarah's students formed their own groups during each peer workshop, some choosing classmates with whom they worked before and others choosing new group members. Sarah asked students to bring paper copies of their essay drafts or electronic versions if they were comfortable sharing their devices with group members. Figure 5.3 visualizes the design of Sarah's peer workshop, presenting it as a timeline that differentiates between *instructional design*, *direct instruction*, and *discourse facilitation*. We begin with a focus on the first rectangle in Figure 5.3 to examine whether Sarah's *instructional design* created an environment in which her intended goals for peer review (*learn from seeing peers' writing* and *improve text*) were likely to be achieved. Later in the chapter, we analyze the extent to which her *direct instruction* supported her *cognitive presence* goals and whether her *discourse facilitation* led to *social presence*.

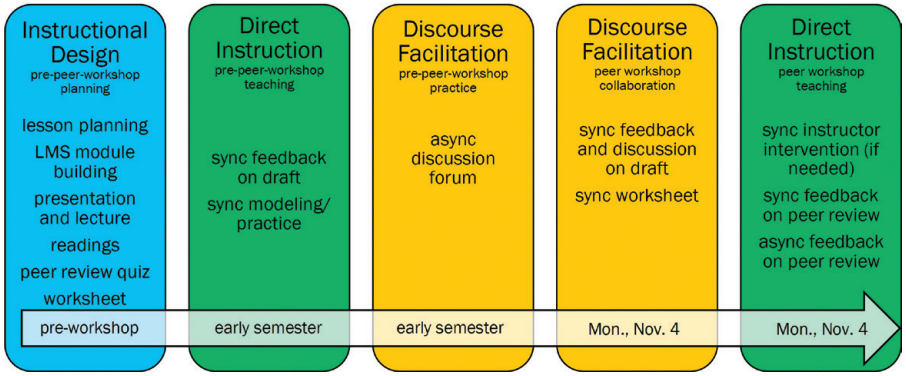


Figure 5.3. Sarah's Peer Review Design, Monday/Wednesday Hybrid Class.

Sarah talked about her *instructional design* in terms of how she scaffolded the drafting and peer review within the larger writing project, saying that she and her students

> … start with a topic proposal, so we narrow down their topic and we talk individually about that. And then we do an annotated bibliography where they list their sources and then they have a summary of that source and how they plan to use it in their paper. And then they have the first draft which is what you will be peer reviewing and then they will have a final draft. Sorry. Back up. Then they meet with me to get my feedback and then they have a final draft due after that.

Sarah also mentioned that she'd woven the concepts of "local," or surface-level, and "global," or meaning-level, writing concerns "throughout the semester to try and make sure that they really understand that" and bring that understanding into peer review.

To prepare students for peer review, Sarah asked them to read and refer to an Adobe Spark (now Express)[4] page that a fellow graduate instructor had created. The guide defined peer review as "the process of evaluating and responding to the work of your peers, in order to improve … their writing. As writers, peer review gives us the opportunity to see how our work comes across to a reader." This definition echoes Sarah's explanation in her interview that *improve text* was a key goal of the peer review in her course section. The definition also invokes the goal of *fresh perspectives* by noting that peer review lets writers see how their "work comes across to a reader."

4. Adobe Spark, which later became Adobe Cloud Express and is now known as Adobe Express, is a cloud-based design program that aims to make digital creation accessible to non-expert users.

The guide then offers a series of recommendations on how to produce peer feedback, which Sarah reinforced with a nine-question quiz, shown in Figure 5.4. The quiz emphasized starting with global, or meaning-level, feedback before offering local, or surface-level, feedback, and on asking questions like, "Could you explain what this term means? This might help the reader follow the connection you are making between ____ and _____." In this way, the quiz reinforced the peer review goal of *gain fresh perspective*.

Question 1 (1 pt)
When you first receive a draft from one of your peers, what is the first thing that you should do?
*Ask about the context & purpose
Start reading through their introduction
Make sure that it is in the correct format
Skim through for grammar mistakes

Question 2 (1 pt)
Based on what you have read, what concerns count as global concerns? Select ***all*** of the answers that apply.
*The organization
*The thesis statement
The spelling & punctuation
*The supporting evidence

Question 3 (1 pt)
True or False: When commenting on a peer's draft, we should always try our best to use "I" statements.
*True
False

Question 4 (1 pt)
True or False: During peer review, proofreading & editing is the most important concern to address.
True
*False

Question 5 (1 pt)
True or False: An example of a helpful peer review comment might be: "I really like this paragraph."
True
*False

Question 6 (1 pt)
True or False: An example of a helpful peer review question might be: "I am not sure what you mean by this. Could you explain what this term means? This might help the reader follow the connection you are making between ____ and _____."
*True
False

Question 7 (2 pts)
Based on what you have learned, match the peer review steps on the right with the pieces of a paper that you look at during that step. [*ordered correctly]

First, I should look at…	Global concerns, like organization, thesis statements, and evidence.
Next, I should Look at…	The paragraph level, like cohesion, main ideas, and connections to the overall thesis.
Finally, I should look at...	Local concerns, like grammar, style, word choice, and sentence structure.

Question 8 (1 pt)
During peer review we should do each of the following, ***except:***
*Point out every grammatical mistake
Use "I" statements
Ask questions as an interested reader
Be specific and kind

Question 9 (1 pt)
As writers, we need to make all of the changes that our peer reviewers suggest.
True
*False

Figure 5.4. Sarah's Peer Review Quiz Questions.

Peer Review for On Your Own

- What is the author's topic and main point?
- Why did the author choose this topic? What is the Kairos of the topic?
- Which issue, or stasis, of that topic is the author focusing on?
- Who is the imagined audience?
- Identifying at least one specific reason the author uses to support the main claim. (If you have trouble identifying it, talk about that.)
- What evidence is used to support the author's argument?
- How relevant is that evidence?
- Identify at least one example of ethos or pathos. How effective does it seem, based on the imagined audience?
- How effective is the introduction and conclusion? What specifically should the author do differently?
- How cohesive is the author's draft? Find specific examples of effective cohesive devices (transitions, repetition, etc.) and point to places where the "flow" seems to break down.
- How varied are the author's sentences? Find specific examples in which the author uses different structures (like coordination and subordination) effectively and point to places where sentences need more variety.
- How concise are the author's sentences? Find specific examples in which subjects are clear, verbs express action, and the writer avoids empty words—and point to examples in which sentences have a lot of prepositional phrases that might make the subject and the action hard to find.
- How is the draft's arrangement/organization? Are there paragraphs that could be switched to help with cohesion? Are there sentences that could be re-arranged as well?
- How appropriately is the author using punctuation? Point to specific examples of effective uses and/or uses that need revision.
- How appropriate do you think the author's vocabulary is for the imagined audience?

Figure 5.5. Sarah's Peer Review Worksheet.

These goals were once again reinforced by the peer review worksheet (see Figure 5.5) that Sarah handed to each student during the workshop.

Sarah emphasized modeling peer review to prepare students for the workshop and pointed to the worksheet as a resource to guide feedback. And, while Sarah never related the goals of peer review to the questions she included on the worksheet, they seem to align. Most of the questions on the worksheet asked students to describe their understanding of the text as a reader, which solicits *fresh perspectives*. Several bullet points also asked the reviewer to "find specific examples" of where sentences or paragraphs can be revised, which relates to the goal of *improve text*.

Given the emphasis on *gain fresh perspective* and *improve text* throughout the workshop materials they were given, it isn't surprising that all three students we interviewed from Sarah's course section named *gain fresh perspective* as a goal of peer review and that two out of the three named *improve text*. What wasn't present in these materials was a discussion of *learn from seeing peers' writing* as a goal of peer review. And yet, in the interview, Sarah explained, "The benefit of peer review is reading other people's work to see how other students are approaching the same assignment, and that seems to be the most beneficial part for them." It seems that the "most beneficial" part of peer review is implicit rather than explicit in Sarah's *instructional design*, which may explain why only one of the students we interviewed from her course section named it as a goal of peer review.

Quinn

In our interviews with her, Quinn maintained that the goals of peer review included *gain fresh perspective* and *learn from seeing peers' writing*. Two of her students, Geoff and Catherine, named *gain fresh perspective* as a goal of peer review; one, Snow, named *learn from seeing peers' writing* as a goal; and two, Geoff and Snow, named *improve text* as a goal. In the materials Quinn designed for the peer-review workshop, there was ample evidence of *gain fresh perspective* and *improve text* as goals, even though Quinn didn't name *improve text* as a goal of peer review. As with Sarah, *learn from seeing peers' writing* wasn't explicitly articulated in the workshop materials, even though Quinn, like Sarah, named it as a goal.

Quinn divided her peer-review workshop into two synchronous sessions: one face-to-face "pre-draft workshop" that took place on a Tuesday and one virtual "draft workshop" that took place on a Thursday. In the face-to-face session, Quinn asked students in each group to copy a portion of their draft-in-progress into a group Google Docs file and then create feedback for their peers; in the virtual session, students copied a complete draft into the same Google Docs file they used for the face-to-face session and created additional feedback for peers. Quinn kept her students in the same groups for the entire semester, and each group used the same Google Docs file for all of their peer-review workshops, creating a lengthy document that students could scroll through to see classmates' previous drafts. Figure 5.6 visualizes Quinn's workshop design. As in the previous section, we focus here on the first rectangle, examining the extent to which Quinn's *instructional design* supported her *cognitive presence* goals. We turn our attention to *direct instruction* and *discourse facilitation* later in the chapter.

In an interview prior to the workshop, Quinn explained how she had organized the peer review to support student learning objectives (i.e., *cognitive presence*):

> So, they're trying to understand how do they take the research and not just present the evidence, summarize it and see what are the key questions here, but now they're trying to understand: how do I actually take this evidence in, use it to underscore my own thesis argument? … In this phase, right now they are drafting the types of arguments that they want to include, finding their sources.

Quinn's explanation offers evidence of how she designed the workshop to achieve cognitive presence by focusing on understanding and applying secondary sources prior to giving and receiving peer feedback. She also spoke of her rationale for employing the same peer review groups all semester, saying, "One reason I like to keep them in the groups is I like them to observe each other's journey from seeing the initial research process all the way to the end so that they can, again, all understand where one another are coming from, and see the writing process."

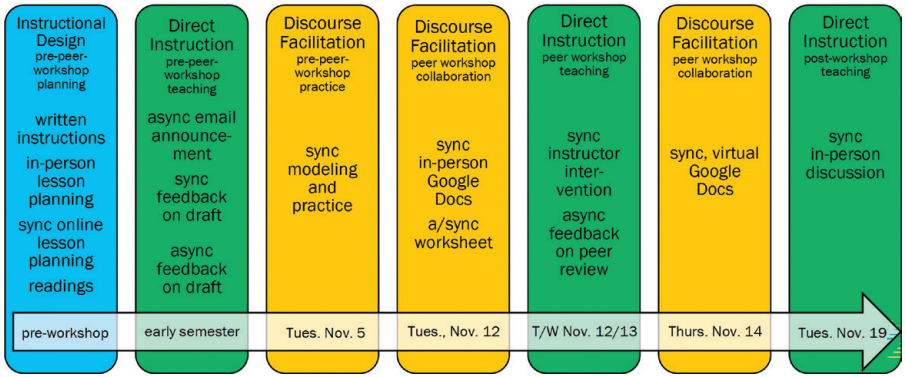


Figure 5.6. Quinn's Peer Review Design.

To prepare students for the workshop, Quinn provided written instructions that she copied to the top of each peer review group's Google Docs file. Figure 5.7 shows the instructions for Tuesday's face-to-face session and Figure 5.8 shows the instructions for Thursday's virtual session.

Position Paper Pre-Draft Workshop 11/12

Objectives
-Continue to "recycle" and forward Inquiry Essay research to incorporate into your Position Paper
-Begin to outline and prepare your materials for Thursday's draft workshop
-Practice offering constructive feedback.

Materials
-Inquiry Essay
-Discussion board posts # 9, 10, 11, and 12
-Position Paper Guide
-Draft Workshop Guide

Instructions
1) Using the Position Paper Guide, write the different parts of the argument categories for your paper (intro, narration, partition, confirmation, refutation, conclusion) below this prompt.
2) Review your Inquiry Essay, "Collaborations" style workshop activity from last Thursday, and discussion board posts # 9, 10, 11, and 12. Beneath the categories you've created, please paste all of the paragraphs and argument outlines that you'd like to include in your Position Paper.
3) Choose a paragraph that you'd like to work on for this workshop. Take 10 minutes to revise and/or draft this paragraph. Highlight or bold the text so that it's clear which paragraph you're working on. If you finish one paragraph during the allotted time, you may begin to work on another one.
4) When prompted, please begin to review others' drafts and outlines within your Google Doc. Using the add comment feature, please offer at least one comment on each peer's work. Your comments should reflect one of the assignment expectations within the Draft Workshop Guide (quality of argument, organization, evidence, and style).

Figure 5.7. Instructions for Quinn's Tuesday Face-to-Face Pre-Draft Workshop.

Position Paper Draft Workshop 11/14

Materials

-Inquiry Essay
-Discussion board posts # 9, 10, 11, and 12
-Position Paper Guide
-Draft Workshop Guide

Instructions

By 12:30pm on Thursday, November 14th, please update your drafts below. At a minimum, please include at least one paragraph per outline section (introduction, narration, partition, confirmation, refutation, conclusion).

Please review each draft and offer two types of feedback:

(1) marginal comments that appear on the side of the document (at least 4 per draft)

(2) 2-3-sentence endnotes that summarize the overall strengths of each essay and areas in which the authors could improve.

See the draft workshop guide for advice on what type of feedback to provide. This document may also be helpful to you as you revise your own essays, since these are the primary categories I'll be looking at when grading your essays.

Figure 5.8. Instructions for Quinn's Thursday Virtual Draft Workshop.

In Tuesday's face-to-face workshop, students were instructed to select a paragraph to work on and to leave one comment on their peer's paragraph that reflected one of the assignment expectations, which were detailed in the draft workshop guide titled "Draft Workshop—Position Paper" (see Figure 5.9). For Thursday's synchronous online workshop, students copied an updated draft into the Google Docs file; this draft needed to include at least one paragraph per outline section. Then, on their peers' drafts, they created at least four marginal comments and a two-to-three sentence endnote that summarized strengths and identified areas for improvement. As on Tuesday, students were directed to the draft workshop guide for information on types of feedback to provide (see Figure 5.9); as illustrated in Figures 5.7 and 5.8, this workshop guide could be accessed via a hyperlink in the workshop instructions.

As shown in Figure 5.9, the instructions to consider particular aspects of the draft and the guiding questions that prompted feedback reinforced the peer review goals of *gain fresh perspective* and *improve text*. *Gain fresh perspective* was solicited by the questions that invited the reader's assessment of the draft, such as whether the argument was contestable and clear and whether the confirmation and refutation paragraphs reinforced the thesis. Despite Quinn not emphasizing *improve text* as a goal of peer review in her interview, the draft workshop guide included references to improving a text, such as asking the reviewer to make recommendations for reorganizing paragraphs and to find proofreading errors.

Draft Workshop – Position Paper

Argument: Take a look at the partition paragraph and thesis statement.

- To what extent is the proposal argument specific, unique, reasonable, contestable, and clear?
- Does the partition paragraph effectively present a variety of different arguments that the writer will consider?
- In the confirmation and refutation paragraphs, does the writer nicely reinforce one's thesis?

Organization: Consider the arrangement of paragraphs within the paper and/or proposed outline.

- Does the paper include all six parts of a full argument: introduction, narration (background information), partition (thesis), confirmation, refutation, and conclusion?
- To what extent are transitions between sentences and paragraphs logical?
- Would you recommend that any paragraphs be rearranged for a better effect? Could confirmation and refutation paragraphs be arranged chronologically, by stakeholder or sub-argument, etc.?

Evidence/Research: Examine the presentation of evidence and research within the confirmation and refutation paragraphs.

- Are all generalizations effectively supported with specific evidence?
- Does the writer thoroughly introduce and clearly contextualize all quotations, data, and paraphrases?
- To what extent do the sources referenced seem credible?

Style/Conventions: Review the word choices, transitions, grammar, and punctuation.

- To what extent does the paper include sophisticated sentence structures, word choices, and general organization of ideas? Does any information seem too repetitive, vague, or convoluted?
- Can you find any proofreading errors or MLA formatting issues?
- Is the tone appropriate for an academic audience, and does the writer effectively utilize rhetorical appeals (ethos, logos, pathos)?

Figure 5.9. Quinn's Draft Workshop Guide.

In an interview, Catherine confirmed that she followed these instructions, leaving "a few marginal comments and then … a few sentences at the end, just like kind of giving our general view of the paper." As described in Chapter 3, Catherine tended to leave *meaning-level feedback*, while her peers Geoff and Snow left both *meaning-level feedback* and *surface-level feedback*. This is in line with Quinn's *instructional design*; in the interview, she noted that students could leave both marginal comments and endnotes as well as "use the track changes suggesting feature on the Google Docs [to] add a comma or change punctuation … directly on the document."

While Catherine was clearly aware of Quinn's instructions, she stated that Quinn didn't provide instruction about how to create peer review comments, saying, "She has her guidelines obviously … or she'll have us read something to prepare, but it's not really necessarily like, 'Here's how you do it.' It's definitely more open to however you best think that you can help the other person." Geoff similarly commented, "She gives us, like, I guess, like the basis for what we should pick up on … and we kind of just have to, like, go from there." These students understood that the draft workshop guide listed several questions that they might answer but that they didn't have to answer them all. Instead, they understood that the guide demonstrated the types of comments they should create, all of which seems in line with the goals of offering *fresh perspectives* that lead to *improved texts*.

Quinn also noted that the three types of comments her students created during peer review—marginal, endnote, editing—mirrored her own feedback style, remarking, "That is mimicking how I grade my students' papers. I do

those three types of changes … as well." Quinn's workshop design led students to directly engage with each other's writing, composing peer review comments that would share *fresh perspectives* and assist classmates in revising/*improving their texts*. It is also worth noting that, while both workshops were designed to be synchronous—students were expected to log into the Google Docs files at the same time during the in-class Tuesday session and online Thursday session—the technology-mediated distance between the participants and their physical distance when in the classroom gave the workshop an asynchronous feel. There wasn't a notable difference in the *instructional design* for the two sessions, despite one being face-to-face and one being virtual. As Snow put it, "Because both of the in-class and online work is on our laptops, I don't think there are too many differences."

Sofia

Sofia named all three of the top-mentioned goals of peer review in her interviews: *gain fresh perspective*, *learn from seeing peers' writing*, and *improve text*. Two of her students, Courtney and Ada, named *gain fresh perspective* as a goal of peer review; one, Ada, named *learn from seeing peers' writing* as a goal; and two, Courtney and Emily, named *improve text* as a goal.

To achieve these goals in her asynchronous course section, Sofia used email to facilitate textual exchange and response. The week before the peer-review workshop, students sent their drafts along with an author's note that described the types of feedback they sought from their peer reviewers. Sofia emailed each student with a peer's draft to review and a peer review worksheet, instructing them to read their peer's document, answer questions from the author's note, and fill out the peer review worksheet, which was included as a Word document in a weekly folder in the LMS. Students were asked to email their feedback to the peer, copying the instructor. While not required in the instructions, many students also chose to write comments in the margins of their peer's paper. Sofia grouped the students randomly, placing them in pairs (or in a group of three if there was an odd number of students, each of whom reviewed one group member's draft); these were different groupings than with the Essay 2 peer review earlier in the semester. Figure 5.10 visualizes Sofia's workshop design according to the three categories of *teaching presence*. In what follows, we focus on Sofia's *instructional design*; later in the chapter, we turn our attention to *direct instruction* and *discourse facilitation*.

In her pre-workshop interview, Sofia mentioned that she had designed the project so that students first composed an outline of their essay, then received feedback from the instructor on the outline before composing a draft. She also noted that she intentionally lightened the workload during the week of peer review, saying, "I don't give them a ton of assignments on the weeks that they have a review, so it's not like they are—they're just working on their essay, and they're working on reviewing somebody else's paper."

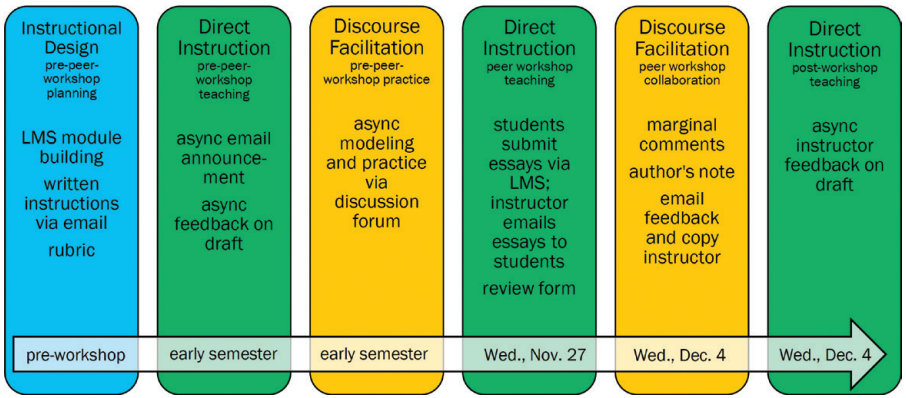


Figure 5.10. Sofia's Peer Review Design.

To prepare students for peer review, Sofia emailed each student with instructions (see Figure 5.11), attaching the peer's draft, as well as a blank peer review worksheet (see Figure 5.12). In her interviews, Sofia discussed her rationale for using email for peer review. She noted that she didn't conduct peer review through the discussion board of her LMS because she used the whole-class discussion as more of an informal space for low-stakes discourse: discussions were worth only a small number of points (five out of 1,000 for the course), whereas peer review was worth ten points. She also explained that she used email for peer review because it's more private for students than posting to class discussion. Finally, Sofia implied that email brought a sense of personal connection, saying, "I like the email because it's almost like you are standing in front of the student's desk in the classroom and saying, 'Here, it's from me.' Do you know I mean?"

Emily, Courtney, and Ada,

You were placed in a group of three for this peer review (see attachments). **Courtney, you are reviewing Emily's paper. Emily, you are reviewing Ada's paper. Ada, you are reviewing Courtney's paper**. This is what you need to do:

1. Read the author's note. Some essays have it on page 1, and others at the end of the paper before or after the Works Cited.
2. Download the peer review sheet (attached) and save it on your computer.
3. Read your peer's paper (attached), making comments as you go. I suggest that you write your comments in bold so they stand out to your peer.
4. Answer the author's note and complete the peer review form. There may be some overlap in your answers to the author's notes and the comments on the peer review form, and that is OK.
5. Email your feedback back to your peer and copy me on the email.
   Emails: [omitted]

You can earn up to 10 points for reviewing your peer's paper, but I will not know to give you the points if I do not see your email exchange.

DUE Date: Wednesday, 12/4. Earlier peer reviews are welcome.

As always, email me with questions.

Dr. [omitted]

Figure 5.11. Sofia's Email to Students With Peer Review Instructions.

Peer Review 3

To:
From:
Date:

Suggestions to the writer: Write below three suggestions on how to improve the essay.

Suggestion 1

Suggestion 2

Suggestion 3

Figure 5.12. Sarah's Peer Review Worksheet.

While we might have interpreted email communication as *direct instruction* in Sarah's or Quinn's classrooms, we include it as evidence of *instructional design* for Sofia because it was the primary way students accessed instructions for peer review. Figure 5.11 shows Sofia's email to Emily, Courtney, and Ada. The peer review worksheet attached to the email (described alternately as the "peer review sheet" and the "peer review form" in Sofia's email) was open-ended—students were merely directed to "write three suggestions on how to improve the essay" (see Figure 5.12).

The directive in the peer review worksheet to create suggestions that will "improve the essay" clearly illustrated *improve text* as a goal of peer review. The open-ended format of the suggestions also implied the goal of *gain fresh perspective*.

The seemingly sparse instructions in the peer review worksheet were likely because the students were also responding to the writer's author's note—instead of directing students to focus on specific aspects of the essay as did Sarah and Quinn, Sofia's workshop design was directed toward the author's needs. Courtney noted that she used Sofia's feedback on her Essay 1 draft (for which there was no peer review) as a model for how she should give feedback to her peers:

> The first one, the professor would make comments and talk about what she saw needed improvement, and she gave us a few pointers. Like, for example, she gave us five examples of major things she wanted us to change, or she thought that we could make better. So, I think that those ideas gave us ideas of what she wanted [us] to [give as feedback] to our peers.

In this course design, Sofia provided feedback on Essay 1, which (for students like Courtney) served as a model for how they should approach peer review in Essay 2. However, this scaffolded approach wasn't apparent to all students. When asked how her instructor prepared her for peer review, Ada said, "I mean, it wasn't

really prepared. I think she just put something out, saying that you guys are going to be doing a peer review."

Sofia expressed satisfaction with the peer review, focusing on how the workshop achieved the goal of *learn from seeing peers' writing*:

> It was successful in the sense that—and that's something that one of my students wrote in her literacy narrative—she wrote something about how she read her peer's writing, and she kept comparing her own writing with the peer's writing. And it is my goal, my number one—well, I know that we tell them the number one goal is for you to give feedback to a peer, but really my number one goal is for them to see other people's writing, their peers' writing, to see how their peers tackle that particular topic, and then, you know, to provide feedback.

As with Sarah and Quinn, the goal of *learn from seeing peers' writing* wasn't explicit in any of Sofia's course materials. However, she believed that this was the "number one goal" of peer review. Sofia further acknowledged what's implied throughout the rest of the data: "I know that we tell them the number one goal is for you to give feedback to a peer, but really my number one goal is for them to see other people's writing."

The importance of *learning from seeing peers' writing* was demonstrated by the frequency with which students and instructors mentioned it as an anticipated *resolution*. As such, designing opportunities for students to read and reflect on their peers' writing seems to enhance opportunities for *cognitive presence*. However, those opportunities are diminished when the goal isn't articulated to students and/or when the goal is obscured by materials that implicitly or explicitly focus on other goals (such as *improve text*). Because *instructional design* is expressed through created and curated materials, the intended *resolution* will be more easily realized if that goal is articulated consistently to students. Consequently, we recommend focusing on intended *resolutions* throughout the pre-, during-, and post-workshop materials.

Direct Instruction

Across these case studies, we observed *direct instruction* strategies that primarily reinforced our observations of *instructional design*: instructors consistently emphasized *improve text* as a goal of peer review through their interactions with students. *Gain fresh perspective* was often an implied goal in these interactions, and *learn from seeing peers' writing* wasn't a goal we observed instructors foregrounding.

The *direct instruction* we observed varied based on course modality. In Sarah's hybrid course section, *direct instruction* primarily involved verbal interactions. In Quinn's hybrid classroom, *direct instruction* included oral interaction in

the face-to-face peer-review workshop session and text messages in the online session, as well as an email to the class and individual meetings with students. Sofia employed similar strategies in her fully online course section, sending an announcement to the class summarizing her feedback on their drafts and sending individual emails to students. Sofia also attempted to replicate some face-to-face *direct instruction* strategies by sending an LMS announcement and recording videos. One implication of our findings for writing instructors is to consider the different strategies for *direct instruction* in different modalities, including how *direct instruction* can take the form of one-to-one versus one-to-many communications with students.

Sarah

In addition to using pre-designed materials (the Adobe Spark presentation and quiz), Sarah delivered a whole-class lecture that modeled peer review expectations prior to the peer-review workshop day. These in-class presentations constituted Sarah's *direct instruction*, and they involved providing additional resources and instructor feedback to guide student learning. As her student John explained,

> So, she kind of walked us through the first one as far as like what she would kind of look for, and she asked like, you know, how many of you all have done this before? And I feel like at least in my school we did them a lot, so it was pretty easy for me. I don't know what everyone else, what their experiences were. So, she walked us through the first one kind of, and then she gives us this sheet with like questions that she finds are helpful, especially when it comes to editing and reviewing. So, if you follow that it's pretty straightforward.

On the day of their workshop, students reviewed the writing process and the importance of feedback. At the front of the room, Sarah wrote the following on the whiteboard, in a circle with arrows to each word: prewriting, writing, feedback/peer review, revision, editing. She asked for a student volunteer to demonstrate an outline and mind-map on the whiteboards at the back of the room. She also discussed the differences between MLA and APA citation styles and why formatting isn't universal. During the workshop, Sarah walked around the room, asking each group if they had any questions. At times, students would raise their hands as she passed by, and she would speak with their respective groups. For the most part, students worked independently in their peer workshop groups and remained on task throughout the period. To conclude the workshop, Sarah asked the class if they had any questions and reminded them to use their peer review worksheets when revising their essays.

As with her pre-designed course materials, Sarah's *direct instruction* continually reinforced *gain fresh perspective* and *improve text* as goals of peer review. Her modeling of how to construct effective peer comments and her reminder

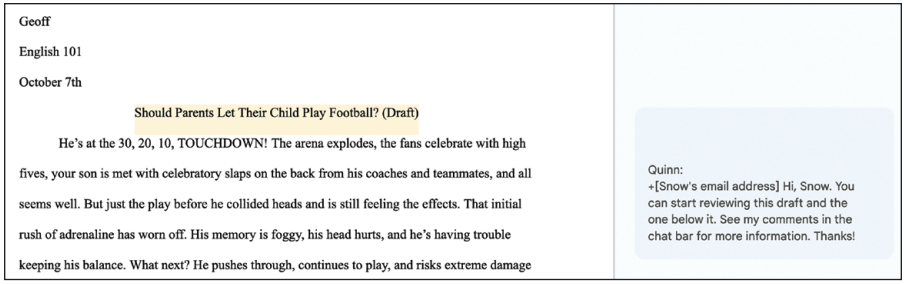
to use the worksheet point to both *gain fresh perspective* and *improve text*. Her framing of the peer-review workshop in a larger discussion of the writing process, where "feedback/peer review" precede revision and editing, especially highlighted the goal of producing a polished final product and perhaps suggested that *gain fresh perspective* leads to an *improve(d) text*. Potentially, Sarah may have drawn her students' attention to the goal of *learn from seeing peers' writing* as she answered individual questions during the workshop, but we didn't observe this.

Quinn

Like Sarah's, Quinn's *direct instruction* primarily took the form of oral instruction during the in-person class meeting on the day of the peer-review workshop. On Tuesday, Quinn explained the plan for the workshop and reviewed the draft workshop guide as well as the assignment instructions for the position paper and the assignment's rubric. Once the class moved into the workshop portion of the session, Quinn's *direct instruction* included answering questions from one student, Snow. In our interview with Geoff, he described Quinn's action of answering questions as the primary value of face-to-face peer review, specifically referencing Snow's conversation with Quinn, saying, "One of my group mates, she asked, like, she had questions to share about, like, how she would like word this or whatever. So, it's a lot easier with the peer review in class to, like, ask the teacher and see if they can direct you." In fact, Quinn's and Snow's voices were the only ones heard in the room throughout the 35 minutes of the in-class session when students were responding to peers' texts in Google Docs.

Geoff also described *direct instruction* in full class discussions, explaining that the students shared their project plans with the entire class but didn't engage in small group discussion with the peer review groups, noting, "We all talked …. We talk about what we're doing, like, our position we're taking, but it was never, like, in the group itself, I guess." Our observation corroborated this point: Quinn facilitated a full-class discussion at the beginning and end of the Tuesday class session. Notably, Catherine and Geoff were two of the three students who verbally participated in the full-class discussion, which suggests that their perceptions of the student-instructor relationship may not be representative of the rest of the class. Quinn confirmed this in an interview, noting, "Everyone in that group, they're just so unique because they communicate with me the most."

For Thursday's synchronous online workshop, Quinn provided minimal *direct instruction* supplementing the written instructions at the top of each Google Docs file. At the beginning of the period in which students were to complete the workshop, Quinn logged into each group's Google Docs file; if she didn't see a student working on the draft, she would leave a comment in the margins. For example, Figure 5.13 illustrates Quinn's comment to Snow, directing her to leave comments for peers.


Geoff

English 101

October 7th

Should Parents Let Their Child Play Football? (Draft)

He's at the 30, 20, 10, TOUCHDOWN! The arena explodes, the fans celebrate with high fives, your son is met with celebratory slaps on the back from his coaches and teammates, and all seems well. But just the play before he collided heads and is still feeling the effects. That initial rush of adrenaline has worn off. His memory is foggy, his head hurts, and he's having trouble keeping his balance. What next? He pushes through, continues to play, and risks extreme damage

Quinn:
+[Snow's email address] Hi, Snow. You can start reviewing this draft and the one below it. See my comments in the chat bar for more information. Thanks!

Figure 5.13. Quinn's Instructor Comment on Student Draft.

When Snow logged on to Google Docs later, she didn't directly interact with Quinn's comment, so it's unclear whether she read it or whether Quinn tagging her email address in the comment was what prompted her to log on.

Finally, Quinn applied several post-workshop *direct instruction* strategies. She reviewed the drafts after the Thursday workshop and created what she called "a composite suggestion list for everybody," which she sent to students via email. She also met with each student individually to discuss their peer feedback and plans for revision before the final essay was due.

Throughout the peer-review workshop, Quinn engaged in several *direct instruction* behaviors that reinforced *gain fresh perspective* and *improve texts* as the goals of peer review. Her post-workshop strategies of reviewing drafts and meeting with students about their intended revisions especially highlight the emphasis she placed on peer review as a catalyst for creating revised, improved products. While she may have talked with students about the goal of *learn from seeing peers' writing* either during her in-class conversations or individual conferences, we didn't see evidence of this goal of peer review in the workshop instruction.

Sofia

Sofia's *direct instruction* about peer review occurred initially via an LMS announcement (see Figure 5.14). After emailing each student with their peer review assignment, Sofia posted an announcement to the LMS reminding students about the peer review assignment, repeating instruction from the weekly schedule on how to write the author's note for their reviewers, and moving the draft deadline by one day because of Thanksgiving break.

The announcement offered recommendations for help students might request in their author's note (help with thesis, identifying off-topic paragraphs, writing strong topic sentences), which reinforced the goal of *improve text*. Sofia also directed students to recall previous peer reviews and what was helpful in those sessions, which might have pointed students towards *fresh perspectives* if they felt such perspectives were beneficial previously.

Week 14 Announcements

Posted on: Monday, November 25, 2019 11:39:13 AM EST

Students,

This is Thanksgiving week; this means that [our] University is open only two days- Monday and Tuesday. This is what you need to do:

Submit your draft for essay 3 **WITH AN AUTHOR'S NOTE**. This is a paragraph or bulleted list in which you first explain to your peer reviewer where you are in the drafting process (I just started or I have already revised a couple of times, etc.), and then **you ask your reviewer to answer specific concerns about your paper**. For example, you may choose to ask for help with the thesis or with identifying the paragraphs that are off topic or lack a strong topic sentence. To come up with the list of concerns, think back [to] the previous peer reviews. What seemed to be important for them? What was most helpful in your peer's review? Use the previous peer reviews to guide you, but, ultimately, you know best what your essay needs!

Due date: Tuesday, 11/26, but I can wait until Wednesday at midnight for your draft and author's note.

We also have exercise 9 on the schedule, but you DO NOT HAVE TO DO IT. I will give you the points for this exercise shortly. Focus on drafting essay 3 instead and enjoy Thanksgiving.

Figure 5.14. Sofia's Class LMS Announcement.

In addition to the LMS Announcement, earlier in the semester Sofia created and narrated electronic slides on different elements of writing, which were intended to inform the students' peer reviews; however, she expressed some ambivalence about the usefulness of the slides, noting that "I have PowerPoints about how it's important to have a central idea in the paper and what's a good central idea and what's a bad central idea. I don't know if they watch those narrated PowerPoints." Sofia also expressed feeling less confident about her ability to prepare her online students for peer review than her face-to-face students, saying, "I do it a lot in the classroom. In the classroom, we talk a lot about our papers, and we do that at the beginning, when I give them the assignment, and then throughout. But with the online format, it is really hard." Sofia's comment suggests that her narrated slides were intended to replicate oral *direct instruction* that she would provide in a face-to-face class, but she wasn't confident that the slides served that purpose online.

Sofia's final form of *direct instruction* was email messages to individual students. She didn't leave comments on the peer review feedback itself but simply acknowledged that she received each review. In an interview, Sofia expressed the idea that criticism of the peer review feedback may discourage students from providing peer comments in the future. Sofia observed that she would comment on the quality of the peer review "only when they do a terrible, terrible job, and

there is a reason behind that. I know that some of them feel that they aren't good enough of a writer to give feedback, and me yelling at them for providing too little feedback isn't going to help them with a future peer review."

Notwithstanding Sofia's policy of not commenting on the quality of peer review feedback, her student Courtney mentioned appreciating some positive direct feedback she received from Sofia on the peer review for a previous assignment: "Well, we actually did peer review with my second essay also, and the person I did it for, I think he could use a little extra help, so I went really into depth with mine, with my peer review, and my professor even emailed me back, and it was like, she thanked me for how much I kind of did for it, and I think he benefited from that." Courtney observed that Sofia also made a personal connection in that email message; knowing that Courtney worked in the Learning Center the previous year, Sofia encouraged her to apply to be a writing tutor. "She told me I would need to take the [second writing] class first, but she thought that I had the right skill set, she said, to be a tutor for writing," Courtney reflected. Like Quinn, then, Sofia leveraged her *direct instruction* to facilitate student-teacher interaction.

This emphasis on student-teacher interaction was further reinforced because Sofia provided feedback on each student's draft while students were undertaking peer review. In an interview, Sofia noted that she had time to point out only a few things each student should do to improve the text, and that peer review was useful in providing feedback beyond what she had time to provide. Nevertheless, her feedback on student drafts contained at least a page of suggestions for student revision. After commenting on student drafts, Sofia posted an announcement to the class that detailed the primary problems she encountered in the drafts and how to address those. As with Sarah and Quinn, Sofia may have talked with her students about the goal of *learn from seeing peers' writing*, but we didn't see evidence of this goal, and the addition of instructor feedback simultaneously with peer feedback might have overshadowed that goal.

Discourse Facilitation

Our analyses of *instructional design* and *direct instruction* focused on the extent to which instructors' intentions for peer review were observable in their course materials (*instructional design*) and in the ways they guided their students to interact with those materials and/or participate in the activity they designed (*direct instruction*). In both analyses, we focused on the relationship between *teaching presence* and *cognitive presence*. In our analysis of the final component of *teaching presence—discourse facilitation*—we focus on the relationship between *teaching presence* and *social presence*. As described in Chapter 4, we believe current conceptions of *social presence* are undertheorized, and we particularly call for future research on "social comfort" and "attitudes." We also believe there is value in differentiating between *social perceptions* and *social learning*, but we call

for more research to better define the relationship between those two. In this chapter, we focus our attention on the aspect of *social presence* that we learned the most about through our interviews with students: *social perceptions*. More specifically, we examine the extent to which our case study instructors' *discourse facilitation* led students to develop *social perceptions* of one another.

In each case, we found evidence of students interacting with one another, although the interaction was more substantive in some course sections than in others. The students in Sarah's hybrid course section clearly developed *social perceptions* of one another, which was largely a result of the synchronous and face-to-face *discourse facilitation* involved. Similarly, *social perceptions* were facilitated by Sofia's asynchronous workshop design that included author's notes and emails. In contrast, the students in Quinn's hybrid course section experienced the least *discourse facilitation*—they created comments and read their peers' drafts, but there was little evidence in our observations of the students interacting enough to develop *social perceptions* of one another. While we found examples of successful *discourse facilitation* in both Sarah's hybrid course section and Sofia's online course section, we were surprised at the lack of *discourse facilitation* in Quinn's hybrid course section, given that the modality included two synchronous workshops. An important takeaway from our findings for writing instructors is that the success of *discourse facilitation* isn't necessarily related to course modality.

Sarah

Sarah's workshop design invited students to develop *social perceptions* of their classmates primarily through being co-present with one another in the physical classroom. However, our observations indicated that, while these *social perceptions* may have facilitated discourse for some peer reviewers, this wasn't the case for all students.

Prior to the workshop, Sarah asked students to reflect in a discussion forum on readings about peer review and their prior experiences with peer review. This activity may have been intended to facilitate discourse; however, we observed that students tended to post the one required post and the one-to-two required responses but didn't engage much beyond that. Furthermore, none of her students who participated in our study, neither John, Jane, nor Jake, mentioned the discussion forum during their interviews; instead, they focused on their face-to-face interactions with peers when asked if they engaged in *discourse facilitation*.

Sarah's students brought paper copies of their drafts or electronic copies (i.e., their laptops) and chose their peer workshop groups on the day of the workshop. Their classroom contained three rows of long tables, and students tended to choose whoever sat next to them as their group members. During the observation day, Jake, Jane, and John volunteered to participate in interviews following the workshop, so they formed a peer workshop group in order to be observed more closely. This was the first time the three students had worked

together as a peer workshop group, but it was clear that they had previously formed *social perceptions* of one another as a result of regularly being co-present in the classroom.

The workshop began with the entire class working silently, reading their peers' essays and writing marginal comments and/or filling out the worksheet Sarah had provided before engaging in a discussion. Some groups chose to complete the worksheet while reading and others finished reading before completing the worksheet, but all groups seemed to focus on filling out some aspect of the worksheet before beginning their group discussions. Once group members finished reading their peers' essays and filling out the worksheet, they discussed their feedback aloud until class ended, and Sarah reminded them to use their peers' feedback when revising their drafts.

In this workshop design, the peer review worksheet was a tool intended to facilitate discourse by guiding the oral discussion. However, Jake felt that the worksheet was more of a hindrance than a help to *discourse facilitation*:

> There's one thing I think is kind of a pro and a con for this particular workshop is having a structured set of questions to answer in a peer review. I think it's helpful for people who don't know how to give feedback, but it kind of limits your discussion if you have other things that stood out to you that aren't related directly to the worksheet that you're given to follow.

When asked if there might be a way to balance a guide with organic conversation, Jake responded that filling out his own worksheet based on the group discussion of his essay might be more useful, adding, "Then you're getting the meat of what your peer is actually trying to say rather than whatever they can formulate in one sentence."

In contrast, John appreciated that the worksheet gave him a sense of Sarah's expectations. During class, we observed him using the worksheet as a guide for the verbal feedback he provided to Jake. In response to a worksheet question that asked, "How concise are the author's sentences? Find specific examples in which subjects are clear, verbs express action, and the writer avoids empty words," John wrote out a sentence from Jake's draft, and then added a note that said, "concise—but maybe a bit too concise." Then, during the group discussion, he said:

> I feel like you did a good job because the medical field is just straight to the point and I feel like you did a good job of that. There are definitely some words I just don't understand like *transcortical* but that's just because of your targeted audience which I understand. My main thing is like it's really, really concise so maybe just a little bit extended in some areas.

John began his feedback by focusing on Jake's language choices, which is what the worksheet asked him to do, but then he moved on to comment about the

overall concision of the draft. In this way, the worksheet seems to have achieved Sarah's purpose of prompting and guiding discussion.

When we asked Sarah about the worksheet, she explained that it wasn't required but was intended to help generate conversation, saying, "Sometimes I just give them the worksheet and they just don't even touch it. So, really, it's up to them. I just want to make sure they're talking." The students' verbal exchange and physical co-presence definitely required all students to interact and, through that interaction, develop s*ocial perceptions* that seemed to aid the *discourse facilitation*. In this way, Sarah achieved her goal to "make sure they're talking." Her use of a worksheet to guide interaction seems to have benefited some students but may have been a hindrance to others, which echoes our earlier findings about the importance of explicitly connecting instructional materials to learning goals.

Quinn

In contrast to the oral conversation in Sarah's classroom, Quinn's peer-review workshop involved no talking, despite its synchronous and in-person design. Furthermore, in interviews, Quinn's students shared that they didn't form *social perceptions* of their peer review group members.

During the Tuesday workshop, the students were physically co-present in the classroom. For the first half of the class session, Quinn gave a mini-lecture on writing effective introductions and introduced students to the plan for the workshop. The last 35 minutes of the class session involved the students copying a portion of their draft into the group Google Docs file and then individually creating marginal comments for their peers. During this time, the students sat in rows facing the front of the room and accessed the Google Docs file from their individual devices. They didn't sit near their peer reviewers, nor did they speak to them during the session; as Catherine explained, "We're not talking while we're doing it, so we might as well be in different rooms doing it anyways."

Thursday's online workshop was designed to be synchronous. Catherine and Geoff participated as expected, logging onto the Google Docs file at approximately 12:45 p.m., 15 minutes after the official class start time. Catherine was in the Google Docs file for 11 minutes, and Geoff was in the document for 26 minutes; he then left and re-entered the document six minutes later but didn't make any additional textual changes. Catherine and Geoff didn't interact in the chat or respond to one another's marginal comments. Snow logged on at 1:45 p.m., just as the official class time ended, and completed her feedback asynchronously after both Catherine and Geoff had left the document. In her interview, Snow pointed to this as an advantage of virtual workshops, saying, "You can just join the Google document maybe 15 minutes later if you have something to do." Quinn confirmed that this flexibility was intentional, noting, "I don't make them … stay all together viewing the document. When they finish the edits … if they don't have any more questions, then they can exit the document." In this way, while the activity was designed to allow for synchronicity, it supported more asynchronous interaction.

Despite being designed to support synchronous interaction, students didn't engage in back-and-forth conversation in either of the workshop sessions. In an interview, Quinn noted that synchronous interaction was possible through the Google Docs chat and tagging tools, saying, "So if someone asks a question in the comments saying, 'Add more evidence,' then someone could reply and say @ sign and the user's name, and 'What do you mean by this?' and then they'll receive some kind of notification, and then they can respond to it." However, the students in this study didn't interact in this way. As described in the Direct Instruction section of this chapter, we did see Quinn attempt to communicate with Snow through the tagging tool, but we have no evidence of Snow responding to that communication.

If we define *social presence* as "feeling real" and attempt to measure it via evidence of *social perceptions* that students develop when their instructors *facilitate discourse*, then we might conclude that we didn't find evidence of *social presence* creating opportunities for *cognitive presence* in this case study. However, these student participants reported positive experiences with peer review and, as illustrated in Chapter 3, made revisions that correlated with peer feedback. Catherine explained, "I like the workshop just because I like to see what other people think about my writing …. It's just a nice way to step back. And then it's also cool to see what other people's topics are." Geoff similarly noted, "You can't really read your own …. I mean if I write something, I think, like, it's good. But if someone else were to read it, they'd obviously find, like, certain things that you wouldn't." Or, as Snow put it, "I like the grammar comments because it's a—really helps me a lot." She further explained, "After I read their essay, I know the general structure of the essay. … So, it can help me improve my essay because they … grew up here and … they are more familiar with such format." These students interacted with each other through the process of reading and responding to drafts, and in so doing they developed some sort of *social perceptions*, at least of their peers' writing projects (which might suggest they viewed each other "as students" instead of "as people," as argued in Chapter 4). However, we didn't see the level of *discourse facilitation* that the CoI framework suggests is necessary for knowledge co-construction. The fact that we did still see some *cognitive presence* resulting from these students' interactions with peer feedback reinforces our call for a more robust theorization of *social presence*.

Sofia

Sofia's primary strategy for *discourse facilitation* was through the author's note. In the Week 14 module, Sofia defined the author's note as "a paragraph or bullet list in which you first explain to your peer reviewer where you are in the drafting process … and then you ask your reviewer to answer specific concerns about your paper." Her instructions further directed writers to create a list of concerns for the peer reviewer to address. To construct that list, Sofia instructed students to "think back on the previous peer reviews. What seemed to be important for

them? What was most helpful in your peer's review?" Sofia's effort to facilitate discourse relied on students to draw on what they had learned from previous peer reviews to construct an individualized request for feedback. Furthermore, the author's note overtly invited students to form *social perceptions* of one another, because they began the peer review process by considering the kinds of feedback the author desired. The author's note was something that Sofia's student Courtney found useful, as she pointed out that "on the last essay, she wanted us to have a little note somewhere about what we wanted to receive within the feedback. So, I really liked that, too."

Sofia's use of email as a delivery tool further encouraged the development of *social perceptions* because students were emailing their feedback directly to one another (instead of posting a reply to the forum in the LMS where they uploaded their drafts). Sofia acknowledged that she had chosen a unique way to facilitate peer review discourse, even though organizing the pairs and sending the email messages may have taken more work on her part than using another method, such as the peer review function in her LMS. She commented, for example, "I don't like it because it takes me forever to do it, and I have to be organized, and as you may have noticed, I'm not a very organized person in general, so I am forgetful and all that. So, it takes a lot of sitting down with no distractions and really paying attention on my part." This process took more effort than a more mechanized process would have, and she noted, "To put them together, to make sure that I've attached everything, and I have the instructions clear, and I changed—because I use the same instructions for each email, but you have to change the names and—so, make sure I attach the right paper." While Sofia's students didn't comment either positively or negatively about the strategy of using email communication to facilitate peer review, one, Emily, did note that email communication between peer review groups went smoothly, saying, "It was really good. It's really easy to do it with other students because usually they're really open. They email you really quick if there is a problem, and they're really open to critique." Emily suggested that the email exchange facilitated *social perceptions*—instead of posting comments in a Google Docs file or a discussion forum, students attached their comments to an email and presumably included a brief message to the peer which, as Emily observed, created an opportunity for asking questions if there was a problem. As such, we can conclude that this asynchronous workshop design created ample opportunity for students to develop *social perceptions* and engage in discourse.

Conclusions and Recommendations

In this chapter, we sought to investigate *teaching presence* by examining the ways in which *instructional design*, *direct instruction*, and *discourse facilitation* were evident within peer review, and the ways those functions of *teaching presence* facilitated the *cognitive* and *social presence* described in previous chapters. By

offering this analysis, we aimed to demonstrate how to use the CoI framework to assess the extent to which course designs can create opportunities for community inquiry.

As we analyzed the data for this project, we initially questioned whether peer review would be more successful when designed to include both synchronous and asynchronous interaction. However, our data repeatedly suggested that the effectiveness of a particular mode of interaction depended upon each instructor's pedagogical goals and the ways they leveraged course modality and available tools to achieve those goals.

Furthermore, there isn't one peer-review workshop design that we can position as "best." There were successes and challenges in all of the case studies we've presented in this chapter (and in all of the workshops we observed). Because we can't recommend one specific design strategy or mode as the "best" way to design or facilitate peer review, we advocate for designing peer-review workshops according to the CoI framework, which invites writing instructors to focus their activity design on three elements: *instructional design*, *direct instruction*, and *discourse facilitation*.

Based on our analysis of *teaching presence*, we offer three recommendations.

Recommendation 1: Explicitly Articulate Learning Goals in Student-Facing Materials

In this study, we focused on one particular aspect of *instructional design*: the ways instructors create materials that establish the goals of peer review. This element of *teaching presence* is modality-agnostic, in that, regardless of course modality, all instructors engage in *instructional design* as they establish goals and create materials that aim to guide their students towards those goals. For the instructors in this study, the primary goals of peer review were *gain fresh perspective*, *improve text*, and *learn from seeing peers' writing*. In all three case studies, we observed that most of the instructor-designed materials guided students to *gain fresh perspective*. In this way, *teaching presence* successfully created an environment where an intended goal of *cognitive presence* could be achieved.

Even though instructors' interviews didn't emphasize *improve text*, many of their materials did, demonstrating a disconnect between instructors' stated goals in the interviews and the materials that conveyed those goals to students. We suspect this disconnect may be related to writing studies scholars' critiques of *improve text* as a goal of peer review. Jackson (2023), for example, has built on Timothy Oleksiak's (2020) work to position "the learning that occurs for the peer reviewer in providing comments" (p. 206) as more valuable than what Oleksiak called the "improvement imperative." Too often, Jackson (2023) argued, students "see peer review merely as an exercise in proofreading and fail to grasp what they can learn when working collaboratively" (p. 208). The real value of peer review, according to Jackson (2023), is "not in its outcomes, i.e., the comments

to improve a peer's essay, but what students learn by engaging in the process of peer review itself" (p. 209). While acknowledging these critiques, we also recognize that some students learn from what sometimes is reduced to proofreading. For example, discussing tutoring ESL students, Sharon A. Myers (2003) pushed against categorizing "local" and "global" errors—what we've discussed as *meaning-level* and *surface-level concerns*—and, instead, asked instructors to "relinquish the attitude that giving second-language students the language they need is 'unethical' or 'immoral'" (p. 66). Likewise, Lori Salem (2016) emphasized that writing centers should stop focusing on only higher-order concerns and not lower-order concerns (what we've called *meaning-level concerns* and *surface-level concerns*) in all cases, if a student needs more help (p. 163). While our findings from Chapter 3 suggest that *meaning-level feedback* is more likely to initiate the community-based inquiry that leads to knowledge co-construction, we are cautious to conclude that writing instructors and tutors should avoid *surface-level feedback* altogether. Instead, we recommend instructors talk with their students about different types of feedback as well as the improvement imperative. We also recommend that instructors design peer-review workshops that have the potential to facilitate knowledge co-construction and that they attend to how they communicate that goal to students. Within and beyond peer-review workshops, we recommend instructors review their student-facing materials for instances when they may be inadvertently advancing the improvement imperative or failing to account for language diversity.

Like *improve text*, *learn from seeing peers' writing* was an implicit purpose for both instructors and students that nevertheless wasn't articulated clearly in any materials or instructions. We suspect that this is due to the nature of peer review, which necessarily requires students to read one another's writing. Because seeing their peers' writing is fundamental to the activity, instructors may not have seen a need to articulate explicitly the ways that reading peers' writing and providing feedback (not just receiving feedback) facilitates *social* and *cognitive presence*. We advocate for instructors to articulate as much as possible their *instructional design* intentions and the specific goals for each aspect of the peer review process. We also recommend instructors consistently feature learning goals throughout their materials.

Instructors can also make peer review learning goals clear through their *direct instruction*, which occurs when instructors guide their students to interact with the materials and activities they have designed. Throughout the study, we observed instances in which instructor and student expectations diverged. Sarah, for example, created a worksheet for her students and described it as optional during her interview without articulating that point to her students. She also walked around the classroom, looked at the worksheet, and included a checkmark at the bottom, which led students to interpret the worksheet as a part of an assignment to complete. In another example, Quinn provided a detailed guide for her students, yet her students Catherine and Geoff both commented that they didn't know how to put it

to use. Echoing Peter Shea (2024), our recommendation to writing instructors and tutors, then, is to carefully examine not only the materials they create, but also the way they interact with those materials during *direct instruction*.

We also recognize the immense cognitive load required to design a peer workshop with comprehensive materials. As instructors, we are well aware that activities take time and multiple semesters to hone. Our goal here is to encourage instructors to critically reflect on the ways their various methods of *instructional design* and *direct instruction* align with one another to support specific and narrowly defined learning objectives (i.e., *resolution*) for the workshop.

Recommendation 2: Deliberately and Intentionally Facilitate Discourse

Discourse facilitation is key to peer review—at the most basic level, instructors ask students to read and respond, hallmarks of discourse, to each other's work—which makes the CoI framework particularly appropriate as a heuristic for peer review and other collaborative learning activities that require knowledge co-construction. Consequently, in addition to the importance of intentionally and transparently articulating the goals of peer review to students, our findings illustrate that the importance of *discourse facilitation* cannot be overstated. Our finding aligns with Brunk-Chavez and Miller's (2007) urging for instructors to purposefully design a space for genuinely collaborative activities and Stewart's (2019) assertion that *teaching presence* is vital for establishing a relationship between *social presence* and *cognitive presence* in the writing classroom. Previous research has discussed opportunities for *discourse facilitation* in relation to modality. Breuch (2005), for example, pointed to asynchronous peer review as an option that affords students more time for providing feedback, allows introverted students an environment where they may feel more comfortable communicating, and encourages directive feedback. Our study moves away from modality-specific recommendations, instead recommending that *discourse facilitation* should be a central concern for instructors designing peer-review workshops—and other collaborative activities—that aim to function as communities of inquiry. We also recommend more research on the ways that *discourse facilitation* leads to *social presence*, including a conversation about the relationship between *social perceptions* and *social learning* and the impact of other elements such as "social comfort" and "attitudes."

Recommendation 3: Engage With Students via Both One-to-One and One-to-Many Communication

Our final recommendation for instructors and tutors is to use *direct instruction* and *discourse facilitation* strategies that include both one-to-one communication (e.g., individual emails and instructor feedback) and one-to-many communication

(e.g., whole class videos or announcements). The only instructor of a fully online course section in our three case studies, Sofia, described her struggle to replicate face-to-face strategies for one-to-many communication through narrated PowerPoint slides, worrying that students didn't actually watch the slides. We have anecdotally heard similar stories from many instructors of online course sections, some of whom concluded that one-to-many communication is just easier in the face-to-face classroom where the instructor is literally in the front of the room. While this may be true, one-to-many communication is important in online courses that aim to facilitate community inquiry because it can help students perceive themselves as participating in a cohort, as opposed to taking an independent study course. While Sofia expressed concern about the effectiveness of the PowerPoint slides, she also demonstrated an effective one-to-group communication through her emails with the peer review groups, and she demonstrated one-to-class communication through her LMS announcements. Sarah similarly demonstrated one-to-many online communication through the Adobe Spark page she used that introduced students to the peer-review workshop, and Quinn did so through her "composite suggestion list" that she emailed to students after the workshop was complete. Our recommendation to writing instructors is to actively and intentionally integrate both one-to-one and one-to-many communication strategies into their *direct instruction* and *discourse facilitation*.

Chapter 6. Conclusion

Throughout this book, we've applied the CoI framework—a social constructivist model of online learning that's comprised of *cognitive presence, social presence*, and *teaching presence*—to analyze peer-review workshops in hybrid and online FYW courses. Our findings illustrate that the framework is an appropriate and useful heuristic for designing and facilitating the kinds of collaborative work necessary for this foundational FYW activity. Our findings also illustrate that the potential goals and benefits of peer review are as myriad as the ways to design and facilitate it effectively. Consequently, instead of making specific peer review design recommendations, we advocate for all instructors, regardless of course modality, to use what we are calling the CoI Framework in Writing Studies as a heuristic for instructional design. As illustrated in our study, the components that contribute to the success of a peer-review workshop (and, we would argue, to any collaborative activity) include intentional and transparent design (*teaching presence*) that invites students to interact with the course content and with their peers (*social presence*) in order to co-construct knowledge (*cognitive presence*).

Teaching presence is crucial for a community of inquiry to be possible because it gives instructors a starting point for navigating their unique contexts to design hybrid, online, and face-to-face writing courses that have the potential to facilitate *social presence* and *cognitive presence*. Our findings underscore that the three distinct elements of *teaching presence—instructional design*, *direct instruction*, and *discourse facilitation*—are particularly helpful when navigating the complex and multidimensional process of course design.

Social presence is perhaps the most important component in a community of inquiry because it facilitates the student-student interaction that leads to community and collaborative learning. Our project differentiates between *social perceptions* and *social learning*, and it calls for more research on other aspects of *social presence*, including social "comfort" and student "attitudes" about hybrid/online learning.

Cognitive presence is the end goal of a community of inquiry: it is the knowledge co-construction that leads to learning. CoI scholars (e.g., Garrison et al, 1999) have described this knowledge co-construction in terms of Dewey's (1910) four phases of practical inquiry: *triggering event*, *exploration*, *integration*, and *resolution*. The observations and analyses from our study suggest that *cognitive presence* can be attained via peer review activities and feedback that incite triggering events, leading to exploration that creates opportunities for *integration* and *resolution* during revision. However, seeking observable evidence of student learning (such as seeing that revisions were made to a draft and that those revisions correlate to feedback received) doesn't provide the full picture—we also

need to understand the *social presence* that students did or did not experience. This includes understanding the relationship between *social perceptions* and *social learning* and the impact of other elements, like "comfort" and "attitudes," on knowledge co-construction. This more nuanced understanding of collaborative learning will help instructors make instructional design choices and develop direct instruction strategies that more consistently facilitate discourse.

Our CoI Framework in Writing Studies, which is included in Chapter 1 of this book, is offered again in Figure 6.1. We hope FYW instructors will use this heuristic to inform their overall course designs as well as the design of specific collaborative activities like peer review. We hope writing program administrators and writing center professionals will use the heuristic to design teacher training and professional development opportunities for faculty and graduate students. Administrators might also employ the heuristic to design resources that support shared curricula in FYW. Finally, we hope OWI researchers will investigate the efficacy of the CoI Framework in Writing Studies. As we have stated throughout, there is a particular need for additional research on social presence.

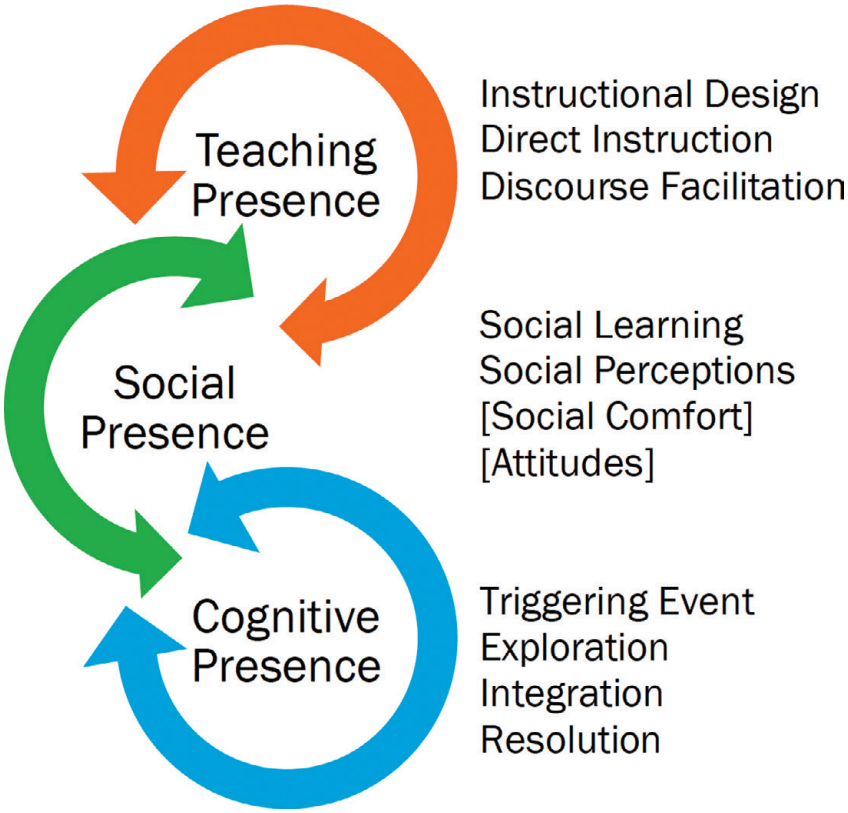


Figure 6.1. CoI Framework in Writing Studies. Repeated from Figure 1.2.

In addition to our heuristic, we offer the following summaries of what each of the three presences looks like in writing studies and how writing instructors, tutors, and researchers might approach the three presences in their writing classrooms, writing centers, and/or research study designs.

Cognitive Presence

Our study of *cognitive presence* confirmed the potential for peer-to-peer learning and knowledge co-construction because all students *did* revise their essays in response to peer feedback. However, additional *triggering events* (e.g., instructor feedback) could have initiated some of those *resolutions*, and our findings reinforce that learning is nuanced and that *cognitive presence* must be understood in context with *teaching presence* and *social presence*. Consequently, peer-review workshops must be intentionally designed to include *triggering events* (e.g., prompts, questions, opportunities for seeing classmates' writing, etc.), and instructors must clearly define and articulate the goals of peer-review workshops so that students understand the purpose of each part of the activity and the workshop overall. This overt *instructional design* will create *triggering events* that have more potential to encourage the collaboration that leads to *exploration* and *integration*.

While our study, like so many others, demonstrates how difficult it is to measure learning in college writing classrooms (and elsewhere), Dewey's (1910) four phases of practical inquiry provide a useful vocabulary for differentiating between aspects of the learning process, which is useful during course design. The version of *cognitive presence* that we recommend for writing studies additionally emphasizes identifying key goals or purposes of the collaborative activity. The work of identifying goals should occur *before* instructors begin to design materials and activities that guide students through the phases of practical inquiry. While the students and instructors in our study named three goals for peer review (i.e., *learn from seeing peers' writing*, *improve text*, and *gain fresh perspective*), those goals will be different for students and instructors/tutors in other contexts and activities.

Social Presence

Our conceptualization of *social presence* for writing studies varies from other CoI research because we differentiate between "social perceptions" and "social learning." One contribution of this study is to question the relationship between those two aspects of *social presence*. Through interviews, students self-reported that they experienced *social learning* and believed that having *social perceptions* of classmates facilitated a positive experience in FYW. However, they also stated that they didn't want or need to develop a "relationship" with their peers. This pushes against an assumption in most CoI scholarship that *social perceptions* (i.e.,

feeling real, developing a sense of trust and belonging) are a prerequisite to *social learning*. We encourage writing instructors and tutors to similarly question what kinds of interactions and relationships are assumed to be necessary or expected in order to facilitate collaborative learning. We also encourage OWI researchers to either define what is meant by the term "relationships" or work with students during a validation study to develop survey and/or interview questions related to this concept.

We further encourage writing instructors, tutors, and researchers to critically examine the role of social "comfort" and of student "attitudes" in establishing and maintaining social presence. The interviews and case studies we have presented in this book demonstrate that social presence is much more complicated than "feeling real" and that there isn't one "right" way to be present online. Furthermore, *social presence* isn't a zero-sum game. Students in our study simultaneously experienced positive and negative *social perceptions* that both supported and hindered *social learning*. A clear direction for future research is to consider *social presence* in light of the conversations in writing studies related to racial, linguistic, and gender identity, as well as (dis)ability, and other forms of intersectionality (e.g., Inoue, 2014; Martinez, 2020; Matsuda, 2006; West-Puckett et al., 2023).

Teaching Presence

Just as there isn't one right or best way for students to be present online, the case studies we have presented in this book reveal that there isn't one right or best way for instructors to create meaningful peer-review workshops (or other collaborative activities). Many teacher-scholars in writing studies have offered specific examples of how to effectively facilitate these kinds of activities (e.g., Das & Faris, 2024), and we do the same by sharing the strategies our instructor participants employed. However, the nature of teaching means that instructors and tutors must consider how to adapt recommendations to their students and contexts (Cicchino & Hicks, 2024). This is why we favor the CoI framework as a heuristic that can help instructors, tutors, and researchers think through the design process.

Unlike most CoI scholarship that focuses on online learning (which typically means asynchronous online learning), we argue that the CoI framework is applicable to any course modality. Our hope is to shift the ways those in the field of writing studies discuss modality. It isn't the case that peer review (or any activity) can *only* work online or face-to-face or synchronously or asynchronously. Given thoughtful and intentional course design (and given appropriate resources, which we fully realize institutions don't always provide), peer review and other collaborative learning activities can work in any of those environments. The task for instructors and tutors is to create an *instructional design* plan that offers both *direct instruction* and *discourse facilitation*, drawing on the modality best suited for achieving the instructional goals. When the goal is creating and maintaining

a community of inquiry, we encourage instructors and researchers to pay particularly close attention to *discourse facilitation*.

Our CoI Framework in Writing Studies presents the three presences as a sequence, where *teaching presence* creates opportunities for the types of *social presence* that have the potential to facilitate *cognitive presence*. However, we want to close this book by reiterating that teaching isn't a linear activity, hence the multidirectional arrows in Figure 6.1. As we show in Chapter 5, *teaching presence* can be used to analyze past practices, question how existing designs do or do not create spaces for *social* and *cognitive presence*, and examine the ways that instructional materials reinforce or contradict the intended goals for a learning activity. This work can happen before the start of a semester and can also happen mid-semester as instructors pivot in response to student feedback. We recommend creating a timeline that includes *instructional design* (which often happens before the course begins), *direct instruction* (which occurs as instructors and tutors guide students to interact with materials and activities) and *discourse facilitation* (which instructors employ to guide student interaction).

In Sum

The case studies in this book illuminate that all aspects of the CoI framework necessitate instructors communicating with students about their pedagogy—from learning goals to instructional design to collaborative activities. As we hope we've demonstrated, the CoI Framework in Writing Studies is a useful heuristic that applies directly to peer-review workshops and can apply to many other collaborative writing activities. We hope that instructors, tutors, writing program administrators, and other writing studies researchers will find the framework useful for designing, instructing, facilitating, administrating, and/or researching additional aspects of writing pedagogy in all modalities. We recognize that our work is only the beginning of what might be possible for the CoI Framework in Writing Studies and look forward to future extensions of this work.

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Appendix A. Instructor Invitation Email

Subject: Invitation to Participate in Study of Peer Review in Hybrid/Online Writing Courses

Dear Instructor,

My name is _____, and I am an _____ at _____. I'm conducting IRB-approved research on peer review in hybrid and online writing courses. My research team and I are seeking 8-10 instructors from four different institutions to participate and would like to invite you to talk with us about your perspective on peer review in your online/hybrid course.

This study is cross-institutional—I'm working with three other researchers at institutions in [insert institutions A, B, C, or D], including _____ from [institutions A, B, C, and D]. Our aim to learn about hybrid and online students' experiences with peer review. We conducted a more general study of hybrid and online writing instruction in 2017-2018; in response to that data, we're now planning to observe how hybrid versus online students are interacting with and learning from one another during peer review.

We would also like to understand instructors' design choices, so we're hoping you will be willing to: (a) allow us to observe one peer-review workshop or activity and invite your students to participate in interviews, (b) share with us instructional materials related to that peer-review workshop or activity, and (c) participate in two interviews, one before and one after the peer review observation. We realize that this is a lot to ask, so, as a thank you, we are offering a **$100 Amazon gift card to each instructor participant.**

Participation in this study involves:

- Completing this **consent form and eligibility survey**: {insert link}
- Participating in **two 45-60-minute interviews**. The first interview will cover your general approach to peer review; in the second one, I will ask you about the peer-review workshop that was observed. Our goal is to understand the extent to which students are learning as a result of interacting with peers, and the ways in which that learning is impacted by delivery format and instructional design.
- Allowing me to **observe a peer-review workshop/activity** and helping to facilitate this by **posting a link to the study invitation in your course website** and **providing me with a list of your peer review groups**. Face-to-face sessions will be physically observed and audio recorded; synchronous online sessions will be physically observed and recorded via screen capture; observation of asynchronous courses involves allowing us to view consenting students' interactions during peer review. Only students who consent to the study will be observed and interviewed, and we will select

participants by cross referencing your list of peer review groups with the consent forms we receive from students.
- Sharing **instructional materials** (e.g., assignment instructions; peer review rubrics)

In addition to the $100 gift card, I can write an aggregate and deidentified report to share what I learn from your students' participation, upon request.

I would very much appreciate your assistance with this research! For more details, and to indicate your interest in participating, please complete this consent form and eligibility survey: {insert link}

If you have any questions, contact me at _____.

Thank you,

_____

This project has been approved by the [Institution Name Redacted] Institutional Review Boards for the Protection of Human Subjects (phone [Redacted]).

Appendix B. Instructor Consent Form and Intake Survey

Instructor Consent Form (to be created in Qualtrics at each institution)

Page 1

We are seeking 8-10 instructors from four different institutions to participate in a research study and would like to invite you to talk with us about your perspective on peer review in your online/hybrid course. This study is cross-institutional—including institutions in [four different states across the United States]—and aims to learn about hybrid and online students' experiences with peer review. We conducted a more general study of hybrid and online writing instruction in 2017-2018; in response to that data, we're now planning to observe how hybrid versus online students are interacting with and learning from one another during peer review.

We would also like to understand instructors' design choices, so we're hoping you will be willing to: (a) allow us to observe one peer-review workshop or activity and invite your students to participate in interviews, (b) share with us instructional materials related to that peer-review workshop or activity, and (c) participate in two interviews, one before and one after the peer review observation. We realize that this is a lot to ask, so, as a thank you, we are offering a **$100 Amazon gift card to each instructor participant.**

Participation in this study involves:

- Participating in **two 45–60-minute interviews**. The first interview will cover your general approach to peer review; in the second one, I will ask you about the peer-review workshop that was observed. Audio recordings will be stored on a Google Drive folder only accessible to the research team; data from interviews will only be reported on as written transcriptions with pseudonyms.
- Allowing us to **observe a peer-review workshop/activity** and helping to facilitate this by **posting a link to the study invitation in your course website** and **providing us with a list of your peer review groups**. Face-to-face sessions will be physically observed and audio recorded; synchronous online sessions will be physically observed and recorded via screen capture; observation of asynchronous courses involves allowing us to view consenting students' interactions during peer review. Only students who consent to the study will be observed and interviewed, and we will select participants by cross referencing your list of peer review groups with the consent forms we receive from students. There is a chance that you, too, will be recorded, if you interact with the peer review group I am observing. All recordings will be stored on a Google Drive folder accessible only

to the research team. Your likeness and/or voice may be distributed in conference presentations, publications, or reports, but only if you give us permission to do so (see below); otherwise, data will be reported on as written transcriptions with pseudonyms.

- Sharing instructional materials (e.g., assignment instructions; peer review rubrics). These materials will be stored in a Google Drive folder accessible only to the research team. If we refer to or quote from the materials in reports, we remove any identifying information[5].

Participation (or non-participation) in the research is completely voluntary, and there are very minimal risks. To protect our participants' confidentiality, we are taking a few steps. First, a researcher who is not part of your institution (me) will conduct all [institution A/B/C/D] interviews and observations. The full research team, including your colleague, will not have access to raw data until after the semester has concluded (I will store the data on my hard-drive until that time). Identifying details will be removed from interview transcripts and observation reports. All written documentation from the study (including publications and conference presentations) will use pseudonyms and will not include identifying information. If you are teaching a synchronous session that we video record, then there is a chance that you could be recognized as a research participant, but this risk is no more than you might experience in everyday life, and we will only use your likeness if you give permission. You can choose to discontinue your participation at any time by simply emailing me and requesting to be removed from the study.

This project has been approved by the [Institutional Review Boards for the Protection of Human Subjects] (phone XXX.XXX.XXXX).

Please sign this consent form by typing your name and email address:
[open response]

1. Please also indicate your preferences regarding our use of video recordings:

☐ If I am part of an observation that is recorded, I consent to my likeness and/or voice being used in presentations, publications, or reports.

- Recordings of my likeness and/or voice may be distributed, but only if my likeness is blurred.
- Recordings with my likeness and/or voice may not be distributed; please only report on observational data in the form of written transcriptions that use pseudonyms.
- I teach an asynchronous online course, so this issue does not apply to me.

5. During interviews, we noted that we might use the materials they shared in publications and presentations and received permission verbally.

Page 2

Thank you for your interest in being involved in our study of peer review in hybrid and online composition classes! Please answer the following questions to confirm that your course is eligible for the study, and to indicate your availability.

2. Do you include peer-review workshops/activities in your composition class?
   - ☐ Yes
   - ☐ No
3. How are peer review groups formed in your class?
   - ☐ I create new peer review groups for each assignment.
   - ☐ Students are in the same peer review groups for the whole semester.
   - ☐ The LMS randomly assigns peer review groups for each assignment.
   - ☐ Students choose their own groups.
   - ☐ Other: _____
4. Do you conduct real-time (face-to-face or synchronous online) peer-review workshops in your classes?
   - ☐ Yes, and students exchange drafts prior to the live peer review session.
   - ☐ Yes, and students respond to each other's drafts before the live peer review session (e.g., comments through the LMS, Google Docs, etc.).
   - ☐ Yes, and students do not exchange drafts in advance of the live peer review session.
   - ☐ No, my peer-review workshops are asynchronous.
   - ☐ Other: _____
5. If the above options do not adequately characterize your peer-review workshops, please describe how you conduct peer review. [open response]
6. Does your class include a research paper assignment?
   - ☐ Yes
   - ☐ No
   - ☐ Not sure (please explain): [open response]
7. During which date(s) will the peer review for your research essay assignment occur? (If your peer review is synchronous, please include day of the week and time, as this information will help us schedule the observation.) [open response]

Closing text: Thank you, again, for your interest in and willingness to participate in our study! We will be selecting participants based on availability and schedules.

If more than eight instructors are eligible and available, we will randomly select two instructors from each institution. If you are selected as a participant, you will be notified by September 25th. All participating instructors will receive a $100 Amazon gift card.

Appendix C. Student Invitation Email Message and Video Script

Note to selves: We will email the below message to students (emails will be sent through our university Qualtrics sites and sent to their university email addresses). We will also ask instructors to embed this text and the accompanying links (to a video and a Qualtrics survey) in their course websites.

The yellow highlight indicates areas that need to be modified based on the researcher and what course she is studying.

Sending: Date
Subject: Invitation to Participate in Writing Research and Earn an Amazon Gift Card

Hello ${m://FirstName},

My name is _____ and I am _____ at _____. The section of _____ in which you are enrolled has been selected for a research study on peer review, and I'm writing to invite you to participate!

I will be observing peer review in your hybrid/online writing class. Observation includes me physically sitting with your peer review group on the day of peer review or viewing your online interactions with your peer review group and reviewing the feedback you and your peers produce. To participate in the observation—and be **entered into a drawing to win one of four $30 Amazon gift cards**—complete this brief survey: ${l://SurveyURL}

At the end of the survey, you will also have the opportunity to indicate your interest in participating in an interview. Students who participate in an interview will each earn a $20 Amazon gift card, in addition to being included in the drawing for the $30 cards.

Watch this brief video to learn more about the study:

{embed video} (see video script below)

The goal of the research is to learn about students' experiences with peer review in online and hybrid writing courses. Gaining student responses to these questions is critical for understanding effective strategies for peer review that help students improve their writing. Your participation will directly influence the ways writing is taught online at _____ and beyond.

The first step is to respond to this survey: ${l://SurveyURL}

I am happy to answer any questions you may have. Just email me at _____.

Thank you!

_____

This project has been approved by the Institutional Review Boards at [institutions A, B, C, and D] for the Protection of Human Subjects (phone XXX.XXX.XXXX).

Video Script

Hello, my name is _____ and I am _____ at _____.

I'm a member of a research group that's been studying effective online and hybrid learning. Your writing class has been chosen to offer your perspectives on the role of peer review, and I hope you'll participate! Your perspective on what makes peer review effective or ineffective is important and can help to strengthen online and hybrid writing courses at [your institution].

I will be observing your class during the peer review of your upcoming writing project. Specifically, I'll observe your peer review group's interactions as you give each other feedback on your writing. If you are in a face-to-face class, this means I'll physically sit with your group on the peer review day and audio record your conversation. If you're in an online class that meets synchronously, I'll observe and record your group's video chat. If you're in an asynchronous online class, I'll view your interactions with peers on the course website. Regardless of your delivery format, I'll ask you to share with me your essay drafts and the comments you gave and received during peer review. The goal is to see how these peer-review workshops function differently across the delivery formats, so your participation will have a big impact on how we understand what does and does not support student learning in online and hybrid writing courses.

As a thank you, students who agree to be observed will be entered into a drawing to win one of four $30 Amazon gift cards.

After the peer review takes place, I'll be interviewing the students I observed about their experiences giving and receiving writing feedback. All students who participate in an interview will receive a $20 Amazon gift card—that's in addition to being in the drawing for the $30 cards.

My research team and I are really interested in how students can best help their classmates improve their writing, so I would appreciate your help with this study. To indicate your interest in participating, fill out the survey at tinyurl.com/[insertname].

I'm also happy to answer any questions you have about the research. Just email me at {email}. Thank you!

Appendix D. Student Consent Form

Observation and Interview Consent Form

Thank you for your interest in participating in our study! The goal of the research is to learn about students' experiences with peer review in online and hybrid writing courses. Gaining student responses to these questions is critical for understanding effective strategies for peer review that help students improve their writing. Your perspective on what makes peer review effective or ineffective is important and can help to strengthen online and hybrid writing courses at [your institution] and beyond.

You have the opportunity to participate in the research in one of two ways: you can consent to observation, or you can consent to both observation and interview. As a thank you, students who agree to be observed will be entered into a drawing to win **one of four $30 Amazon gift cards. All students who participate in an interview will receive an additional $20 Amazon gift card.**

Consenting to an observation means:

- I will observe your interactions with your peer review group, which might include physically observing and audio recording a face-to-face session, attending and screen-capturing a video chat, and/or reviewing and taking screenshots of your contributions to the course website. I will only observe your group if all group members have consented to observation. I will select a group to observe by cross referencing the student consent forms with a list of peer review groups that your instructor provides. All recordings will be stored on a Google Drive folder accessible only to the research team. Your likeness and/or voice may be distributed in conference presentations, publications, or reports, but only if you give us permission to do so (see below); otherwise, observational data will be reported on as written transcriptions with pseudonyms.
- I will review the feedback you give to your peers and the feedback you receive, as well as the drafts you produce as part of the peer-review workshop. If we refer to or quote from the materials in reports, we remove any identifying information.

Consenting to an interview means:

- You will participate in one 30-45 minute, audio recorded interview, where I ask you about your experiences in the peer-review workshop that I observed. The interviews will either take place in person or via video chat. Audio recordings will be stored on a Google Drive folder only accessible to the research team; data from interviews will only be reported on as written transcriptions with pseudonyms.

Your participation in the study is completely voluntary and will have zero impact on your performance in the course. You may also choose to stop

participating at any time by simply emailing me [include address] and asking to be removed from the study. To protect your confidentiality, all identifying information (e.g., your name, your group members' names, your instructor, etc.) will be removed from observation field notes and interview transcripts; we will always use pseudonyms to refer to participants in presentations, publications, or reports.

If you participate in a face-to-face or synchronous video session that we record, then it is possible that you might be identified as a research participant, but the risk of participating in this study is no more than what you would experience in everyday life. Furthermore, I will only distribute your likeness and/or recorded conversation if you give permission (see below).

We will select one peer review group from each class (two classes from each institution, for a total of 8 peer review groups). If more than one peer review group in your class contains students who all consented to both observation and interviews, then we will randomly select a group to observe and interview.

By typing your name and email address below, you consent to this research and confirm that you are at least 18 years old. [open response]

Please also indicate whether you are willing to be observed and/or interviewed. Students who consent to the peer review observation will be entered into a **drawing to win one of four $30 Amazon gift cards. Students who participate in an interview will each receive an additional $20 Amazon gift card.**

- ☐ I consent to being observed and interviewed.
- ☐ I consent to being observed but not interviewed.
- ☐ Finally, please indicate your preferences regarding our use of video recordings:
- ☐ If I am part of an observation that is recorded, I consent to my likeness and/or voice being used in presentations, publications, or reports.
- ☐ Recordings of my likeness and/or voice may be distributed, but only if my likeness is blurred.
- ☐ Recordings with my likeness and/or voice may not be distributed; please only report on observational data in the form of written transcriptions that use pseudonyms.
- ☐ I am enrolled in an asynchronous online course, so this issue does not apply to me.

This project has been approved by the Institutional Review Boards [at institutions A, B, C, and D] for the Protection of Human Subjects (phone XXX.XXX.XXXX).

Appendix E. Course Observation Field Notes Template

Fall 2019 Study of Hybrid and Online Peer Review

Observation date/time:

Instructor pseudonym:

Student pseudonyms (indicate which have agreed to an interview):

Pre-Peer Review Activities. How are the students oriented to peer review? What instructions are they given, and in what format?

Peer Review Materials. Are there any materials (rubrics, worksheets, forums, etc.) related to the peer-review workshop? How do students interact with these?

Peer Review Environment. How are the students interacting with each other? What technologies are mediating that interaction?

Peer Relationship. How would you characterize the students' relationship with their peer group? (Friendly/unfriendly? Trusting/wary? Comfortable/uncomfortable?)

Peer Comments. How would you characterize the types of feedback students are giving to eachother (descriptive, evaluative, reader response, editing for style/grammar, asking questions, making suggestions)? Also, how are students sharing those comments with peers (verbally, in forums, via email, etc.)?

Post-Peer Review Activities. How does the peer-review workshop conclude? Are students directed to do something with the comments? Is there any explicit instruction on revising the paper in response to those comments?

Other comments/notes:

Appendix F. Instructor Interview Protocols and Questions

Instructor Interview 1 Protocol

Inform the instructor that they can stop the interview at any time, and that they can choose not to answer any question for any reason. Explain that if we present on or publish about this data, then we will not refer to the instructor by name (at this point ask if they want to pick their own **pseudonym).**

Reiterate the fact that no one except the four investigators will have access to the raw data and that all identifying information will be removed from the interview during transcription. The interviewee's colleague will not have access to the raw data until after the semester is complete.

Ask if the instructor wants to review the text from the email that described the study, which they reviewed before giving consent in Qualtrics. Ask if they have any questions about the study.

Background

1. What is your position at your institution?
2. How long have you been teaching online/hybrid classes?

Class

3. Can you briefly describe the course?
4. How long have you been teaching the course?

Assignment

5. I'm going to be observing your students' peer review for [assignment]. Can you tell me a little bit about that assignment?
    a. What's the goal? How are you scaffolding towards that goal? How are you measuring students' achievement of the goal?
    b. Do you give students feedback on their draft of this document?

Peer Review

6. Let's talk a little bit about peer review. What's the plan for peer review for this assignment?

7. How do you prepare students for peer review?
8. What do you feel is the purpose of peer review?
9. Do you feel like there's anything unique about peer review in an online/hybrid course? If so, what? If not, why not?

Wrap-up

10. How would you describe your students' relationships with their peers?
11. Is there anything else you'd like to add?

Instructor Interview 2 Protocol

Inform the instructor that they can stop the interview at any time, and that they can choose not to answer any question for any reason. Explain that if we present on or publish about this data, then we will not refer to the instructor by name (at this point ask if they want to pick their own **pseudonym).**

Reiterate the fact that no one except the four investigators will have access to the raw data and that all identifying information will be removed from the interview during transcription. The interviewee's colleague will not have access to the raw data until after the semester is complete.

Ask if they have any questions about the study.

Ice Breaker

1. How is the class going?

Assignment

2. I observed the students during the week that they were working on [assignment]. Can you talk a little bit about that assignment?
3. How did the peer review for that assignment go?

Peer Review

4. I observed the students during a class in which they _____. What was your experience facilitating that activity/workshop?
    a. Would you say it was successful? How so?
5. Did the students interact with their peers in other ways, beyond what I observed?
6. How familiar were students with their peer review group members? Had they read one another's work before?
7. Had you read these drafts? Or had you read a version of this assignment?

If not, will you before it's due?

8. Do you give students feedback on this draft? Or on another version of this assignment?
9. Do you read or grade or give feedback on the students' feedback to each other? If so, how did you feel about the feedback you reviewed? If not, why not?
10. What would you say your students gained from this workshop?

Wrap-up

11. How would you describe your students' relationships with their peers?
12. Is there anything else you'd like to add?
13. Oh, also, I forgot to ask earlier about demographic information. Can you share with me your pronouns, racial identity, and field / professional area of interest?

Appendix G. Student Interview Protocols and Questions

Fall 2019 Study of Hybrid and Online Peer Review

Inform the student that they can stop the interview at any time, and that they can choose not to answer any question for any reason. If we present on or publish about this data, then we will not refer to the student by name (at this point ask if they want to pick their own **pseudonym).**

Reiterate the fact that the student's instructor will not have access to the raw data and that all identifying information will be removed from the data prior to publication/presentation.

Ask if the student wants to review the Observation and Interview Consent Form that they previously signed. Ask if they have any questions about the study.

Demographics

1. Could you tell me a little bit about yourself? What year are you? What's your major? Where are you from? What are your pronouns and what is your racial identity?

Class

2. Can you briefly describe the course?

Assignment

3. I observed you during the week that you were working on [assignment]. Can you talk a little bit about that assignment? Was it easy/hard, new/familiar, enjoyable/annoying?

Peer Review

4. I observed you during a class in which you were peer reviewing each other's [assignment] drafts. What was your experience like in the workshop? Was it helpful? How so? Is there a difference/benefit to hybrid/online peer review?
5. Did you interact with your peers in other ways, beyond what I observed?
6. How familiar were you with your peer review group members? Had you read their work before? Had they read yours?
7. How does your instructor prepare you for peer review? Do you get feedback and/or a grade from your instructor on the feedback you created for

peers? If so, do you like this? If not, what do you wish were different?
8. How do you feel about giving feedback to your peers? How do you feel about receiving feedback?
9. Did you use the peer comments as you were revising?
10. Would you say that you feel more confident about your writing as a result of peer review?
11. Would you want to have peer review the next time you are writing an essay/paper/document?

Wrap-up

12. How would you describe your relationships with your peers in this class?
13. Is there anything else you'd like to add?
14. [If relevant]: Would you be willing to share your written essay feedback with me via an email attachment?

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About the Authors

Jennifer M. Cunningham is Professor of English and the Writing Program Coordinator at Kent State University, where she oversees first-year composition and online writing instruction. She serves as an editor for *Online Literacies Open Resource (OLOR) Effective Practices* and has been an At-large Executive Board member of the Global Society of Online Literacy Educators (GSOLE) as well as the Chair of the Conference on College Composition and Communication (CCCC) Online Writing Instruction (OWI) Standing Group. Along with her research team, she has articles published in *Composition Forum* and *College Composition and Communication*. Her work has also been published in *Written Communication, Computers and Composition, Online Learning,* and the *Journal of Response to Writing.*

Mary K. Stewart is Associate Professor and the General Education Writing program coordinator in the Literature & Writing Studies Department at California State University San Marcos, where she teaches first-year writing and MA-level composition theory and pedagogy. Her research interests include hybrid and online writing instruction, writing program administration, and writing assessment.

Natalie Stillman-Webb is Professor-Lecturer in the Department of Writing and Rhetoric Studies at the University of Utah, where she coordinates an online major and serves as Co-Director of Undergraduate Studies. Her research and teaching interests include online writing pedagogy, user experience, community engaged learning, and writing in the disciplines. She has published in *Computers and Composition*, *Kairos*, and *Journal of Business and Technical Communication*, as well as in the edited collection *Online Education 2.0: Evolving, Adapting, and Reinventing Online Technical Communication*.

Lyra Hilliard is a Principal Lecturer in the Department of English at the University of Maryland, College Park, where she co-directs the online and blended teacher training program for writing faculty, is the online and blended learning coordinator for the Academic Writing Program, coordinates the Undergraduate Teaching Assistants program, and teaches professional, academic, and creative writing. Her research interests include online and hybrid writing pedagogy, faculty development, creative nonfiction, and women's rhetoric.

The Community of Inquiry Framework

Applying the Community of Inquiry (CoI) framework—a social constructivist model of online learning comprised of cognitive presence, social presence, and teaching presence—to writing studies, this book investigates peer review in hybrid and online first-year writing courses. The authors draw on both theory and disciplinary practices to analyze multi-institutional case studies, interviews, and artifacts, offering scholarship that is both data-driven and pedagogically pragmatic. The results of their analysis present a pragmatic and pedagogically sound approach to navigating the complicated task of designing and facilitating courses that incorporate collaborative activities such as peer review.

Jennifer M. Cunningham is Professor of English and Writing Program Coordinator at Kent State University, where she oversees first-year composition and online writing instruction. **Mary K. Stewart** is Associate Professor and General Education Writing Program Coordinator in the Literature & Writing Studies Department at California State University San Marcos, where she teaches first-year writing and MA-level composition theory and pedagogy. **Natalie Stillman-Webb** is Professor-Lecturer in the Department of Writing and Rhetoric Studies at the University of Utah, where she serves as Co-Director of Undergraduate Studies. **Lyra Hilliard** is a Principal Lecturer in the Department of English at the University of Maryland, College Park, where she co-directs the online and blended teacher training program for writing faculty and teaches professional, academic, and creative writing. Collectively, they have published widely in scholarly journals and edited collections and have taken on a broad range of leadership roles within the field of writing studies.

Practices & Possibilities
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