A READERLY EYE: TEACHERS READING STUDENT MULTIMODAL TEXTS

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by

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Emily Wierszewski
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CHAPTER I

The Missing “How”: Literature on Teacher’s Roles and Responsibilities in Multimodal Pedagogy and Classroom Assessment

The term is coming to a close and Sara¹, who is both a graduate teaching fellow with four years of experience and a doctoral student in Rhetoric and Composition, squints at her computer screen. Sara is immersed in the process of responding to one of her College Writing II student’s final multimodal projects, a PowerPoint presentation of a semester’s worth of ethnographic research into a local fraternity. “Hmm, not really sure I like the red with the black on it,” she says, closely examining one of the slides (40). Moments later, she adds “I like the clear white though as opposed to this black and red that he's going with” (46). In an interview a few weeks prior, Sara articulated that her role as an instructor was to help students see the “rhetorical purposes” that drive multimodal composition and, similarly, rhetorical concerns such as “form reflects culture” and “interact with audience” dominate the list of evaluative criteria she drafted with her students for their final multimodal projects (142). Yet as she engages in the act of responding to her students’ projects, the rhetorical expectations she entered into the response situation with are overshadowed by evaluations based in conventions and aesthetics. When Sara makes these kinds of judgments, including the ones above about the use of color, she evaluates elements of the text in isolation from the text’s rhetorical

¹ All research participants’ names have been replaced with pseudonyms. Identifying details have also been removed to protect their privacy.
purpose or audience. She bases her decisions upon what may be the proper execution of rules or conventions for graphic design, or upon her own artistic sensibility. But Sara does not clearly base her decision upon the rhetorical principles she mentioned in her interview and classroom documents. For instance, in her evaluative criteria she mentioned audience but does not consider how the use of particular colors is related to the audience and might contribute to the text’s readability or to the target audience’s reception of the text. In this way, many of Sara’s evaluations reveal a set of values that seem to contradict her earlier emphasis on rhetorical concerns. Further, while Sara cites the influence of rhetoric frequently, nowhere in any of these documents does Sara specifically mention her knowledge about or preference for the use of color or of graphic design principles. Based upon interview data and classroom documents such as syllabi and assignment sheets, it can be inferred that neither Sara nor her students appear to be aware of these values prior to the response context.

Across town in her home office, Susan is busily responding to her students’ PowerPoint research progress reports for her online Business and Professional Writing course. Susan has been working as a non-tenure track (NTT) English professor for over 30 years and is a published technical and fiction writer. Working from her vast experience and the research-backed textbook she has chosen for the class, Susan is confident that she knows what professional readers would expect from her students’ presentations, and she has designed her assignment around helping students to create texts that would be well-received by those readers: “I mean we know what viewers expect from these presentations. And they expect fragments not bullets and um you know
animated transitions” (110-112). As she reads her students’ work, Susan actively looks for assignment criteria such as fragments and animations, judging whether or not students’ texts contain the features she has made it clear that she wants to see. Although Susan is certain that her assignment criteria reflect what business readers want, as she engages in the response process she encounters features not accounted for by those criteria. In one project, for instance, a student failed to animate bulleted points, which was a criteria Susan had insisted upon. At the same time, the text was organized in an innovative way that could not be explained by Susan’s criteria. In a retrospective protocol conducted after Susan had finished responding to her students’ work, Susan confessed, “That was a particularly strong thing that she did. Um, so I it kind of cancelled out one of the things that I would've taken a point off otherwise […] That one I cancelled out on because she did do such a wonderful job with that organization piece of it” (60-61, 65-66). In other words, like Sara, Susan found that her expectations going into the response situation did not always account for the features in student work she found successful. In this case, Susan encountered a particular organizational arrangement that she valued that was not present on her rubric. To account for this feature, Susan was forced to veer from the rubric and manipulate how she calculated the student’s grade.

In writing programs everywhere, scenarios like these are doubtlessly being repeated as teachers integrate multimodality in their teaching practices, either at the direction of their writing programs or as a result of their own pedagogical beliefs. Multimodality, or the production and interpretation of texts that integrate multiple modalities such as the linguistic, visual, aural, gestural, or spatial and that are typically
mediated by computer technologies, is an increasingly endorsed practice within Rhetoric and Composition. Recently, for instance, the National Council of Teachers of English (NCTE) (2005) composed their “Position Statement on Multimodal Literacies,” which indicated that “The use of different modes of expression in student work should be integrated into the overall literacy goals of the curriculum and appropriate for time and resources invested” (para. 3). The Council of Writing Program Administrators (2008) also augmented their “WPA Outcomes Statement for First Year Composition” two years ago to account for digitally mediated non-print texts, writing that students should be able to “Understand and exploit the differences in the rhetorical strategies and in the affordances available for both print and electronic composing processes and texts” (para. 14). Finally, the first article to explicitly use the term “multimodal” in *Computers and Composition*, a leading peer-reviewed journal on pedagogy and technology, was Sean D. William’s (2001) “Part 1: thinking out of the pro-verbal box,” published in 2001. Since 2001, 21 articles that overtly mention multimodality have been published in the journal, suggesting an increase in professional interest in multimodal pedagogy.

Anne Frances Wysocki (2004a) has argued that multimodality is a practice that “needs to be informed by what writing teachers know,” but the recent swell of multimodal scholarship has not often investigated how teachers like Susan and Sara implement or respond to multimodality in classroom contexts (p. 5). As Pamela Takayoshi and Brian Huot (2009) confirm, “There is little data-based scholarship that
Most scholarship on multimodal pedagogy has focused on *why* teachers ought to integrate multimodality in the classroom or on *what* they ought to do as they integrate it, but has neglected to address *how* teachers have adapted to new pedagogical models. Yet data-based research grounded in teachers’ classroom practices can reveal important information about multimodal pedagogy, including the challenges inherent in its execution. For instance, as the excerpts from Susan and Sara’s protocols and contextual documents illustrate above, teachers do not always have a clear sense of what they value in student multimodal work until they are engaged in the response process. As Takayoshi and Huot have argued, research into teachers’ practices also represents “an important step in understanding contemporary written communication practices and instruction” (p. 98).

Sara’s response processes, for example, illustrate contradictions between de-contextualized, conventional evaluative practices and situated, rhetorical theories of composition.

In this dissertation, the multimodal classroom practices of eight teachers of higher education including Sara and Susan were explored in order to provide empirical information about teachers’ practices as they relate to new, multimodal composition pedagogies; in this study, the term “empirical research” used to indicate “research that carefully describes and/or measures observable phenomena in a systematic way planned

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2 Three exceptions to this trend include the work of Anderson, D., Atkins, A., Ball, C., Homicz Millar, K., Selfe, C., & Selfe, R. (2006), Murray, E.A., Sheets, H.A., & Williams, N.A. (2010), and Takayoshi & Huot (2009). These three studies relied predominately on surveys of teachers’ practices and are discussed in more detail later in this chapter.
in advance of the observation” (MacNealy, 1999, p. 6). Specifically, this dissertation was designed to

a. Investigate how teachers read their students’ multimodal work, linking response practices to context.

b. Describe the values that teachers rely on to make decisions in their multimodal evaluative practices, as well as to explore the possible origin of those values.

This study relied on verbal protocols, interviews, and artifact analysis to investigate teachers’ response practices as they engaged with student multimodal work, recognizing both the centrality of assessment in teaching and learning, and the paucity of research on response devoted to teachers’ interpretive practices. While existing research on teacher response may indicate best practices for wording commentary, it reveals little about teachers’ reading and response practices including how and why teachers interpret and construct evaluative decisions in classroom contexts.

In this chapter, the exigency of these research problems is identified through a close examination of scholarship in multimodal pedagogy, multimodal assessment, and teacher response. In particular, it is argued that scholarship on multimodal pedagogy and assessment has tended to focus more on generating theory or best practices than on investigating with data-based research the realities of multimodal pedagogy for teachers in classroom contexts. As a result, the field of Rhetoric and Composition lacks a clear sense of how teachers have adopted new multimodal composition pedagogies. It is also demonstrated that studies of teacher response practices should focus on response as an
interpretive act, beginning with the reading process rather than the resulting written commentary. Further, studies of teacher response and writing assessment as an interpretive and contextual practice are reviewed to illustrate that teachers’ evaluative decisions are highly contextual and situated. Finally, the organization of the remaining chapters in the dissertation, including the methods, findings, and discussion, is previewed.

**Multimodal composition in the classroom**

In this section, an overview of current scholarship on multimodal pedagogy is provided to illustrate that this scholarship has gravitated toward discussions of *why* teachers need to consider multimodality’s place in the classroom, and of *what* teachers might do to integrate it into their classrooms. For instance, teachers have often been encouraged to appreciate and implement new forms of composition in order to prepare students for life outside of the classroom, or to acknowledge the role of students’ expertise in and struggles with composing new text types. Sonya Borton and Huot (2007) have indicated, for example that “Teachers who want to assign and evaluate multimodal texts need to develop some understanding of the challenges involved in composing such texts” (p. 103). Similarly, Dong-shin Shin and Tony Cimasko (2008) have encouraged teachers “to appreciate the particular opportunities and constraints faced by their own students” (p. 391). Rarely has research on multimodal pedagogy addressed *how* teachers have dealt with the revision of pedagogy to encompass multimodality in classroom contexts, however. As Takayoshi and Huot have written, “we don’t have as rich an
understanding of what teachers encounter when they make such a commitment to change” (p. 109-110).

In one of the germinal works in the field of multimodal composition, the New London Group’s (2000) “A Pedagogy of Multiliteracies: Designing Social Futures,” teachers are instructed to adopt multimodal composition practices if they are interested in promoting social equity. In the first paragraph, pedagogy is defined as, “a teaching and learning relationship that creates the potential for building learning conditions leading to full and equitable social participation” (p. 60, emphasis added). Later in the piece, the authors declare that, “education should provide all students with access to fulfilling employment” (p. 6, emphasis added) and should “include a vision of meaningful success for all” (p. 7, emphasis added). The New London Group has argued that we are at a juncture in history in which it is possible now more than ever for literacy education to do what they believe it is meant to do: eliminate inequality and provide all students with equal opportunities for success. With the importance of globalization and rapid changes to technology, many kinds of difference (including cultural, linguistic, economic, social, for example) are increasingly prevalent. According to the New London Group, diverse literacy practices, many of which involve multimodal elements, are all around us and have rendered traditional, standards or rules-based literacy models—which have focused on the communication of one “standard” form of English or writing—inadequate. They write that “States must be strong again, but not to impose standards; they must be strong as neutral arbiters of difference. So must schools. And so must literacy pedagogy” (p. 15). In place of a curriculum focused on one standard form of literacy that does not
account for difference, the New London Group has advocated that teachers integrate a pedagogy of multiliteracies in which multiple, varying forms of reading and writing, including multimodality, are critiqued and enacted through the process of design.

In the New London Group’s concept of design, difference (both students’ own and that of others’) is embraced and negotiated. It is within the process of design that multimodal texts are often created. Through the pedagogical strategies of Situated Practice, Overt Instruction, Critical Framing, and Transformed Practice, teachers help students understand the conventions of literate practices, as well as how those conventions have come to be and the cultural values they reflect (p. 34). Students then design their own texts, using conventions available to them or choosing to resist or reshape those conventions. The “Redesigned” text that a student produces through design “may be variously creative or reproductive in relation to the resources for meaning-making available in Available Designs. But it is neither a simple reproduction (as the myth of standards and transmission pedagogy would have us believe), nor is it simply creative” (p. 23). In other words, students do not construct “Redesigned” texts from the ground up according to the New London Group. Rather, while students exercise creativity in design, they are always working with preexisting conventions, tools, and materials. By asking students to participate in design and create multimodal texts, the New London Group believes that teachers can help students to acquire the skills they need to be successful outside of the classroom, including a strong sense of social purpose and advocacy.
The New London Group has posited that a pedagogy that incorporates multimodality and design practices does not require students to abandon their own culture or beliefs and, as a result, students learn that differences (their own and others’) are a productive resource in and out of the classroom and that they do not have to conform to a set of standards when they conflict with their identity. For the New London Group, pedagogy and its multimodal components are ostensibly a means to a social end. They ask teachers to confront difference and encourage students to compose through a process of design, which involves the interpretation and “redesign” of multimodal texts, in order to show students that all forms of literacy are equally valuable. In their vision, the job of the teacher is to provide students with access to the composing behaviors and tools that they will need in the future without asking students to surrender their “subjectivities,” helping to eliminate the inequalities that they believe standards- and print-based composition pedagogies have typically reproduced (p. 18). Further, the New London Group has charged that when implementing this new pedagogical model, “Literacy educators and students must see themselves as active participants in social change, as learners and students who can be active designers—makers—of social futures” (p. 7). In other words, in the New London Group’s vision, teachers must rethink their curriculum to accommodate multimodality and the social change it represents, but also be willing to shift their self-perception to see themselves and their students as capable of affecting social change.

Gunther Kress’ (1999) theory of multimodal pedagogy is also motivated by a concern for students’ futures. In Kress’ view, a teacher must always be actively thinking
about the shape that English will take in the future (p. 66). Kress has argued that teachers ought to guide students toward the kinds of “dispositions, knowledges and skills which they will need in their future lives” (p. 66). Teachers must adopt multimodality in the classroom to help students learn the kinds of multimodal compositional behaviors, attitudes, and abilities that will be required for their lives beyond the classroom as workers, citizens, and policy makers in a global society. Kress justified the place of multimodality in scholarship and curriculum by characterizing writing as an archaic and elite practice. He has contended for instance that, “Writing now plays one part in communication ensembles, and no longer the part” (2003, p. 21). If teachers and scholars neglect this fact, Kress (1999) has predicted that the discipline of English will not “remain relevant” (p. 67). While writing was once a favored form of communication, “the culturally most valued form of representation,” the visual is now agitating writing’s entitled post (2005, p. 5). In Kress’ words, “The visual is taking over many of the functions of written language” in contemporary society (1999, p. 68). In many of his texts, Kress has compared contemporary texts to those from decades past to show an increased reliance on the visual mode for conveying information (2003, 2005).

Like the New London Group, Kress has underscored the importance of teaching multimodal composition through the agentive process of design. According to Kress, in the past the classroom was a site of mastery and critique in which students learned to use a set of conventions for communication and to analyze texts, usually in the alphabetic mode only. But because “of intense social change” and its effects on communication, conventions for the “constitution both of texts and of social arrangements” are in flux (p.
Kress has maintained that design accounts for this instability, shifting the goal of the classroom from the repetition of unexamined conventions to the process of reflecting, “remaking,” or “transforming” conventions, modes, and other communicative resources (p. 87). The student designer has control over her own text and has the freedom to explore “What is needed now, in this one situation, with this configuration of purposes, aims, audience, and with these resources, and given my interests in this situation?” (2003, p. 49). She chooses to use, manipulate, and/or repurpose the content she wants to communicate, the mode(s) she uses, and the media through which her content is conveyed (p. 50). The process of design encourages students to consider new textual, social, or political arrangements in their work. These new arrangements can lead to change in Kress’s vision, for “To make meaning is to change the resources we have for making meaning, to change ourselves, and to change our cultures” (p. 11). While Kress does not often directly address the role of the teacher in his work, there are obvious implications for teachers inherent in his theory of multimodality. If teachers hope to prepare their students for life outside of the classroom, for instance, then according to Kress it is necessary for teachers to adopt multimodality. In Kress’ theory, teachers must shift the focus of the classroom from mastery of conventions for composition to the reflection on and transformation of those conventions through the process of design. Further, the process of design requires the teacher to relinquish control over the tools and modes required for any assignment.

Bill Cope and Mary Kalantzis (2000a, 2000b, 2009) have also suggested that teachers move away from the transmission of a standard set of conventions in the writing
classroom if they hope to prepare students to engage productively in life outside of the academy. Cope and Kalantzis (2009) contend that in contemporary workplace and civic settings, people now have more agency than they did previously and “are more and more required to be users, players, creators and discerning consumers” (p. 172). Changing workplace and civic roles have implications for student roles, transforming the classroom into a site for “a pedagogy for active citizenship, centered on learners as agents in their own knowledge processes, capable of contributing their own as well as negotiating the differences between one community and the next” (p. 172).

In particular, Cope and Kalantzis have claimed that “the enormous role of agency in the meaning-making process be recognized” (p. 175). They suggest that students need experience both examining and producing diverse types of texts, including those with multimodal elements, and that students must engage in the practice of transforming existing textual arrangements through the process of design. In Cope and Kalantzis’ vision of design, as in the New London Group’s vision, composers rely on “Available designs,” which may consist of multiple modes or media, in order to create. Available designs are modified through the process of design so that the resulting product or “the redesigned” is always new in some way. Agency is invoked throughout the process of design, as students make decisions about how to represent themselves and their ideas. Cope and Kalantzis have illustrated that the activity of design both alters Available designs and “leaves the designer Redesigned,” as it “is an expression of the individual’s identity at the unique junction of intersecting lines of social and cultural experience” (p. 177).
An important part of Cope and Kalantzis’ theory of a pedagogy that integrates multimodality has to do with difference. They have maintained that in a global economy, students will need to be able to “collaborate and negotiate with others who are different from themselves in order to forge a common interest” both in and outside of the academy (p. 174). In the classroom, they argue that students and teachers alike need to learn to embrace difference. For example, they propose that permitting students to have a choice over the modalities they want to use to communicate can accommodate a diversity of learning styles and, at the same time, the “conscious” choice that students make about the modes they use can lend itself to “more powerful learning” (p. 181). Additionally, teachers ought to approach discussions about conventions in ways that acknowledge their situated nature and cultural specificity in order “to describe their open-ended and shifting representational processes and account for their purposes” (p. 176). In Cope and Kalantzis’ model of multimodal pedagogy, teachers are responsible for preparing students to take on agentive roles in workplace and civic life through the process of design and acceptance of difference. Teachers must provide students with opportunities to act as communicative agents, as increased agency will characterize their future roles as citizens and workers.

Reflecting many of the principles of the New London Group’s treatise on multiliteracies, Cynthia Selfe (2004a) has also charged that part of the purpose of the composition classroom is to equip students to be “citizens” who “can ‘participate fully’ in new forms of ‘public, community, and economic life’” (p. 55). Selfe believes it is essential for teachers to integrate multimodality because it is a necessary condition for
citizenship and participation; multimodal composition produces students who can be active and literate in a world of constant change (2004a, 2004b, 2009). Multimodality is also needed in students’ working lives, as Selfe and Pamela Takayoshi (2007) have stressed: “Whatever profession students hope to enter in the 21st century […] they can expect to read and be asked to compose multimodal texts of various kinds” (p. 3).

According to Selfe, facility with multimodal composition is increasingly required in the outside world, which consists of both work and civic environments. To prepare students to be active in this world, it is the composition teacher’s ethical duty to teach students multimodal composition.

Selfe (2004b) has also stressed that multimodality is a literate practice that students already engage in, and if instructors ignore students’ multimodal literacy practices and adhere to what she has termed a “single-minded focus” on print-based, traditional forms of literacy, composition will become “irrelevant” for “students engaging in contemporary practices of communication” (p. 72). More recently, Selfe (2009) has articulated that a bias toward print “functions to limit our professional understanding of composing as a multimodal rhetorical activity and deprive students of valuable semiotic resources for meaning making” (p. 617). Selfe traced the history of sound in composition studies, noting that the preference given to print in the academy since the Industrial Revolution has served to “limit students’ sense of rhetorical agency to the bandwidth of our own interests and imaginations” (p. 618). Teachers must instead recognize the rhetorical potential in multiple modes, respecting students’ sense of “rhetorical sovereignty” by honoring their diverse multimodal practices and by providing “them new
ways of making meaning, new choices, new ways of accomplishing their goals” (p. 642). In other words, composition needs to expand to encompass multimodality to be relevant for students, who will (and may already) find themselves engaging in multimodality outside of the classroom.

Selfe has also written about how teachers ought to implement multimodality, advocating a rhetorical approach to multimodal pedagogy. In the tradition of Aristotle (2007), who defined rhetoric as “The faculty of observing in any given case the available means of persuasion” (p. 37), Selfe has also claimed that students must be taught to use all available “Semiotic resources to think critically, to explore, and to solve problems” (2009, p. 644). In Selfe’s view, contemporary rhetors do not seem to rely solely on writing as a means of persuasion but, rather, employ an ever-expanding variety of “means” such as images, sounds, gesture, space, and so on, all of which can be easily found, repurposed, or created using digital technology. Additionally, students must engage in both the interpretation and production of multimodal texts (2004a, 2004b, 2009; Selfe & Takayoshi, 2007). While in the past students may have been encouraged to think about and discuss multimodal texts, it is imperative for Selfe that teachers ask students to create these texts, too. That is, the mere interpretation of multimodal texts is insufficient to properly prepare students to be effective communicators: “Instructors of composition need to teach students not only how to read and interpret such texts from active and critical perspectives, they also need to teach students how to go beyond the consumption of such texts—learning how to compose them for a variety of purposes and audiences” (Selfe & Takayoshi, p. 3). Selfe has stressed a rhetorical approach because of
its transferability. Rhetorical principles can be easily applied across disciplines and communicative contexts and, according to Selfe and Takayoshi, give students the tools they need for life outside the composition classroom. For Selfe, teachers must include multimodal composition practices in their classrooms if they believe that the content and activity of the composition classroom should be related to the kinds of composition work done outside of the classroom.

Like Selfe, Mary Hocks (2003) has advocated that teachers use rhetorical principles to help students produce effective multimodal texts: “Critiquing and producing writing in digital environments actually offers a welcome return to rhetorical principles and an important new pedagogy of design” (p. 632). To illustrate how rhetorical strategies function in digital, multimodal texts in a recent article, Hocks critiqued two published academic hypertexts. She relied on three rhetorical criteria in her analysis: audience stance, transparency, and hybridity (p. 632). While Hocks referred to these criteria as components of “visual digital rhetoric,” she applied them to both the visual and verbal components of the hypertexts (p. 632). Her analysis revealed that these three criteria helped to explain the authors’ choices and their effects in the sample hypertexts. Audience stance, for instance, refers to how the text and author are positioned in relationship to the audience through features such as ethos and the freedom the reader is given over the reading process. In the first hypertext, Hocks discovered that the author “uses the interface and the tone of her essay to create arguments using pages of text and illustrations readers are familiar with, while subtly making readers construct a reading and a way of seeing the essay” (p. 635). In other words, the author has addressed the
readers’ needs by providing some familiar, linear elements but in “subtle” ways encouraged the audience to participate in the text by integrating some non-linear elements. The second criteria, transparency, relates to the degree to which the author has relied on conventions in order to make the materiality of the text “transparent” or invisible to the reader. In the first sample hypertext, Hocks pointed out that the author had used design conventions such as repetition and color, which help to guide the reader through the text. The final rhetorical strategy, hybridity, refers to the multimodal relationships in the text. In the second sample hypertext, for instance, the author mixed visual and verbal modes by using color, text, and graphic organizational features to convey information in a map.

Hocks concluded the piece by providing teachers with practical steps for integrating these rhetorical strategies in the “design” of texts, including linking assignments to course goals, teaching students to critique texts and to brainstorm about available conventions that fit their purposes and audiences, and integrating storyboarding techniques that account for audience needs. Hocks has proposed that students need to engage in both the analysis and production of multimodal texts. In keeping with the social mission of multimodality outlined by Kress and the New London Group, Hocks has also maintained that students should be able to “design their own technological artifacts that use these strategies but are more speculative or activist in nature” (p. 645). In addition to allowing students the freedom to play with convention and exercise activism, Hocks has contended that the design process, which is “fundamentally visual and multimodal,” also moves students toward an ostensibly rhetorical understanding of
how “designed spaces and artifacts impact audiences” (p. 652). According to Hocks, teachers should approach multimodal instruction using their existing rhetorical knowledge, and explore how that knowledge might be applied or transformed to account for meaning making multimodal texts.

The belief that multimodal texts are best understood and produced through the application of rhetorical strategies is also reflected in Jennifer Sheppard’s (2009) recent article, “The Rhetorical Work of Multimedia Production Practices: It’s More than Just Technical Skill.” Using field notes, Sheppard traced her own multimodal authoring process as she created a website. Based on an analysis of the choices and difficulties she faced, Sheppard concluded that the production of multimodal texts involves negotiation between “traditional” and “technological rhetorical strategies” (p. 125). While more traditional, print-based rhetorical strategies concern the fit between text elements such as content or purpose and audience, technological strategies address issues such as the fit between “technologies, media, and other production variables” and the audience, for instance (p. 127). According to Sheppard, students will need to produce multimodal texts “to become successful academically, professionally, and civically,” and teachers “need to assist students in cultivating awareness of and an appropriate set of responses to the array of traditional and technological rhetorical choices” they may have at their disposal (p. 128). In her conclusion, Sheppard proposes several classroom practices that she believes contribute to “rhetorical competencies” (p. 129) including, for instance, guiding students through an analysis of the influence of technological rhetorical strategies that involve technologies or media and their relationship to the meaning of a text, helping students
think carefully about real audience needs and providing students with sample effective texts (pp. 128-129). For Sheppard, therefore, multimodal composing is necessary for success both in and out of school, and the best way for teachers to help students create effective multimodal texts is through the combination of “traditional” ways of thinking about rhetoric and revised “technological” ways of thinking that accommodate the exigencies of multimodal texts and technologies.

Many scholars have proposed that teachers adopt a rhetorical approach to multimodality, given the transferability of such an approach across text types and contexts and the fact that composition teachers are likely to be familiar with rhetorical principles already. Sean D. Williams (2001) has added that if we adopt this kind of rhetorical approach to teaching composition but do not integrate multimodal texts, then we undermine our rhetorical mission. Teachers ask students to make choices based on the best fit for their audience and purpose, but if they limit students to the verbal mode only then they do not account for situations in which students’ “most effective rhetorical strategy might be to use a visual” (p. 27). Williams proposed a hybrid pedagogy that teaches students to “read, write, and critique the ‘old forms’ of literacy—specifically verbal literacy—and to read, write, and critique the ‘new forms’ of visual representation that exist in new digital media” (p. 29). Focusing on print-based texts only also has political consequences, in that it contradicts the mission of critical thinking, teaching students that there is only one valid form of composing “when our goal as critical educators is to help students value the multiple forms of literacy and representation that constitute their lived experiences” (p. 26). When they leave the classroom, students will
carry this narrow understanding of composition and literacy with them, and it will contribute to how they assign value to texts in their lives. For Williams, teachers need to address multimodality in the classroom for “political” and “rhetorical” reasons because it shows students the value in multiple forms of texts and literacies, but also gives students access to a wider range of resources with which they can make effective rhetorical decisions.

Wysocki (2004a) has often spoken directly to teachers about how their teaching practices might evolve in multimodal pedagogies. For example, Wysocki has encouraged teachers to consider new text types in terms of their materiality. She characterized changes to compositional processes in an increasingly global and technological society in terms of “new media,” rather than multimodality, and did not specify the media or modalities that comprise new media texts. New media texts are “new” in that they are constructed to draw attention to their own materiality in novel ways. A text’s materiality encompasses both the physical materials and technologies used to produce that text, but also the contexts “in which the texts we make circulate and have weight” (p. 15). Computer technology has brought the issue of materiality to the fore, since technologies give writers more “control over the appearance of their texts” (2003, p. 184). Both the New London Group and Kress’ definitions of multimodality align with several of the principles of Wysocki’s new media, including the fact that the construction of both multimodal and new media texts involves great attention to how and why texts have been put together in particular ways in particular contexts. However, while Kress and the New London Group specify that multimodal texts contain multiple semiotic modes, according
to Wysocki’s theory of new media, even a print-based text can be considered a new media text if its author has drawn attention to its materiality.

Like Kress and the New London Group, Wysocki believes teachers must integrate new compositional practices including new media into the writing classroom for social purposes. She has written that new media practices can be used to “Teach people possible routes to agency” (2004a, p. 8). According to Wysocki, to be active agents students must not only produce and design texts but also understand and know how to work with/against the material structures that give meaning and shape to texts. When students are cognizant of a text’s materiality, they can choose to create and interpret texts in ways that either reproduce or challenge a text’s structure or conventions. Becoming aware of and affecting these structures is what gives students agency, for “When someone makes an object that is both separate from her but that shows how she can use the tools and materials and techniques of her time, then she can see a possible self—a self positioned and working within the wide material conditions of her world, even shaping that world—in that object” (2004a, p. 21). A portion of the composition teacher’s job, therefore, is to encourage students to pay attention to the “material potentials” in the form of their new media texts: “To be responsible teachers, then, we need to help our students (as well as ourselves) learn how different choices in visual arrangement in all texts (on screen and off) encourage different kinds of meaning making and encourage us to take up (overtly or not) various values” (2003, p. 186). Rather than giving students a set of guidelines for producing a document that includes visuals, Wysocki has advocated that students derive principles of design on their own. She suggested teachers accomplish this by having
students “pull ‘principles’ out of those compositions and their experiences” rather than just by giving them a set grouping of design principles (2004b, p. 172). Teaching principles this way acknowledges the important role of context in new media text production and also helps students realize that people put texts together in particular ways for particular purposes (2003, p. 195). Wysocki (2004a) has also invited teachers to participate in this process, and prodded teachers to approach “different-looking texts” with “generosity,” asking why authors may have made certain compositional decisions rather than assuming authors have made errors (p. 23).

In her work, Jody Shipka (2005, 2006) has also directly addressed teachers and proposed that an important part of multimodal pedagogy lies in providing students with “a series of open-ended tasks that ask them to consider how even a seemingly simple, straightforward, and relatively familiar communicative objective might be accomplished in any number of ways and with any number of semiotic resources” (2006, p. 358). Shipka has advocated giving students the freedom to create using a spectrum of “semiotic resources,” or tools for meaning making including visual, verbal, or aural modes, that extend beyond what is usually “allowed” in composition classrooms in order to help students become dynamic and skilled communicators (p. 370). As evidence of the efficacy of this approach, Shipka has showcased her own students’ multimodal work. In “A Multimodal Task-Based Framework for Composing,” for instance, Shipka shared two student projects to illustrate that students thrive when given extensive freedom over the choices they make in multimodal composition, including decisions about the “materials,
methodologies, and technologies” (p. 285) used to assemble texts as well as the “purposes and contexts” that motivate them (p. 286).

Like Shipka, Daniel Anderson (2008) used examples from his own classroom in order to suggest that teachers need to change the structure of their classrooms. He has proposed that teachers allow students to experiment and compose with new “low-bridge” or familiar, user-friendly technologies during class time, as opposed to asking them to create and experiment at home and then bring their compositions in for analysis. Anderson has claimed that this kind of classroom model fosters creativity and motivation among students, two behaviors he sees as instrumental to the social mission of multimodality. In his article, Anderson provided three case studies of assignments from his own classroom, using student projects as examples. He revealed how, by integrating “low-bridge” technologies and permitting students to “remix” or repurpose existing compositional material (such as images, sounds), teachers can “create environments where writers can experience the personal engagement that will translate into motivation” (p. 58).

Based on the results of their data-based study of the multimodal composition practices of a group of ESL students enrolled in a first year writing course, Shin and Cimasko propose suggestions for teachers to improve the efficacy of multimodal pedagogy, particularly for ESL populations. In their study, the authors analyzed the web pages students created as a final part of an argumentative writing assignment, discovering that students exhibited a preference for the linguistic—even in the multimodal components of their texts. One student, for instance, integrated graphs into his web page
because “he was aware of the frequency and importance of graphs in academic and professional texts” and felt that they contributed to the professional feel of his work (p. 385). They triangulated this textual analysis with information from student and teacher conferences, classroom interactions, and students’ previous drafts. The authors explained the dominance of a print-linguistic perspective in a few ways. First, they attributed it in part to the instructor’s emphasis on print in classroom instruction and in his assessment criteria, which placed “limited emphasis on the use of multimodality” (p. 390). The researchers also proposed that students were trying to develop their identity as academics, and that most of their experience with multimodal texts had been non-academic in nature. Finally, they emphasize that students did tend to use multimodal elements “to express their cultural and national identities” (p. 390). On the basis of their findings, Shin and Cimasko implore teachers to “increase the priority of non-linguistic modes” in instruction and assessment (p. 391). They also indicated that teachers need to be “more attuned to” the “rhetorical value” of multimodal texts “in academic settings,” as well as to the challenges that multimodal composition poses for their students (p. 391).

The arguments for integrating multimodality in the classroom made by scholars such as Cope and Kalantzis, Kress, the New London Group, Wysocki, Selfe, and Williams are both plentiful and compelling. Although each has suggested a slightly different approach, these theorists have all demonstrated that if composition teachers hope for their discipline to remain relevant, equipping students with the kinds of compositional strategies and behaviors required for successful life in contemporary contexts, then it is critical that teachers integrate multimodality in their classrooms.
Others such as Shipka or Anderson have extended these arguments for the place of multimodality, suggesting changes to curriculum or to classroom organization to accommodate the goals and purposes of multimodal pedagogy. Scholars have laid a complex and challenging foundation for teachers interested in multimodality, and what are needed now are data-based accounts of those teachers’ practices. For instance, the pedagogy proposed by the New London Group, which integrates multimodal composition and multiple literacy practices, is driven by utopian social goals. According to the New London Group, this kind of pedagogy, in theory, ought to work to eliminate inequality among students and in society. But how does the New London Group’s multimodal pedagogy really work in practice? What challenges does a transition to this pedagogy pose for teachers? What elements of the pedagogy do teachers adopt in practice, and what gets overlooked or dismissed? In other words, while it is clear why teachers ought to integrate multimodality and many suggestions have been made about what they can do to change classroom practices, relatively little has been said about how teachers approach these tasks.

A small handful of data-based studies do directly address how teachers integrate multimodality in the classroom, however, and each of these studies has relied upon survey methods to collect that data. Takayoshi and Huot, for instance, recounted profound changes to curriculum and classroom structure in their writing program and described how, using research, they monitored teachers’ transitions to a multimodal curriculum and the use of computer classrooms. During the first semester in which these changes were instituted, the researchers distributed surveys to faculty and to students in
the program “which asked parallel kinds of questions about what was happening in the classrooms and what the users of these spaces thought about those practices” (p. 97). Three major findings emerged from the survey data, the first of which was that the integration of new technologies “pushed faculty to learn and see themselves as learning from their students” (p. 100). Surprisingly, in spite of the obvious time commitment involved, faculty were not resentful about having to learn new technologies or new ways of teaching but “embraced the role of learner” overall (p. 102). They understood these kinds of adaptations as necessary for a “better fit” between their teaching and “students’ needs and desires” (p. 102). Second, Takayoshi and Huot learned that teachers appreciated that the presence of computers “makes the work of composing more visible” (p. 105). Instructors were able to do things they had not thought possible previously, like asking students to engage in the act of composition or revision during class time. Finally, the survey data illustrated that curricular and classroom changes necessitated shifts in thinking about the structure of the classroom and class time as well as student and teacher roles. Some teachers lamented, for instance, that the presence of computers permitted students to be off-task during class time. As Takayoshi and Huot maintained, “the configuration of the classroom itself and the presence of the computers interfered with faculty expectations for control over the classroom,” and required that teachers rethink what the significance of this seemingly “off-task” student behavior might be (p. 107). Overall, the researchers found evidence that within their program, “new technologies are often successfully incorporated into strong pre-existing contexts of learning and teaching” (p. 99). While teachers certainly faced many difficulties, the survey data
indicated that for the most part teachers widely embraced the curricular and technological modifications to the writing program.

Daniel Anderson, Anthony Atkins, Cheryl Ball, Christa Homicz Millar, Cynthia Selfe, and Richard Selfe (2006) conducted a survey of higher education composition instructors as well, but their sample encompassed institutions from across the country in order to gather data about how teachers integrated multimodality and the kinds of support and structures that were available to them. The survey, which consisted of 141 questions and was distributed online, was completed by 45 respondents representing 31 different institutions of higher education. Participants ranged from tenured faculty through graduate students. Although the individual results for each question and section in the survey are far too extensive to report here, the authors did identify several findings as significant. The first was that they noticed teachers tended to focus on the visual mode in their assignments, rather than addressing the full spectrum of modes proposed by scholars like the New London Group. Teachers also reported that students should be able to compose multimodal texts on their own time in labs or at home, which the researchers suggested demonstrates the need for sensitivity to issues of access. Finally, Anderson et al. noticed that participants indicated they were dissatisfied with the professional development and resources available to them, which tended to focus too much on technical aspects of multimodality rather than on practical advice for integrating and assessing multimodal texts in the classroom. As a result, many teachers claimed to have taught themselves most of what they knew about multimodal composition, or to have learned from their peers. Anderson et al.’s survey data, which was collected in 2005,
suggests that teachers lack the kind of institutional support needed to successfully implement multimodality, and that although they understood definitions of multimodality as encompassing multiple modes, in their assignments teachers primarily recognized only visual and verbal modes.

In a more recent survey, Elizabeth Murray, Hailey Sheets, and Nicole Williams (2010) polled several teachers from their home institution, Ball State University, as well as volunteers from other higher education institutions, “In order to discover the instructors' current assessment practices and attitudes about their use of multimodal compositions in the classroom” (para. 18). They hoped to compare the approaches to multimodal assignments and assessment taken by Ball State University teachers, who are provided with a rubric by the writing program, with the approaches adopted by instructors from other colleges and universities. The researchers discovered that many participants expressed uncertainty about how to approach assessing multimodal texts and had voiced concern that their writing programs and institutions had not provided them with adequate training on multimodal assessment. When asked how they approach the task of assessing student multimodal texts, nearly a third of teachers responded that they simply give students credit if they have done what the assignment asked them to do, while roughly a tenth claimed that they base their assessment on a written component of the multimodal texts. Less than a tenth said they use a rubric to assess student projects, and Murray et al. suggest that a solution to teachers’ discomfort and uncertainty about multimodal assessment lies in the adaptation of print-based rubrics to new text types.
The research of Takayoshi and Huot, Anderson et al., and Murray et al., which used data about teachers’ practices to address questions about how teachers move from one kind of pedagogy into another, provides useful information about the complexities involved in multimodal pedagogy. For instance, Murray et al.’s survey revealed that teachers were unsure about how to assess their students’ multimodal texts and suggests that more research and professional development is need to enhance our understanding of this particular pedagogical practice. Anderson et al.’s study also confirms that teachers want professional resources to guide their transition into multimodal pedagogy. This body of research on teachers’ multimodal practices has relied on surveys and teachers’ self-reports of practice as a data source, and survey methods are useful in that they tell us about teachers’ perceptions of the state of multimodality and their teaching. They illuminate issues that might not be clear from other methods; for instance, teachers’ complaints about professional development in Anderson et al. and Murray et al. would not have been obvious from a method like classroom observations alone. Yet as Ian Hodder (2000) has maintained, “‘What people say’ is often very different from ‘what people do,’” and discrepancies between self-reports and actual practices are a limitation of survey data (p. 705). A balance between methods that rely on self-reports and those that depend upon empirical observations of teachers’ practices is required to capture the full complexity of multimodal pedagogy in practice. In this study, therefore, an empirical investigation of teachers’ multimodal classroom practices was conducted using verbal protocols, interviews, and artifact-analysis as methods in order to create data-based
descriptions of teachers’ classroom practices and of how they have adapted (or not) to new pedagogical models.

**Multimodal assessment**

This study focuses on teachers’ multimodal response practices because the act of response represents several facets of teachers’ practices all at once, including what a teacher values in a particular set of multimodal texts but also her learning goals for students and the ways in which she conceives of the purpose of multimodality more broadly. Further, the purpose of a study of teacher practice is in part to illustrate the challenges that teachers face when integrating multimodality, and the work of Anderson et al. and Murray et al. illustrates that the more broad practice of multimodal assessment is a vexing process for many teachers. Although few scholars have written about multimodal assessment, those that have tend to follow the trend established by scholarship in multimodal pedagogy more generally, providing suggestions as to why assessment practices need to be changed, or what principles might guide those changed practices in the form of heuristics or rubrics.

As writing in digital spaces became an increasingly common classroom practice in the mid to late 1990s, some scholars addressed the implications of digital text production for assessment practices. Although they were not writing specifically about multimodal texts, their arguments do involve the evolving nature of text (for instance, the increase in visual elements in print texts made possible by computer technology) and serve as a foundation for arguments made later specifically about multimodal assessment.
In one of the most cited of these early texts on digital composition and assessment, Takayoshi (1996) suggested that technology was contributing to changes in the nature of writing practices. Because digital texts made the connection between form and content (or form and function) visible, Takayoshi argued that it was critical for writing teachers to examine this connection in their assessments. Specifically, teachers needed to consider the relationship between “rhetorical goals” and the new kinds of textual features and choices that their students created or risk a return to formalism: “Without careful consideration of the relationship of visual rhetoric and rhetorical goals, computer-generated textual features could easily become the grammar and punctuation of current-traditional rhetoric” (p. 250).

Takayoshi also predicted that “it may be that we need to step outside what we already know about text” in order to appreciate and understand digital forms of writing (p. 255). A few years later, Nancy Grimm, Wysocki, and Marilyn Cooper (1998) made a similar claim about co-authored or “multivocal” texts (p. 251). The authors asserted that new kinds of texts often pose “questions of validity” for readers, especially in contexts where readers are not accustomed to seeing those new kinds of texts (for instance, the integration of multivocal webtexts in academic spheres). New texts also require readers to “develop new practices to help them create useful interpretations” (p. 274). While old reading practices do not need to be fully abandoned, readers must “move away” from those practices to attend to the unique features of new kinds of texts (p. 274). While Grimm et al. concentrated on the issue of new text types for research, their work has pedagogical implications. First, it builds on Takayoshi’s assertion that when encountering
new text types, teachers might have to “step outside” of their notions about how texts and meaning are created. And second, when teachers research students and new kinds of student texts, or when students are involved as co-authors in research, teachers should be “responding to and making room for their voices, rather than speaking for them or representing them as others” (p. 281).

Also writing in the late 1990s, Gail Hawisher and Charles Moran (1997) speculated about response to digital texts, focusing on writing published in on-line environments. Their main argument was that, “responding on-line is different from responding off-line,” and the authors proposed how computer technology was poised to change the nature of teacher response (p. 116). For example, they claimed that because writing in digital spaces was more “highly personal” than print-based writing (p. 116), teachers’ responses would also “become, over time, more intimate, more informal, than on-paper response” (p. 117). Another example had to do with the characteristics of on-line writing, which Hawisher and Moran described as more “informal, fluid, playful, evanescent, social” than its print-based counterpart (p. 121). Changes to the nature of writing itself would require that teachers rethink what “success” looked or sounded like in student work (p. 122); in other words, teachers would need to develop new values or “criteria” for assessing digital texts (p. 122). According to Hawisher and Moran, all of the differences between on-line and print communication would lead to consequent changes to response practice that potentially altered “the teacher-writer relationship” in significant ways (p. 124). While Takayoshi and Grimm, Wysocki, and Cooper argued for new understandings of “text” and reading in relationship to teacher response, Hawisher and
Moran focused on encouraging teachers to see the positive ways in which on-line writing might permit them to accomplish more in their responses.

Scholars writing specifically about the assessment of multimodal texts have often borrowed from these earlier arguments about assessing digital texts. Meredith Zoetewey and Julie Staggers (2003) have suggested that computers are “a means for opening up new thinking, reading, and writing activities” (p. 134). Like Takayoshi, they contended that computers allow for multimodal forms of communication which are “fundamentally different” from print (p. 135). For instance, multimodal compositions are able to resist the “linear constraints” of print, and they also make issues of “design and information” inseparable, as Takayoshi astutely noted almost a decade earlier (p. 135). In short, computer technology gives writers “new opportunities” for composing. Zoetewey and Staggers have alleged that teachers cannot rely on old methods for assessing print texts in digital environments because it will cause them to neglect what is “new” about new media. Teachers must relinquish their assumptions about the role of text and image, including the tendency to assume that text is the dominant mode. They must also move away from the inclination to adopt design “rules” from other disciplines: “Representing complex concepts in graphic design as over-simplified precepts—couched as rules, tips, or guidelines—turns visual rhetoric into a matter of ‘superficial correctness.’ […] Even more problematic, we run the risk of deprivileging rhetoric” (p. 145). The authors stressed that the visual elements of texts must be viewed rhetorically to avoid what Takayoshi termed a return to “the grammar and punctuation of current-traditional rhetoric” (p. 250). They urged teachers to “focus instead on transforming the rhetorical
criteria we already understand, such as coherence, clarity, relevance, so that we can read and evaluate them as they operate in new media” (p. 148). The key is “transformation”: teachers must take into account that multimodality is different from print in profound ways and “transform” what they know about rhetorical effectiveness. Zoetewey and Staggers concluded by providing a rubric that they claim “might be helpful for teachers new to assessing student electronic discourse” (p. 152)

Madeleine Sorapure (2005) has also advocated a rhetorical approach to understanding and evaluating student multimodal work. She has argued that because there are many possible combinations and projects in multimodal composition, teachers need assessment processes that allow them to address the effectiveness of a “variety” of texts. While Sorapure acknowledged the strengths of a “broad” rhetorical approach in accomplishing this task, she lamented that such an approach “doesn’t in itself offer any specific guidance or criteria for handling the multimodal aspects of the composition” (p. 3). In order to address the “multimodal aspects” of a text without being too prescriptive or neglecting context, Sorapure has proposed applying rhetorical tropes like metaphor and metonymy during the assessment process. She believes that meaning is constructed through the relationships between the modes and that rhetorical tropes can help teachers to grasp the nature of those relationships. Sorapure has articulated that by re-purposing the rhetorical tropes, teachers are able to account for new kinds of arrangements and, at the same time, build off what they already know to evaluate those arrangements. This combination of existing and inventive assessment processes is crucial to her theory of multimodal assessment, which specified that, “On the one hand, we need to attend to the
differences between digital and print compositions in order to be able to see accurately and respond effectively to the kind of work our students create in new media. [...] On the other hand, we need to work from what we know” (p. 1).

Borton and Huot (2007) also suggest a rhetorical approach to multimodal assessment, contending that, “all assessment of multimodal compositions, should be tailored to teaching students how to use rhetorical principles appropriately and effectively” (p. 99). They indicated that teachers engage in conversation with students about rhetorically-based assessment criteria for assignments because open dialogue about effective texts can encourage students to assess their own work. They provided a sample list of assessment criteria for multimodal texts that address features like purpose, audience, tone, and transitions (p. 101). Teachers are also encouraged to alter classroom dynamics and to integrate “studio review sessions” in which teachers guide students through rhetorical critiques of their work and to use “progress journals” for teachers to monitor students’ progress and for students to monitor their composing progress (p. 104). Borton and Huot also supplied an example of a rubric and revisions to that rubric based on student conversations. Finally, they exhort teachers to produce their own multimodal texts because it will allow them to be better at “assessing the challenges presented by such projects” (p. 110). For Borton and Huot, student involvement in the assessment process is integral, and the authors encourage teachers to think about how they might make the assessment process more transparent and prominent in their classrooms.

Lee O’Dell and Susan Katz (2009) have asserted that teachers need assessment practices that are “both generative and generalizable” across contexts and text types.
They draw on theory from both visual and verbal communication in order to propose the kinds of choices or “conceptual processes” involved in the composition of multimodal texts (p. 204). The first of these choices or “conceptual processes” involves “moving from given to new” elements in a text (p. 205). This means that authors will always build on something existing in order to create something novel. In the second choice, “creating and fulfilling expectations” (p. 206), communicators address readers’ expectations for a text to help them make sense of its message. For instance, if a student was creating a website, she might include a search box and a list of links on the side because readers expect to be able to navigate a website using these features. The third choice, “selecting and encoding,” involves culturally-situated decisions about text production (p. 207). While the color white, for instance, indicates purity in Western cultures, a composer would need to consider that white connotes death in some Eastern cultures. Finally, the fourth choice, “logical/perceptual relationships” has to do with how various elements of the text are related together (p. 208). Each of these choices is contingent upon the particular rhetorical context in which the text is situated. When teachers assess student multimodal work, the authors reason that they ought to be aware of these choices and their fit within a particular rhetorical context; further, students must be taught to be aware of these choices as well through the production of reflections. The authors believe in the utility of this choice-based vision of assessment, maintaining that an analysis of these choices could be used to “guide the assessment of any multimodal composition” (p. 199).

Kathleen Yancey (2004) also envisioned an encompassing assessment process capable of accounting for many new types of texts. She implicitly touched on issues of
multimodality in her discussion, defining digital texts as those that appear in a digital environment. Yet in her examples, she often characterized digital texts as integrating print and other modalities. Yancey has typified the differences between print and digital composition in terms of “layers,” arguing that in contemporary contexts, “Print and digital overlap, intersect, become intertextual” to create “new ways of writing” (p. 89). These new digital texts have diverse “virtues” and therefore require a new set of “values” (p. 90). Yancey has contended that teachers need to reexamine their textual values or risk limiting their understanding of what digital texts are capable of: “Without a new language, we will be held hostage to the values informing print, values worth preserving for that medium, to be sure, but values incongruent with those informing the digital” (pp. 89-90). Like Zoetewey and Staggers, Yancey has asserted that digital texts “offer us new opportunities” and if we apply print-based values, we might miss out on what those new opportunities afford or, even worse, we might consider those new opportunities to be errors (p. 100). Yancey has illustrated, for instance, that coherence functions differently in print and digital texts in order to prove that applying print-based notions of effective composition like coherence to the assessment of digital texts is detrimental. While in print coherence is achieved through “the relationship of words to words, and words to context” (p. 90), in digital texts coherence is “a function of a pattern that is created through the relationships between and among context, screen, image, the visual, the aural, the verbal” (p. 95). She suggested that in part because of the multiplicity of coherence possibilities in digital texts, when teachers assess digital texts they ought to use a heuristic so that they can “think more systematically about these texts” (p. 96). She has
proposed a four-part heuristic that addresses issues of “arrangement,” authorship, “intent,” and the relationship between “intent and effect” (p. 96).

Most of the scholars represented here concur that digital or multimodal forms of composition require either the modification of existing or creation of new practices and criteria for assessing these new forms. In some cases, scholars even provide teachers with revised or new criteria in the form of heuristics or rubrics. O’Dell and Katz, for instance, supply teachers with a set of compositional choices borrowed from visual and verbal communication theory to keep in mind as they assess, and Borton and Huot integrate a set of sample rhetorical criteria for formative assessment of multimodal texts. What this scholarship on multimodal assessment has not fully addressed, however, is how teachers conduct multimodal assessment in their classrooms. The only data pertaining to teachers’ multimodal assessment practices comes from the survey research conducted by Anderson et al. (2006) and Murray et al. (2010). While Anderson et al.’s survey encompassing a wide variety of questions pertaining to multimodal pedagogy, one section of the survey was devoted to assessment. In this section, all teachers participating in the study reported that when they assess multimodal texts, they base their evaluations at least partially upon the fit between the content of the work and the rhetorical context. Other assessment criteria teachers found useful were audiences, the clarity of their purpose and content, their use of technology, and the thought and effort they put into the project. Survey participants also claimed that they used rubrics or student reflection essays to assess multimodal texts, and many maintained that they assessed student multimodal work in all of its stages, not just as a finished product. Murray et al.’s research was more focused
around the use of rubrics in multimodal assessment, and the authors found that many teachers expressed discomfort with the multimodal assessment process and felt their writing programs had not properly trained them to effectively assess multimodal texts. Studies like these provide a glimpse of pressing issues in teachers’ multimodal assessment practices as well as a data-based description of how teachers have approached the adoption of these new practices. This dissertation seeks to provide additional empirical data about teachers’ practices, including the challenges they face transitioning from print-based to multimodal assessment, the kinds of values they assign to multimodal texts, and the assumptions inherent in their values.

**Teacher response: Textual product or interpretive practice?**

In order to ascertain the assessment values and processes teachers employ when evaluating student multimodal work, recent research in teacher response has demonstrated that a study of their reading processes is necessary. This body of scholarship has emphasized that response is an interpretive, rather than a purely textual act (Edgington, 2005; Fife & O’Neill, 2001; Huot, 2002; Phelps, 2000). In other words, while the focus of response research has traditionally been on teachers’ written commentary, the reading or “interpretive” process precedes and informs that written response; without the interpretation, there could be no written commentary. In this section, historical perspectives on response are reviewed in order to align the present study with the interpretive perspectives that oppose more traditional, product-based conceptions of response. Studies that have proposed or adopted a view of response as
interpretive practice are then described to demonstrate that while the role of interpretation in response research has been noted in the research, few investigations of classroom assessment have actually looked at teachers’ interpretive processes. This dissertation, therefore, begins like any study of teachers’ response should: with a focus on the reading process.\textsuperscript{3}

For decades, response scholars have predominately focused on two central problems: what makes an effective written response to student work, and how does written response affect student writers? In the 1980s, Nancy Sommers (1982) lamented that “We do not know in any definitive way what constitutes thoughtful commentary” (p. 148). In response to this dilemma, Sommers studied the written comments made by 35 teachers as they responded to the same set of three essays. To her dismay, Sommers discovered that although pedagogical theory at the time stressed the importance of higher-order concerns and an eye toward revision, teachers in the study focused on lower-order concerns and did not encourage revision in their responses. Based on her data, Sommers made several suggestions for the shape of written commentary including a focus on higher-order concerns and continuity between written comments and classroom expectations and behaviors. Appearing in the same issue of College Composition and Communication as Sommers, Lil Brannon and C.H. Knoblauch (1982) analyzed 40 teachers’ written responses to a text and found that, although teachers’ comments tended to be of two types, both were the result of teachers attempting to control student work by

\textsuperscript{3} White (1995), Edgington (2005), and others have pointed out that response really begins the moment a teacher creates and distributes an assignment for her students. For this reason, an artifact analysis of teachers’ classroom materials was triangulated with data from the reading process in this study.
imposing an “Ideal” text upon it. It is worth noting that the work of Sommers and Brannon and Knoblauch lacked an authentic context for response: teachers were not responding to their own students’ work, and therefore the comments that teachers were able to provide were lacking rich and important contextual information (for instance, Sommers criticizes teachers for their tendency to give “vague directives” [p. 153] when a lack of context makes it nearly impossible for the teachers in her study to be anything but vague). Regardless, Sommers and Brannon and Knoblach’s research confirmed that there were serious problems with the ways that teachers were responding to student work. As Jane Mathison Fife and Peggy O’Neill (2001) have argued, their work also implicitly established that response was a textual product. Both Sommers and Brannon and Knoblauch found fault with the written comment on student work, and as a result, the scholarship that followed also conceived of teacher response as a phenomenon located within written text (Fife & O’Neill).

Some theorists turned to generating guidelines for written response to circumvent the problems that Sommers and Brannon and Knoblauch had observed. For instance, Brooke Horvath (1984), suggesting that “the amount of accessible advice on how to respond productively to student writing is scant,” synthesized over 80 pieces of research on written response to provide guidelines for creating effective written commentary (p. 136). He emphasized the importance of understanding student work “as unfinished” (p. 138) and creating comments that are “student- as well as text-specific” (p. 141). Richard Straub (2000) also outlined principles for sound written response. To generate his list of best practices, his extensive research studied how his own written responses functioned
within the classroom. Based on self-reflection, Straub provided seven guidelines for generating effective written commentary, including behaviors like “Giving priority to global concerns” (p. 34) and tailoring comments to “the stage of drafting and relative maturity of the text” (p. 42). To examine the nature of written comments generated by teachers across the country, Robert Connors and Andrea Lunsford (1993) launched a “large-scale study of the sorts of comments teachers were actually making on student papers” (p. 205). They solicited and analyzed teachers’ marked-up versions of student text from across the country. Focusing on global commentary, Connors and Lunsford discerned that while most teachers were addressing rhetorical issues in their written comments, teachers were not “communicating their rhetorical evaluations effectively” (p. 218).

At times, studies of written response have acknowledged the influence of contextual factors on teachers’ evaluative processes. Melanie Sperling (1994), for instance, researched one teacher’s response practices, collecting data from the teacher’s written comments on student work as well as her interactions with students in the classroom. Based on her analysis, she found that the teacher employed many different reader perspectives as she read, and that those perspectives differed greatly for two particular students in the class and were contingent upon her perception of those students’ needs and abilities. The teacher provided comments that were more positive in nature and written more like a peer for the student she regarded as the best writer in the class, while her comments for the worst writer were more focused on grammatical issues and were more negative overall. Sperling suggested that response is a social process, one that is
both influenced by contextual factors like teachers’ perceptions of their students’ abilities and influences students’ self perceptions and writing (p. 177). Through the publication of this study, Sperling was among the first in the field to illustrate that teacher response was best understood when situated in the larger classroom context of which it is a part.

Straub (1996) also emphasized context in his research on the written responses to a single student text made by four famous composition scholars. He found that there were varying degrees of “directive” and “facilitative” comments made by each teacher, evidence that teachers should not dismiss the potential of directive comments in certain circumstances. Instead of thinking of directive or facilitative comments (or any type of comment, for that matter) as inherently good or bad, Straub urged teachers to connect their use of particular types of comments to contextual factors like their own responding styles, classrooms, and students. Straub revealed a tendency to view response as a textual product throughout the text, however, concluding that, “It is what we value in student writing, how we communicate those values, and what we say individually on student texts that carry the most weight in writing instruction” (p. 246). In other words, composing the written comment is the most important activity for a writing teacher.

In most studies of response, the students’ voice is also neglected. Sandra Murphy (2000) laments this trend, contending that response is a sociocultural event, and the ways in which students comprehend and apply teachers’ commentary is a critical part of the response event. Murphy expressed discomfort with the term “teacher response” because she believes that response is constructed through interactions between teachers and students—a written response has no meaning until the student engages with it. A small
body of research has focused on students’ perceptions of teacher response, however. Sperling and Sarah Warshauer Freedman (1987) talked with a “good” student and her teacher to investigate why the student repeatedly misunderstood her teacher’s written comments. In their research, they found that the student’s values were focused around pleasing the teacher by literally following the teacher’s written instructions, while the teacher wished that the student would take more agency over her writing and develop her own voice based on his comments. This mismatch between the student’s and teacher’s writing values, enacted through the production and interpretation of written commentary, was identified as the central problem. Based on their research, the authors propose that both teachers and students need to have more open discussions about what they value in the process of writing.

Straub (1997) also surveyed a group of students about “which comments they find most useful or why” (p. 92). Students were given a sample essay and teacher comments and asked to rate the effectiveness of the comments as if they were receiving the essay back from their own teacher. They also answered questions about the usefulness of different kinds of teacher comments. The students’ responses indicated that they were inclined to prefer comments that gave them some idea as to how to improve without being overly directive. While the research situation for the study was artificial in that students were not rating feedback they had received on their own work from their own teacher, Straub acknowledges this fact, writing that the data does not “suggest how all students or students in general perceive teacher comments,” but the data should be used
instead to encourage teachers to think more carefully about the messages sent by their written commentary (p. 117).

In all of these studies of teacher response, the act of teacher response has been located within a written text. Yet, as Louise Phelps (2000) has claimed, response scholars who have researched and theorized about written response have long been focused on the wrong “metonym”—that is, they have concentrated on the resulting product of the more complex process of reading, the process that forms the basis for response (p. 93). There has been an emphasis on the rhetorical, rather than hermeneutical, aspects of teacher response within the scholarship (p. 93); in other words, research has been centered on the language of response rather than on response as an interpretive act (Phelps). Charles Bazerman (1989) identified a possible motivation for this trend: “How we comment on student essays is an easier subject, visible and open to inspection” (p. 139). The reading process, on the other hand, has “remained secret and obscure, hidden in unexamined private experience” (p. 139). Fife and O’Neill have confirmed that studying written texts has been more “convenient” for response researchers than studies of reading or conversations with teachers and students (p. 309). While existing text-based research may indeed be “easier” or more “convenient,” indicating best practices for wording commentary that seem equally “easy” and “convenient” for teachers to adopt, text-based research cannot reveal the source of teachers’ written responses (Huot, 2002). In other words, it a text-based approach can tell us “how we respond” but not “why we respond” in the ways we do (p. 112).
While scholars such as Fife and O’Neill, Huot, Phelps have produced theoretical treatises on the role of reading in response, few studies have actually investigated response as an act of interpretation. The majority of that research has focused on the reading processes of assessment raters. For instance, Huot (1988) explored reading differences between novice and expert raters in his dissertation and Carolyn Vaughan (1991) conducted think-aloud protocols of holistic scorers as they read essays to determine what was occurring “in the rater’s mind” as each rater made decisions about a text. Vaughan acknowledged that evaluative decisions were made throughout the response process, beginning with reading and ending with assigning a score. She also found that despite similar training, the raters in her study relied on “individual approaches” and their own “methods” for reading (p. 121). A few years later, Judith Pula and Huot (1993) utilized verbal protocols and interviews to study the reading processes of teacher-raters as they read and holistically scored a set of student essays. Pula and Huot’s study was intended to verify the results of Huot’s (1993) earlier work, which also employed verbal protocols to explore whether or not the process of holistic scoring interfered with novice and expert raters’ reading processes. Specifically, Pula and Huot were interested to learn why raters at all levels of proficiency tended to use similar criteria during the rating process and discovered that the criteria were the result of raters’ shared experiences as members of related discourse communities. Similarly, Edward Wolfe (1997) investigated differences between psychometric raters of varying proficiencies, finding that the most proficient raters were able to delay their evaluations
until they were finished reading and to resist personal engagement with the text more so than the less proficient raters.

Some interpretive scholarship has been specific to Composition and Rhetoric, however. In 1989, Bruce Lawson, Susan Sterr Ryan, and W. Ross Winterowd compiled an anthology of teacher narratives about the process of interpreting student texts entitled *Encountering Student Texts: Interpretive Issues in Reading Student Writing*. James Zebroski’s (1989) text on the influence of teachers’ response voices on reading student writing was published within this collection. Zebroski walked his audience through several different readings of a paper written by one of his students to illustrate that what he was able to observe in each reading was contingent upon the theoretical perspective he adopted, and each perspective affected the meaning he was able to make from the text. Based on this analysis, Zebroski emphasized, “It is less important what we make of student writing than that we make something” (p. 46). Patricia Murray’s (1989) work on the influence of academic discourse on teacher response also appears in this collection. In her short piece, Murray compared the act of reading literature to reading student work, encouraging teachers to move away from their roles as teachers and from a model of academic text to better see the possibilities and meaning of student work. Also appearing in the anthology was Bazerman’s self-exploration of his reading process. Like Murray, Bazerman compared reading student work to reading other kinds of texts, but argued that reading student work is unique because it is driven by specific goals that determine the stance a teacher adopts toward the text, because the teacher’s reading is influenced by her
knowledge about the author and his or her needs, and also in part because the educational system itself “defines the interaction” (p. 144)

Anthony Edgington’s (2005) recent study also explores teachers’ interpretive practices from within the discipline of Rhetoric and Composition. Edgington used empirical research to investigate the reading processes of a group of readers with varying levels of experience. Participants were all higher education instructors who were asked to engage in a concurrent verbal protocol as they read their own students’ texts; protocol data was triangulated with interviews and retrospective protocols. After analyzing the concurrent protocol data, Edgington discovered that the responses teachers constructed as they read correlated to the written responses they produced afterwards, affirming theorists’ assertions that the reading process informs the writing process. He also learned that contextual factors like the teacher’s knowledge about or relationship to her students factored into the kinds of evaluations that the teacher formed about student texts. Edgington’s findings illustrate that response is highly contextual and “is a multidimensional activity” that includes the reading process but also all of the teacher and student interactions that precede that reading (p. 142).

Phelps (2000) has claimed that while studies that focus on response as an interpretive act originating in the reading process such as Edgington’s study above account for context, those than focus on written commentary tend to neglect the influence of contextual factors, treating response as if it was “an autonomous event independent of other texts and events of the classroom” (p. 95). Yet research has demonstrated that contextual factors play an important role in the reading process and contribute to the
judgments teachers make as they respond, as scholars such as Edgington have affirmed. Fife and O’Neill have also argued for the importance of context in studies of response, maintaining that the “full context” of response, which might include features like the classroom context, teachers’ reading processes, and both student and teacher voices, ought to be considered by response researchers (p. 304). Previous text-based studies of response that have excluded these contextual factors fail to capture the complexity of response and do not characterize response for what it truly is: an act of “communication” between teachers and students (p. 306).

A constellation of contextual factors surrounding the student, the classroom, and the teacher herself may impact the response process. For instance, Arnetha F. Ball’s (1997) work illustrates that teachers’ cultural backgrounds affect the expectations for students and student work they bring to the response process. In her research, Ball asked a group of European-American teachers to evaluate a set of formal and informal writing samples from three groups of students: African American, Hispanic-American, and European American. Teachers were provided with a holistic scoring rubric, were trained in its use, and then asked to apply it to a sample of student writing. These European American teachers gave better scores to European American students’ work overall, and scored European American students higher on “organization, coherence, and mechanics” (p. 176). Ball then repeated the study using the same materials and rubric with a group of African American teachers. She discovered that African American teachers tended to score the essays evenly across all groups of students, and that the scores they gave were generally lower than those given by the European American teachers. The African
American teachers’ expectations for all groups of students were obviously more stringent than the European-American teachers’, and Ball has indicated that this trend is cultural: “In the African-American culture, it is often felt that teachers who have low expectations for their students are denying them opportunities to learn how to participate and survive in the real world” (p. 183). Further, African American teachers are more likely to communicate their expectations clearly to their students, as “many African-American teachers feel that low expectations and lack of explicitness in assessment are ill-affordable luxuries within the current social and economic climate that stigmatizes those who use non-standard varieties of English” (p. 183).

Reflecting on their experiences with a local writing assessment project, Patricia Stock and Jay Robinson (1987) relate that discussions with teacher-raters about the decisions they had made during the assessment process demonstrated that “meaning emerges as a result of a transaction between a reader and a text—a transaction in which a reader's background knowledge and past experience form expectations that are at least as important in the construction of meaning as the encoded thoughts and intentions of the writer” (p. 105). In their work, they discovered teachers placed equal evaluative emphasis on the student’s actual performance on the page and their preexisting expectations for student texts and abilities. Because expectations are formed from teachers’ “background knowledge” and “past experience,” the authors argue for increased “tolerance” of variation between rater’s responses and maintain that in conversation with one another, teachers are capable of coming to a consensus (p. 105).
Similarly, Loren Barritt, Stock, and Francelia Clark (1986) discovered through a study of placement readers in their writing program that readers approached student essays with expectations about the student authors in mind. Participants in the study read and judged sample essays and recorded their thoughts about those essays. The raters then came together for a discussion, and afterwards the researchers analyzed raters’ “statements about evaluations” for salient issues (p. 317). They found that raters had specific expectations about the student authors in mind, and that those expectations were generated from each individual’s teaching experience. Further, teachers’ expectations influenced the kind of reading that raters gave to a text. When the author of student work was obviously what teachers had expected, “a ‘typical’ eighteen-year old college freshman,” the author was invisible and it was easy for them to respond to the text only (p. 322). However, “when the expected student is not found, the reader begins her active characterization of the author so that she can work together with the student writer to construct a coherent text” (p. 322). It was crucial for readers to create new expectations based partially on their impressions of the author and her intentions in order to make sense of the text. Although Barritt, Stock, and Clark studied the responses of holistic raters reading student work outside of a classroom context, they conclude by assuring readers that teachers’ expectations about students similarly affect the readings they give to their own students’ work.

Paul Diederich (1974) cautioned teachers against the use of their expectations for and knowledge about students and their abilities during the assessment process. He referred to this contextual knowledge as “bias,” suggesting that teachers often determine
students’ grades based on this bias (p. 11). He summarized another research study that demonstrated that teachers’ contextual knowledge about students, such as whether or not they were in “honors” sections of English, affected their assessments of student work. The texts labeled as written by “honors” students were evaluated more favorably than others. While decisions informed by this kind of contextual information or “bias” might be permissible for what he called “practice” essays in the classroom, Diederich has argued that teachers should avoid bias when making judgments about texts in the classroom that are meant to be evaluated in terms of “how well each student actually writes. Then we are judging writing, not students” (pp. 12-13). Several decades later, Edgington discovered that teachers’ readings were greatly impacted by their “personal beliefs and values, classroom experiences, relationships with students” (p. 141); he concluded that these outside factors, what Diederich referred to as “bias,” were actually facilitative. Tobin has also argued that when a teacher reads student work, she is simultaneously reading contextual knowledge about her students and her classroom and this knowledge is what enables a teacher “to read a student text productively” (p. 15). Similarly, Huot (2002) has contended that, “context not only affects the ways in which we read our student writing but actually makes a cogent reading possible” (p. 125).

Janet Emig and Robert Parker, Jr. (1976) generated a theory of teacher response based on a set of interdisciplinary texts on reading and their own experiences, founded upon the “basic assumption” that what “the reader anticipates […] determines the nature of his response” (p. 6). They examined the source of teachers’ anticipations for student work, identifying factors like teachers’ prior experiences with school-based writing, the
approaches to literature they have been encouraged to pursue in their own graduate training, and events in their personal lives. Their scholarship was motivated by questions about why teachers held such different criteria in mind for student work, and Emig and Parker contended that contextual factors and the anticipations they inform potentially influence how teachers respond to student work. The authors conclude by proposing that all teachers ought to think carefully, either individually or with other teachers or mentors, about their personal and professional experiences and their potential impact on their response processes and they provide a list of questions for teachers to consider. Pula and Huot also researched the motivations behind holistic raters’ criteria, but unlike Emig and Parker, the researchers were interested in why a group of raters with different training managed to use similar criteria to rate student essays. Analyzing data collected from concurrent protocols, retrospective probes, and a “confirmatory interview” (p. 240), the authors found that the teacher-raters’ “personal background, professional training, and work experience” influenced the way they read and rated student essays (p. 257). They reasoned that because readers belonged to a shared discourse community and had similar backgrounds, they were able to articulate similar value sets despite differences in training and experience with holistic scoring.

Scholarship indicates that teachers’ response practices are best understood not as written products but as interpretive practices that are influenced by a number of contextual factors related to the teacher, her students, and her classroom. This dissertation, therefore, studies teachers’ interpretive reading processes with the understanding that reading is where teachers’ responses originate and that, as Huot
(2002) has confirmed, a study of reading can illustrate why teachers respond in particular ways to multimodal texts. Teachers’ reading processes are also situated within authentic classroom contexts and within a consideration of teachers’ unique professional trajectories and philosophies in order to discern the influence of contextual factors in teachers’ multimodal response practices.

Organization of the dissertation

In this section, an overview of the study was provided, and the study was situated in more detail within scholarship in multimodal pedagogy, multimodal assessment, and teacher response. It was argued that researchers have focused too much on the “why” and “what” of multimodal pedagogy, and not enough on teachers as they transition into new, multimodal pedagogical models. A review of literature in teacher response also illustrated that many theorists have contended that the process of response actually begins with the act of reading. It is through an analysis of this process that we can best see where teachers struggle, what they value, and what their practices may indicate about the state of multimodal response.

To collect information about teachers’ multimodal response processes, participants were asked to engage in verbal protocols and interviews and their classroom artifacts were collected. In Chapter II, the procedures for data collection and participant selection are explained and descriptions of the research methods are also given. Because reading is a complex, situated, and social activity, protocol data from teachers’ reading processes was analyzed using a grounded theory approach. In Chapter II the process of
applying grounded theory to generate categories and theory from the data is also
described in great detail, as are the procedures used to analyze interview and artifact data.
Chapter II provides an explicit account of the research process so that future researchers
may easily confirm, disprove, or extend the present study.

In Chapter III, the findings from a grounded theory analysis of protocol data are
presented. Several categories emerged from this analysis and each is explained using
examples from the data. These categories are divided into three main types: reader
behaviors, evaluative behaviors, and behaviors external to the response process. This
focus of the chapter, however, is on the presence and nature of evaluative behaviors,
especially the role of expectations in teachers’ reading processes. Expectations, which
emerged from a Grounded Theory analysis as the most frequent and significant category
in the corpus, govern teachers’ evaluative decisions about multimodal work and dominate
their response practices. The properties of expectations are enumerated, including their
tendency to be predominately implicit, to focus on form twice as often as content, and to
be static and de-contextualized.

The possible origins of teachers’ expectations are explored through a qualitative
analysis of teachers’ interviews and classroom artifacts in Chapter IV. Each teacher’s
unique professional trajectory is first laid out using thick description, and a thick
interpretation follows to address the possible significance of contextual factors and their
influence on teachers’ expectations and other behaviors and beliefs associated with the
response process. Finally, overall trends among participants are synthesized. It is revealed
that both teachers’ expectations and their beliefs about multimodality can be traced back
to contextual factors in their lives, especially to their graduate education, teaching history, professional experiences, and technological expertise. Gaps between teachers’ beliefs and the expectations they employ during the response process are also illuminated.

Finally, in Chapter V the results of this study are condensed and implications are pursued. It is proposed that there are dangers inherent in the gaps between teachers’ articulated beliefs about multimodality and their actual practices, which are typically static in nature and as such, undermine the democratic, creative, and situated values of multimodal pedagogy. A return to the principles of multimodal pedagogy is suggested through an emphasis on reflective practice, the interconnectedness of course components like response practices and learning goals, a closer relationship between those course components and multimodal pedagogical values, and professional development to guide teachers through these steps. Suggestions are also provided for further research to verify, refute, or build upon these results.
CHAPTER II

The Methodological Triangle: A Discussion of Method, Analysis, and Theory

In his criticism of the current state of published research in Rhetoric and Composition, Richard Haswell (2005) admonished the discipline for its “inability, as yet, to convince scholars outside the field that it is serious about facts, perhaps its inability to convince them that it is not afraid of what those facts might uncover about its favorite practices” (p. 219). In recent years, multimodality has continued to gain momentum as a contender for a “favorite practice” in the field, characterized as a necessary pedagogical approach to facilitate success for all students in an increasingly technological and global era and to make composition relevant in the influential pedagogical treatises of scholars like Kress (2003), the New London Group (2000), and Selfe (2007). However, there has been a serious lack of empirical research investigating the practice of multimodality in the classroom; in this study, the term “empirical research” is used to indicate “research that carefully describes and/or measures observable phenomena in a systematic way planned in advance of the observation” (MacNealy, 1999, p. 6). The field’s aversion to investigating pedagogical practice using empirical research is nothing new. Over a decade ago, Eric Ziolkowski (1996) observed that, “The clamor to reform teaching has been accompanied by an ever-intensifying resentment of scholarship” (p. 569). In Rhetoric and Composition, especially, research has historically been viewed in opposition
to teaching, rather than as a process that can inform and enrich teaching practice. As Mary Sue MacNealy (1999) has reported, despite vast amounts of evidence to the contrary, “Sadly, the idea that empirical research in writing has improved the teaching of composition and technical writing is often rejected” (p. 2).

In the present study, however, research and teaching were viewed as dialogic processes. Although research into teaching practices may, as Haswell has noted, generate unpleasant findings about our most cherished classroom behaviors, it is integral for the growth of pedagogy and scholarship—as well as for the growth of the discipline itself. In particular, this dissertation posed questions about teachers’ multimodal response practices, including How do teachers read their students’ multimodal work? What do they value—and where do their values come from? These questions were pursued through the triangulation of concurrent and retrospective verbal protocols, interviews, and artifact analysis. Data collected through these methods was analyzed through grounded theory and thick-description approaches to yield a data-based theory of teachers’ multimodal response processes.

Scholars like Haswell and Peter Smagorinsky (2008) have encouraged researchers to make their methods and methodologies transparent so that the path to findings is clear to outside readers. Further, Haswell has argued that researchers must describe the collection and analysis processes in great detail so that future researchers can conduct similar studies to verify, refute, or extend the research and its findings; the only way that scholarship can grow, according to Haswell, is through the “replication” and “aggregation” of research (p. 201). In this chapter, therefore, procedures for selection of
participants, materials, and methods as well as the processes used for data collection, coding, and analysis are reported with great specificity. Through the thorough discussion of methods and methodology, this dissertation acknowledges that both empirical research and explicitness about the research process are critical in advancing the field’s understanding of multimodal response and other pedagogical practices.

1.0 Participants

Participants for the study were recruited on a volunteer basis after an email was sent out to prospective participants explaining the project. The only requirement for participation was that participants were currently teaching an English course in higher education and planned to assign at least one multimodal project in that course; I explained to participants in the initial email that multimodal texts were those that integrate multiple modalities such as the linguistic, visual, aural, gestural, or spatial, and are typically mediated by computer technology. The population for the study consisted of the first eight instructors to respond. The participants were of varying levels of expertise and education, ranging from graduate assistants through tenured professors. All held a minimum of a Master’s degree in a related field and were employed in English Departments at three different Ph.D.-granting institutions in the Midwest. The classes taught by instructors in this study varied, including anything from basic writing through senior-level composition courses, and were taught in both online and physical classroom environments. The differences between participants are outlined in Table 1.
Participants in the study represent several kinds of institutions, experiences, and practices but were chosen on a volunteer basis. As such, participants may not be a representative sample because they were restricted to a particular geographic area and may be more interested, invested, or advanced in their thinking about multimodality than others since they volunteered to participate. I also had a professional relationship with most of the participants in the study prior to the project; many participants were co-workers, former teachers, and fellow students. This relationship may have affected some participants’ willingness to share information during the interview and their level of comfort during the protocol.

Table 1 | Teacher participant profile

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Institution</th>
<th>Course taught</th>
<th>Type of course</th>
<th>Highest Level of Education</th>
<th>Teaching experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anna</td>
<td>Professor (TT)</td>
<td>Institution B</td>
<td>Writing, Style, and Technology (upper-division)</td>
<td>Online</td>
<td>Ph.D. in Curriculum &amp; Instruction</td>
<td>36 years</td>
</tr>
<tr>
<td>Susan</td>
<td>Assistant Professor (NTT)</td>
<td>Institution A</td>
<td>Digital Media Studies (upper-division)</td>
<td>Face-to-face</td>
<td>M.A. in Communication</td>
<td>34 years</td>
</tr>
<tr>
<td>Marie</td>
<td>Assistant Professor (NTT)</td>
<td>Institution A</td>
<td>College Writing II</td>
<td>Face-to-face</td>
<td>M.A. in English</td>
<td>33 years</td>
</tr>
<tr>
<td>Joe</td>
<td>Assistant Professor (TT)</td>
<td>Institution A</td>
<td>First Year English Composition (stretch)</td>
<td>Face-to-face</td>
<td>Ph.D. in American Culture Studies</td>
<td>11 years</td>
</tr>
<tr>
<td>Aaron</td>
<td>Associate Professor (TT)</td>
<td>Institution C</td>
<td>Expository Writing (upper-division)</td>
<td>Online</td>
<td>Ph.D. in Rhetoric &amp; Writing</td>
<td>11 years</td>
</tr>
<tr>
<td>Leah</td>
<td>Graduate Teaching Associate</td>
<td>Institution B</td>
<td>College Writing II</td>
<td>Face-to-face</td>
<td>Ph.D. (in progress) in English</td>
<td>7 years</td>
</tr>
<tr>
<td>Sara</td>
<td>Graduate Teaching Fellow</td>
<td>Institution A</td>
<td>College Writing II</td>
<td>Face-to-face</td>
<td>Ph.D. (in progress) in Rhetoric &amp; Composition</td>
<td>4 years</td>
</tr>
<tr>
<td>Robert</td>
<td>Graduate Teaching Fellow</td>
<td>Institution A</td>
<td>Business and Professional Writing (upper-division)</td>
<td>Online</td>
<td>Ph.D. (in progress) in Rhetoric &amp; Composition</td>
<td>3 years</td>
</tr>
</tbody>
</table>
2.0 Materials

As explained in Chapter I, teacher response is fundamentally an act of reading and is also a contextual, situated activity. As a study of response, this research takes these factors and their possible influence on the reading process into account by capturing teachers’ reading processes in a setting that was as naturalistic as possible. Participants were asked to read a self-selected sample of their own students’ multimodal texts at the time when students submitted them. While the protocol process imposes some artificiality on the situation, asking teachers to read their own students’ work contributes to the authenticity of the reading process; a teachers’ reading of her own students’ work in a protocol more closely approximates her actual response practices than does asking her to read work created by another student in another course. Contextual factors like the teachers’ purpose for reading and her prior knowledge of the text or student all inform her response to that work. The materials that teachers elected to read varied widely but were consistently multimodal and mediated by computer technologies (see Table 2). Participants were instructed to read at their own pace for the duration of one hour, so the number of student projects read during the protocols varied from participant to participant and ranged anywhere from two to nine.
### Table 2 | Materials read by participants during the protocol

<table>
<thead>
<tr>
<th>Name</th>
<th>Assignment title</th>
<th>Types of student texts read during the protocol</th>
<th>Modes read during the protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron</td>
<td>“Visual Rhetoric/Comic Assignment”</td>
<td>Comics, reflective essays</td>
<td>Visual, verbal</td>
</tr>
<tr>
<td>Anna</td>
<td>“Concept in 60”</td>
<td>Videos</td>
<td>Visual, aural, verbal, spatial</td>
</tr>
<tr>
<td>Joe</td>
<td>“Collaborative Research Project and Presentation”</td>
<td>PowerPoint presentations</td>
<td>Visual, verbal</td>
</tr>
<tr>
<td>Leah</td>
<td>“Past Literacies: Literacy Narrative Assignment”</td>
<td>Oral essays</td>
<td>Aural</td>
</tr>
<tr>
<td>Marie</td>
<td>“May 4th Visitor’s Center Final Project”</td>
<td>Brochures, PowerPoint presentations</td>
<td>Visual, verbal, spatial</td>
</tr>
<tr>
<td>Robert</td>
<td>“Visual Argument”</td>
<td>Visual arguments, reflective essays</td>
<td>Visual, verbal, spatial</td>
</tr>
<tr>
<td>Sara</td>
<td>&quot;Multimodal Mini-Ethnography/Portfolio&quot;</td>
<td>PowerPoint presentations</td>
<td>Visual, verbal, spatial</td>
</tr>
<tr>
<td>Susan</td>
<td>“Progress Report”</td>
<td>PowerPoint presentations</td>
<td>Visual, verbal, aural, spatial</td>
</tr>
</tbody>
</table>

### 3.0 Procedures and instruments

The questions motivating this dissertation, *How do teachers read their students’ multimodal work? What do they value—and where do their values come from?*, were investigated with verbal protocols, interviews, and artifact analysis. The blend of verbal protocol, interview, and artifact analysis methods employed in this dissertation, what Norman Denzin (1989b) has termed methodological triangulation, is necessary to understand complex phenomena like reading, as “Each method implies a different line of action toward reality—and hence each will reveal different aspects of it” (p. 235). For instance, while protocols provide data directly related to what happens during teachers’ reading processes, interviews contribute contextual information to situate the reading process (for example, what teachers were reading, what their purposes for reading were, what they hoped students would learn from the assignment, etc.). Both kinds of data
“reveal different aspects” of the response process, and both are needed to fully understand that process. Methodological triangulation in this study, therefore, provides multiple, varying sources of data about teachers’ response practices that, when analyzed as a whole, reveal more about that process than any method can reveal alone. In this section, an overview of the procedures used to implement these methods in the present study is provided alongside a theoretical justification for each method in order to demonstrate what each has the potential to reveal about the phenomena under study.

3.1 Interviews

Prior to engaging in the protocols, participants were interviewed about their educational and professional backgrounds. Interview data provided valuable information about teachers’ perceptions of their practices as well as their beliefs about multimodality and teaching (see Appendix A for a list of initial interview questions). The majority of these interviews took place in a face-to-face setting at least one week prior to the protocol. However, due to the distance between my own home institution and some participants’ institutions, two participants’ interviews were conducted using the video communication program Skype and one interview was facilitated through Google’s instant messaging service GoogleTalk. These interviews were audiotaped for accuracy in transcription, with the exception of the GoogleTalk interview; the transcript for the GoogleTalk interview was retrieved from a chat log. I then transcribed the audiotapes.

During the interview, each participant was asked the same set of 15 structured interview questions in the interest of what Mary Brenner (2006) has termed
“comparability across informants” (p. 62) (see Appendix A). In other words, structured questions were used because the purpose of the interviews was to gather the same information from each participant. Each interview began with a broad question about how the interviewee became interested in her subject area, as Brenner has suggested starting interviews with personal questions in order to “establish a possible commonality between interviewer and informant” (p. 363). This question, therefore, allowed the informant to relax and talk about her interests and at the same time created a connection between the informant and interviewer, since both share a common interest in the subject of English. Interview questions moved from broad to more specific, starting with a focus on each participant’s education and teaching experiences and moving toward participants’ understanding of multimodality, and finally to the specific classroom context under study. All of the interview questions were open-ended and began with the phrase “tell me about.”

In this study, interviews seemed to fit somewhere in between what Andrea Fontana and James Frey (2003) have called “structured” and “unstructured” (p. 68). Interviews were “structured” in the sense that each interviewee was asked the same set of questions and I refrained from voicing my own “opinion of a respondent’s answer” (p. 69). I abstained from interjecting my own beliefs because I did not feel it was pertinent to the collection of data about participants’ own practices, and because I strove for consistency across interviews. The interviews were “unstructured,” however, in the sense that although I entered into the interview situation with structured questions, I also allowed for the kind of flexibility described by James Spradley (1979). For example,
when an interviewee said something interesting or confusing, I prodded the interviewee to tell me more about the topic. For some interviewees additional questions were therefore generated in situ around structured questions to clarify or expand on the list of structured questions. In this way, the interview was both a structured and negotiated text, according to Fontana and Frey.

Interview data was used for many purposes. First, the data was used during protocol analysis to determine which values evident in the protocol were also present in teachers’ consciousness during the interview itself. Later on in the study, a thick description of each participant’s interview data was also created (see Chapter IV). These descriptions accounted for teachers’ self-perception of their practices and their beliefs; in other words, they provided information about what teachers believed they were doing or ought to be doing in the classroom. As Julie Luftie and Gillian Roehrig (2007) have explained, “Within the last 15 years, understanding and describing teacher beliefs has become a priority for educational researchers. These personal constructs can provide an understanding of a teacher’s practice” (p. 38). The authors have articulated that educational research has provided “compelling evidence that beliefs influence practice” (p. 40). George Hillocks (1995) has also claimed that teachers’ beliefs “have a powerful effect on what and how we teach” (p. 26). In accordance, this thick description of interview data was also used to contextualize and interpret teachers’ behaviors and practices during the protocol. Interview data was obviously used to supplement the primary method of verbal protocols. It provided a different angle on the reading
phenomenon in that it focused on teachers’ self-perceptions of their behaviors rather than on observations of the behaviors themselves.

3.2 Artifact analysis

As Hodder (2000) has argued, “‘What people say’ is often very different from ‘what people do,’” and while the interview data accounted for the self-articulated portion of teachers’ theories (or ‘what people say’ they do), a material account of those practices through protocols and classroom artifacts such as assignment sheets or syllabi (‘what people do’) illuminated where practices and beliefs aligned within a particular pedagogical context (p. 705). After completion of the initial interview, therefore, I requested copies of participants’ course documents (including syllabi and handouts relevant to the assignment participants would be reading during the protocol). These documents were used in the same way as interview data: both to account for teachers’ beliefs in a descriptive analysis, and to identify evaluative criteria that teachers had established prior to the response situation.

Hodder identifies two types of artifacts: documents and records (p. 703). The artifacts collected here, which included rubrics, assignment sheets, other instructive materials for students, and course syllabi, fall into the category of records as they are essentially contracts between the teacher and student that have what Hodder calls “local uses” (p. 703). Outside of the context of the teacher’s classroom, records like syllabi and rubrics have little meaning. These artifacts must be “understood in the contexts of their conditions of production and reading” (p. 704) and should involve spoken consultation
with the people who use or create them (p. 710). Artifacts were primarily used during the protocol analysis to identify where miscommunications between students and teachers occurred. For instance, many times teachers relied on a set of criteria to evaluate student work during the protocol that never made it into the materials students had access to, like the assignment sheet or rubric. Artifacts were always read and understood within the broader context of each participants’ pedagogical context: what was revealed through their interviews and protocols about their courses, classroom conditions, students, learning goals, and so on.

3.3. Concurrent verbal protocols

Concurrent protocols functioned as the primary method in this study, as they were the most effective way to capture participants’ thoughts during the reading process. K. Anders Ericsson and Herbert Simon (1993) have defined concurrent protocols as “reports—where the cognitive processes, described as successive states of heeded information, are verbalized directly” (p. 16). Participants are typically asked to verbalize their thought process while they engage in some sort of problem-solving task, and in this case the task for teachers was reading and evaluating their students’ work. After interviews were complete and artifacts had been collected, concurrent verbal protocols were administered. In the interest of capturing the process of response in as naturalistic of a setting as possible, protocols took place during a period in which students’ texts were due and the participant was already involved in the response process. Further, participants chose the setting for their protocols, which ranged from campus offices to participants’
homes. Immediately prior to the start of the protocol, I verbally explained the method to participants and asked them to engage in a training activity to familiarize them with the method and presence of the camera. As part of this training activity, participants were asked to think aloud while first solving a simple math problem and then reading a short non-fiction passage (see Appendix B for the training activity).

Following the completion of training, participants were instructed to think aloud while reading their self-selected corpus of student multimodal texts for approximately one hour. This process was videotaped. Ericsson and Simon (1993) have suggested that the researcher remain on the periphery during the protocol for the more a researcher (and her voice) is present, the more likely it is that the participant will treat her verbalizations as social rather than as cognitive reports of her thinking. That is, participants will be more likely to “produce instead the more common social communication, explaining or describing the process to the experimenter” (p. xiv). In an effort to lessen the amount of explanatory or descriptive comments made by participants, I was not in the same room as participants during their protocols and after one hour I re-entered the room to notify them that their task was complete. At the same time, I acknowledge that the social aspects of protocols cannot possibly be eliminated. Tomomi Sasaki’s (2008) research illustrated, for instance, that participants changed their language patterns in ways that indicate sometimes they were referring to the researcher and sometimes they intended to speak only to themselves as they engaged in verbal protocols. Sasaki’s work suggests that in protocols, a “strong orientation to the listener” is observable and proves that protocols are “socially situated” events (pp. 371-372).
Many other researchers in psychology, education, and literacy have relied on verbal protocols to understand cognitive processes like writing and reading that would be difficult to discern using other methods. In Rhetoric and Composition, protocols have often been used to investigate the thought processes of student writers. For instance, in the late 1970s and early 1980s, Linda Flower and John Hayes conducted several studies that explored the cognitive aspects of the writing process using verbal protocols (Flower & Hayes, 1977, 1980, 1981a, 1981b). Based on their data, they generated a new model of the writing process that illustrated writers essentially commit three significant actions when they compose: planning, translating, and reviewing (p. 375). Flower and Hayes’ model stood in opposition to existing, “linear” models and posited that the writing process was actually recursive; further, their data suggested that writers engage in the three actions (and some related sub-activities) whenever they need to: “the logic which moves composing forward grows out of the goals which writers create as they compose” (p. 380). Clearly these findings have had important implications for how the field understands writing today as a cyclical and purposeful activity and the data they reflect could only have been collected through verbal protocols.

Stephen Witte and Roger Cherry (1994) extended Flower and Hayes’ work and used verbal protocols to study the influence of variables such as assignments and tasks on students’ writing processes. They modified Flower and Hayes’ model of composing to code their data and found that the task and assignment indeed made a difference, concluding that, “Writing generally and composing processes particularly are very much tied to situations” (p. 46). Witte and Cherry’s work is relevant because it illustrates how a
cognitive method like verbal protocols can be used to study a process like writing that is at once cognitive and social to yield results that “can be used to further our understanding of some of what ‘social context’ in writing might entail” (p. 46). In other words, Witte and Cherry’s work illustrated that social variables like tasks and assignments form a “context” for the writing process. Smagorinsky (1991) also employed verbal protocols to determine the effect of writing instruction on writing strategies and process, finding that particular types of instruction changed how student writers thought through their composing processes. More recently, David Bruce (2009) relied on concurrent and retrospective verbal protocols to capture his students’ video composition process. He used the data to produce a model of video composition which, like Flower and Hayes’ model, is recursive and consists of three major activities: visual conceptualization, visual production, and evaluation (p. 439). In studies of writers’ print-based and multimodal composition processes verbal protocols continue to be a valid method to capture information about how writers make decisions as they make them—information that would be difficult if not impossible to gather through methods other than verbal protocols.

While verbal protocols have provided foundational knowledge about the composition process, they have also been used across the disciplines to bring the strategies and behaviors readers call upon during the reading process to light in order to improve teaching and learning. The differences between expert and novice readers, in particular, has been a subject frequently investigated using verbal protocols, and research has illuminated some major differences between the strategies used by expert and non-
expert readers. Jill Edwards Olshavsky (1976), for instance, utilized verbal protocols to explore differences in reading strategies between high school students at different reading and interest levels as they processed different types of texts. Protocol data revealed that better readers relied on reading strategies on a more consistent basis than poor readers, especially when asked to process difficult or “abstract” material (p. 669). Mary Anna Lundeberg (1987) also compared the reading processes of novice and expert readers to discover more effective approaches to teaching law students how to read legal documents. The first portion of her study was an investigation of the comprehension processes of expert (law professors and lawyers practicing for two or more years) and novice student readers as they processed legal cases. She asked both types of readers to engage in a think-aloud protocol as they read a legal case and discovered that the expert readers relied on reading strategies that most novice readers did not. Overwhelmingly, the protocols illustrated that expert readers worked harder to determine the context for the legal case than novice readers, relying on specialized genre and “domain knowledge” to understand the organization and relevant information in the document (p. 417). Similarly, Christina Haas and Flower (1988) studied expert and non-expert readers engaging with a given text, discovering that, like Lundeberg’s expert panel of lawyers and professors, experienced readers engaged in what they term “rhetorical reading” strategies while inexperienced readers focused on “text-based strategies to construct their meaning” (p. 168).

Reading researchers have also implemented verbal protocols to study teachers’ processes, focusing on how they arrive at decisions about student work. Pula and Huot
(1993), for instance, conducted a study to verify and expand the work of Huot (1993) in which they investigated how teacher-raters, despite variances in their holistic scoring training, managed to use “very similar criteria” to make decisions about a set of texts (p. 237). Through analysis of concurrent and retrospective protocols, Pula and Huot identified that expert and novice raters were able to make similar decisions about the student texts because all raters belonged to what they called an “extended discourse community” (p. 257) of English teaching, which includes shared ways of thinking and behaving; similar experiences in education, professionalization, and teaching; and comparable personal backgrounds (p. 248). Building off of the work of Huot and Pula and Huot, Wolfe (1997) organized think-aloud protocols of raters as they read and scored a pool of essays written by 10th graders (p. 97); raters in Wolfe’s study either “had experience or education as writers or as writing teachers,” and exhibited different reading and rating processes based on their level of proficiency with psychometric scoring procedures (p. 97). In other words, Wolfe ascertained that “the primary difference between scorers of different levels of proficiency lies primarily in the manner in which they process information rather than in the kinds of information that they choose to process” (p. 103, emphasis added). For example, one difference in process was that less proficient raters tended to evaluate texts as they read, while more proficient raters waited until they were finished reading to evaluate student work. Wolfe’s finding runs counter to Vaughan’s (1991) earlier discovery that raters tend to vary both in how they rate and what they rate when they score student essays. In her study, Vaughan asked six raters to engage in a think-aloud protocol as they holistically scored student work and found that
“Despite their similar training, different raters focus on different essay elements and perhaps have individual approaches to reading” (p. 120). More recently, Edgington (2005) used think-aloud protocols to capture how teachers read and evaluated their own students’ work, observing that teachers’ readings were greatly impacted by their “personal beliefs and values, classroom experiences, relationships with students” (p. 141).

As these studies demonstrate, verbal protocols access portions of the writing or reading process that may be tacit—especially for skilled, expert writers or readers who have internalized most aspects of their reading processes as “normal” or “neutral”—and can provide valuable information about what occurs during the activities of reading and writing. Protocols also can reveal concepts and strategies that pass through readers’ minds as they read; this information is critical for researchers interested in how certain types of readers, such as teachers or raters, navigate and come to make decisions about texts. At times, the validity of reports of thinking generated from verbal protocols has been questioned. For instance, in their critique of Flower and Hayes, Marilyn Cooper and Michael Holzman (1983) asked how accurately verbal protocol data can represent internal processes like reading and writing: “Protocols, far from being ‘extraordinarily rich in data,’ are exceedingly impoverished sources of information on what writers are thinking about” (p. 286). The authors insisted that protocols fail to provide an accurate or complete account of cognitive processes.

While Ericsson and Simon (1993) have found that “The concurrent report reveals the sequence of information heeded by the subject without altering the cognitive process” (p. 30), researchers like James F. Stratman and Liz Hamp-Lyons (1994) have questioned
whether or not verbal protocols affect participants’ performance on the task at hand. The researchers lament the fact that in many protocol studies of literate activities like reading or writing, any investigation of the reactive potential of the think-aloud protocol method has been dismissed or attributed to participants’ “individual differences” (p. 108). In response, Stratman and Hamp-Lyons conducted a study in which writers were asked to revise a flawed sample of text, once while engaging in a think-aloud protocol and once without the protocol. They found several differences between the amounts of revision made during protocols and during normal conditions including, for instance, participants’ tendency to add more new sentences to the passage during the protocol than they added when not engaged in the protocol. Their data demonstrated that think-alouds “may systematically influence the correction of organizational-level errors, and the amount and kind of microstructural meaning-changes” (p. 108). In other words, whether the reactive potential of think-alouds was positive or negative, the think-alouds definitely impacted participants’ writing processes. The authors suggest that more studies are needed to illustrate whether or not these effects are “systematic” across populations.

James Baumann, Nancy Seifert-Kessell, and Leah Jones (1992), on the other hand, discovered the positive effects of think-aloud protocols upon students’ reading processes. In their experiment, they divided students into three different groups. In one group, students were given instruction in how to read while thinking out loud and actively tracing their understanding of a text. In the other groups, students were provided with other reading strategies. Based on analysis of students’ readings, the researchers concluded that students who had engaged in think-aloud protocols had an increased level
of awareness of how they came to understand or be perplexed by a text.

In the present study, therefore, verbal protocols are not characterized as a tool for providing an absolutely accurate picture of an internal process. Further, there exists the possibility that teachers’ reading and response processes may have been altered by the think-aloud protocol method. Like Baumann, Seifer-Kessell, and Jones’ student population, teachers may have thought more critically about their practices because they were forced to think and talk about them. Or, like Stratman and Hamp-Lyons’ participants, it is possible that teachers may have engaged in more or less of the kinds of response behaviors they would normally engage in outside of the research context. However, as Smagorinsky (1989) has asked: “Do we need to account for every mental process in order to derive helpful information about what we are studying from protocols?” (p. 469). Cooper and Holzman inadvertently illustrate the importance of being realistic about what any research method can tell a researcher. Verbal protocols may not necessarily give the researcher a comprehensive picture of what a reader is thinking as she reads, but protocols are currently the best method available to access a portion of those thoughts. And as Smagorinsky has suggested, researchers can still “derive helpful information” from data collected through verbal protocols, especially when that data is triangulated with information retrieved through other methods as in the present study.

3.4 Retrospective protocols

Upon completion of their concurrent protocols, participants engaged in a brief
retrospective protocol. Every participant was asked the same three questions:

1. What was most salient during the protocol?
2. What kinds of problems did you encounter as a reader?
3. What kinds of successes did you have as a reader?

This retrospective protocol data helped in identifying significant issues and moments in each concurrent protocol. The data also allowed me to gauge participants’ awareness of their response practices and behaviors. Because retrospective protocols were conducted immediately after the concurrent protocol, I was unable to ask participants specific questions about interesting or problematic events in their protocols. The only exception to this trend was Susan, who videotaped her protocol in her home and was asked to respond to the three questions when she was finished. Without my presence, Susan’s retrospective protocol was less than a few minutes long. An additional retrospective protocol was conducted after I had viewed Susan’s tape in which I played portions of the protocol back to Susan and asked for her comments. Due to geographical and time constraints, this kind of retrospective probing could not be conducted for other participants. All participants were asked to respond to a follow-up email that asked them how they understood “rhetoric” in relationship to their work in the classroom. Only a little over half of the participants responded to this email and their responses are referenced in later chapters.

As Ericsson and Simon (1993) have written, “In the ideal case the retrospective report is given by the subject immediately after the task is completed while much information is still in STM [short-term memory] and can be directly reported” (p. 19). Retrospective protocols may be used in place of concurrent protocols to assess
participants’ thinking process because participants are free to verbalize without the
cognitive demands of solving the problem provided by the researcher. However, Ericsson
and Simon have indicated that concurrent protocols provide the most accurate picture of
cognitive processes because they do not require participants to recall their thoughts but to
verbalize them as they occur. As a result, retrospective protocols are typically used as
they are in this dissertation: to supplement concurrent protocol data. For instance, in his
study of holistic raters’ reading processes, Huot (1993) asked participants to engage in
both concurrent and retrospective protocols. He has noted that, “Both types of protocol
procedures were used in an attempt to secure different kinds of information. Concurrent
protocols revealed what raters were concerned about as they read and rated, and
retrospective probing was employed to determine what raters thought they were
concerned about” (p. 210). Huot compared the data collected through both methods to see
how readers’ thoughts both during and after the reading process compared and to
“provide a broader picture of rater behavior and the rating process” (p. 211). Similarly, in
their extension of Huot’s study, Pula and Huot asked raters to participate in two different
retrospective protocols. They have described retrospective protocols as a kind of
“exploratory interview” (p. 240) that permits “raters to tell their own stories” about their
reading (p. 241).

4.0 Coding and analysis of protocol data

Protocol data was analyzed using a grounded theory approach (Glaser & Strauss,
1967; Strauss, 1987), as part of which I engaged in the multi-stage, recursive process of
interpretation to develop theories directly from the data. In this way, the theory that emerged was *grounded* in the data and, as Barney Glaser and Anselm Strauss (1967) have articulated, “one can be relatively sure that the theory will fit and work” (p. 3). While grounded theory is a method of analysis originally developed for use in sociological studies, increasing recognition of literacy as a social, situated practice makes grounded theory an appropriate procedure for analyzing data collected in studies of literacy as well. For instance, recent research suggests that reading is a social, rather than a purely cognitive phenomenon. Social activities such as reading are inherently “complex: Thus, they require complex grounded theory. This means conceptually dense theory that accounts for a great deal of variation in the phenomenon studied” (Strauss, p. 1). A complex web of contextual factors and other “variations” may affect the reading process, and to explore the significance of these factors, which may differ across participants, a grounded theory approach to analysis was congruous.

As a first step, the protocols were divided into T-units, what Cheryl Geisler (2004) refers to as “the smallest group of words that can make a move in language” (p. 31). Because the present study sought to understand how teachers approached the task of reading student work, dividing data into the smallest unit possible, the T-unit, was the most appropriate strategy to capture all of the behavioral nuances involved in a complex process like reading (p. 32). I then began the process of open coding of the corpus of protocol data in which I read through the data set repeatedly for several months, generating open coding memos about my initial observations of the text. Following the guidelines for open coding established by Strauss, I began by analyzing the entire corpus
of protocol data on a microscopic level and composing the first type of open coding memo, which focused on the possible significance of individual words, phrases, and T-units in connection to the entire protocol itself and to other protocols in the set, interviews, contextual documents, and the world of theory outside the protocols (see Figure 1 for a sample of the first type of open coding memo). In consonance with Strauss, in these memos I consistently posed the questions: “What is actually happening in the data? What is the basic problem(s) faced by the participants? What accounts for their basic problem or problems?” (p. 31).
**Fig. 1 | First type of open coding memo**

<table>
<thead>
<tr>
<th>Protocol data</th>
<th>Coding comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>So I think that's sort of a question of using the conventions of the genre.</td>
<td>This is the first time she mentions genre conventions in this passage, but she makes frequent mention of them throughout the rest of the protocol. Here she’s framing the problem with the text in terms of conforming to genre conventions.</td>
</tr>
<tr>
<td></td>
<td>...<em>I think that's sort of a</em>...Here’s more uncertainty about what she’s saying “I think” and “sort of” suggest hesitancy. Again, I wonder if it’s just a result of the protocol method, or if she really is having trouble figuring out what’s going on here.</td>
</tr>
<tr>
<td></td>
<td>...<em>a question of using</em>...By bringing in a verb here “using” she suggests the presence of the student (or maybe the text isn’t “using”?), but doesn’t explicitly say s/he’s struggling with “using” genre conventions.</td>
</tr>
<tr>
<td></td>
<td>...<em>using</em>...This is a striking choice of verb. This implies that she expects students to accept and apply the conventions of the genre (instead of saying something to the effect of “being aware of/acknowledging” or “challenging” or “being creative with” conventions). This seems like a pretty fixed expectation.</td>
</tr>
<tr>
<td></td>
<td>...<em>the conventions of the genre.</em> This suggests that transitions are one of the conventions of this genre.</td>
</tr>
<tr>
<td></td>
<td>...<em>genre</em>...She identifies the genre as audio narrative. Is this a well-formed genre (thinking of Kress and vL’s ideas about the flexibility and open-endedness of a lot of emerging genres)? What are its other conventions? Does she mention any except for the transitions? Why does she talk about this in terms of genre and not modalities or mediums?</td>
</tr>
<tr>
<td>Sometimes there are reasons for genre conventions here.</td>
<td>Here she speculates about the usefulness of fixed rules and structures for types of texts. In the case of this student’s text and the confusion it’s causing her, the reasons for the conventions become clear.</td>
</tr>
<tr>
<td></td>
<td>...<em>sometimes</em>...Maybe the reasons for genre conventions are sometimes clear to her, but genre conventions are always purposive: genres are socially constructed (thinking of Miller, Bawarshi).</td>
</tr>
<tr>
<td></td>
<td>...<em>genre conventions</em>...This is the second instance of this phrase in this excerpt. It suggests that the problem she’s seeing in this text probably has a lot to do with a mismatch between the student work and her expectations about the conventions of this genre (in the form of pauses as transitions).</td>
</tr>
<tr>
<td></td>
<td>...<em>here.</em> Where is here? In these kinds of texts? In the classroom setting? In the context of this student’s text?</td>
</tr>
</tbody>
</table>
As open coding gradually became more focused, formal observations were made in a second type of open coding memo (see Figure 2 for a sample of the second type of memo; examples of comparisons across protocols and significant patterns are highlighted). In these memos, what occurred in each protocol and what was unusual was synthesized. From there, I speculated about the possible significance of the protocols and their common or unique features.
Fig. 2 | Excerpt from second type of open coding memo

- In this protocol, unlike most others so far, there is rarely a moment in which she’s not evaluating (even when describing, she’s evaluating). She does not respond like a reader, but more like a teacher or an evaluator who is out to find particular criteria, not to make sense out of the text/student as a rhetor. This could be tied to her purpose for the assignment, to the fact that she teaches so many students she doesn’t have much time to evaluate, or to her normal reading style for student work.

- The major, guiding expectation seems to be that students should follow her instructions. She mostly notes how well/not features correspond to those instructions or criteria, and when they don’t she seems a little frustrated and repeats a phrase similar to: “I gave instructions for this.”
  - These criteria or expectations for effective business presentations are really about consistency to some extent – she wants the slides to be uniform, the entire set of presentations to be uniform, to conform to a set of conventions and to execute them over and over again. I’m beginning to notice that consistency is really desired by a lot of instructors – obviously Marie, but also Leah (with consistency across the set in terms of genre conventions of narrative or transitions to indicate consistency within a piece), Joe (with consistency in terms of presenting image or text and then “theorizing” about it in each slide), Anna (maybe more like a consistency of variety or an inconsistency with shot making and angles). To what extent is consistency a feature of multimodal, rather than print-based texts? How often do we search for consistency in a print-based text? What is the function of consistency in a multimodal document (my guess it to “hold it together,” to unify the many disparate elements or modalities so the reader knows it’s a unified piece. We might talk about this in a slightly different way with print texts, probably in terms of uniform tone/voice and transitions. I wonder if it’s not as much of an apparent “need” there because there’s only one mode for the reader/writer to control?)

- What makes the difference between non-expected elements that she likes (i.e., one student’s organizational pattern) v. those she dislikes (i.e., the introduction of sound effects in project 1)? Is it rhetorical (she says she dislikes sounds because they are “distracting” to her as a viewer, and that she liked the organizational pattern because it “…kinda lead me through it and instead of just having all that information on a slide change itself.”)
During open coding it was very clear that teachers valued and expected certain things from their students’ multimodal texts. In Figure 1, for instance, the instructor mentions the importance of genre conventions in two consecutive sentences, characterizing them as necessary to the student’s work. It can be inferred based on this excerpt and others from the same protocol that the teacher expected particular genre conventions to be present. I therefore chose to conduct axial coding around the emerging category of expectations while open coding continued; Strauss has identified axial coding as “analyzing revolving around the ‘axis’ of one category at a time” and has specified that axial coding should occur simultaneously with open coding (p. 32). During axial coding, memos were generated to explore the nature of expectations and the constant-comparative method was applied by examining relationships between utterances that were similarly coded as expectations and between those utterances and the rest of the data set. Strauss has defined the constant-comparative method as the process by which researchers compare “indicators (behavioral actions/events)” and assign a code to them, thereby “naming them as indicators of a class of events/behavioral actions” (p. 25). Based on the findings generated by axial and open coding and memos, the first theoretical memo was generated and expectations were productively pursued as a possible candidate for the core category (see Figure 3). The similarities and differences between indicators, which hint at the properties of the category, were explored in this memo.
Fig. 3 | Excerpt from first theoretical memo

Expectations often become apparent when there is a mismatch between what the participant expects to see in a student text and what is actually there (conditions/context).

This mismatch is often felt intuitively (indicated by phrases like “it seems” or “I feel”), “Well that doesn't seem right” (Marie). “…It doesn't seem to have a presentation or a presence” (Robert).

The mismatch may also be revealed by statements of confusion or uncertainty. “The transitions are [starts typing] confusing there” (Leah). “Does this um what is the specific relationship between these two images?” (Robert). “You know again without a context I cannot tell the location from which these pictures come” (Joe) “Alright so I need to give her a score and I'm waffling here 'cause it was such a good organization…” (Susan) What I don't get is how that connects to the guy who's carving up the couch with a butcher knife” (Anna) “…my reaction wasn't oh that's funny it was more like wow, that's too bad or it's kind of scary if you will…” (Aaron)

Expectations reveal what teachers value in multimodal texts.

- **Consistency/coherence/relationships between elements**
- **Formalistic concerns** (delivery, “shot-making,” use of animations and transitions) lead to a focus on form over content (Anna’s protocol: she overlooks the incongruity of major images/themes in favor of inventive “shot-making”; Susan’s protocol: she searches for easily identifiable formal features like animations and bulleting; Robert’s protocol: he overlooks an incongruity between images and identifies the problem as a mistake in visual appeal; Marie’s protocol: she obsesses over consistency of images without considering meaning or providing a rhetorical basis for the need for consistency)
After the initial stages of the coding process indicated that *expectations* was a productive working core category, I undertook the process of selective coding which Strauss has specified as the process of “coding *systematically* and concertedly for the core category and its relationship to other codes” (p. 33). According to Strauss, the core category should help to illuminate the major “problem” in the data, and “sums up in a pattern of behavior the substance of what is going on in the data” (p. 35). During selective coding, it became clear that the majority of evaluative decisions made during teachers’ reading processes were based around their *expectations*: much of the reading was shaped and explained by the presence of *expectations* about the text (and multimodal texts in general) or assignment. Strauss also has written that the core category ought to have “clear implications for a more general theory” (p. 36). The prevalence of *expectations*, especially *expectations* for texts and not just students, suggests *expectations* are a guiding power in teachers’ reading processes and have important implications for multimodal pedagogy.

During the selective coding process, theory memos and graphic organizers were used to unearth the properties of the core category of *expectations*. The emerging category of *expectations* and its properties were constantly compared to indicators in the data that exhibited the properties of *expectations*. It was through this constant comparative process that the category of *expectations* was “sharpened to achieve” its “best fit to the data” (p. 25). *Expectations* were discovered to be either *implicit* or *explicit*; while *explicit expectations* were values clearly observable in the teacher’s interview or contextual documents, *implicit expectations* emerged only during the reading
process itself. The types of *expectations* that were seen were also narrowed down into subcategories. *Explicit expectations* were of four types: *evidential, formal, ideational,* and *rhetorical* (see Table 5); *implicit expectations* were of five types: *aesthetic, formal, ideational, rhetorical,* and *technological* (see Table 4). In addition to *expectations*, several other main categories were generated to classify the reader’s including *comparison, contextual information, description, meta-commentary, overall assessment,* and *reader reaction* (see Table 3). Theoretical saturation, the point at which no new properties could be discerned and the code of *expectations* had been thoroughly refined, was reached after several months. Definitions and attributes of other main categories were similarly derived. Main categories were then assigned to every T-unit in the data and subcategories were given to T-units that had been labeled as *expectations*. Based on this round of coding, I consulted with outside raters to verify the clarity of the coding scheme. Using readers’ feedback and the continued selective coding process, the coding scheme was further modified in significant ways.

### 5.0 Reliability and the evolution of the coding scheme

Strauss has written that “The researcher’s will not be the only possible interpretation of the data (only God’s interpretations can make the claim of ‘full completeness’), but it will be plausible, useful, and allow its own further elaboration and verification” (p. 11). Qualitative researchers approach the task of “verifying” their data analysis in a wide variety of ways. For instance, David Armstrong, Ann Gosling, John Weinman, and Theresa Marteau (1997) report that many continue to defend the place of
traditional notions of reliability (such as inter-rater reliability) in qualitative research (Mays & Pope, 1995); these more historic notions of reliability are typically borrowed from quantitative research. Yet, some qualitative researchers have sought out alternatives (Guba & Lincoln, 1981; Hammersely, 1991; Morse, Barrett, Mayan, Olson, & Spiers, 2002) and, in many cases, abandoned the notion of reliability altogether (Altheide & Johnson, 1998; Leininger, 1994; Morse, 1994).

Despite the difficulties qualitative researchers encounter in verifying their data, reliability remains one of the most viable options for researchers interested in demonstrating the strength of their analyses. Janice Morse, Michael Barrett, Maria Mayan, Karin Olson, and Jude Spiers (1997) have provided a compelling argument for the role of reliability in qualitative research, contending that while reliability is integral, it has been theorized about in ways that contradict the very nature of the qualitative research process. They have explained that “qualitative research is iterative rather than linear, so that a good qualitative researcher moves back and forth between design and implementation to ensure congruence” (p. 10). Although qualitative analysis involves the recursive process of generating and modifying a coding scheme, traditional forms of reliability testing such as inter-rater reliability typically occur during the concluding phase of research to verify or provide a final check of the reliability of the coding scheme. Compelled to demonstrate reliability in this way, qualitative scientists are inclined “to focus on the tangible outcomes of the research (which can be cited at the end of a study) rather than demonstrating how verification strategies were used to shape and direct the research during its development” (pp. 8-9). Morse et al. claim that while
traditional standards of reliability might help researchers to “evaluate” their work, they cannot “ensure” the “rigor” of that work (p. 9). Instead, they propose that reliability is actually achieved by the researcher during the systematic qualitative research process itself. They describe several aspects of qualitative research that ensure reliability, including “investigator responsiveness,” “methodological coherence,” an “appropriate sample,” synchronous coding and collection, and a theoretically-minded approach to analysis (pp. 11-13); these criteria clearly reflect principles of grounded theory.

In consonance with Morse et al.’s theory of reliability as an indication of rigor that emerges throughout the qualitative inquiry process, the present study can be considered reliable for two reasons. First, a grounded theory approach to analysis was employed from the beginning to end of the research process. Second, I revised the coding scheme several times based on studies of correlation and informal conversations with outside readers. As Morse et al. contend, “We need to refocus our agenda for ensuring rigor and place responsibility within the investigator rather than external judges of the completed product. We need to return to recognizing and trusting the strategies within qualitative inquiry that ensure rigor” (p. 15). In other words, this study shifts the emphasis on reliability to how it is achieved during—not after—the research process. Reliability functioned as an active concern that helped to shape the direction of the research.

Although not expressly discussed in Strauss or Glaser and Strauss’ conceptions of grounded theory, two components at the beginning of the qualitative research process that ensure reliability are what Morse et al. identify as “methodological congruence” or a fit
between research questions and research methods, and an appropriate sample (p. 12). The questions posed in this study, *How do teachers read their students’ multimodal work? What do they value—and where do their values come from?*, require an investigation of teachers’ reading practices which can only be accessed as they occur using think-aloud protocol as a method. Further, because teachers’ values might not be explicit, it was necessary to identify teachers’ beliefs and philosophies of teaching, learning, and multimodality. The most obvious strategy for collecting this information was an interview. Since these questions involved a response to course work, the collection of documents explaining the assignment (including rubrics) and course policies to students was also necessary. The selection of methods in this study was guided by an interest in addressing the research questions in the best way possible. Additionally, participants in this study represent teachers with a variety of education and teaching experience who are employed at a number of institutions and work within different writing programs. The differences between participants were purposeful, as this study sought to collect “sufficient data to account for all aspects of the phenomenon” (p. 12).

Both Morse et al. and Strauss insist that qualitative researchers must be flexible and intuitive. Analysis and theory development are *grounded* in the data, making it “essential that the investigator remain open, use sensitivity, creativity and insight” (Morse et al., p. 11). During the open and axial coding processes in this study, I carefully recorded all possible and emerging ideas about the significance of the protocol data in coding memos over a time period of several months. I relied on protocol data as well as my background knowledge in pedagogy, multimodality, and assessment to identify the
central problems in the corpus and to consistently develop theories about it; this is what Glaser and Strauss term “theoretical sensitivity,” or the researcher’s “ability to have theoretical insight into his area of research, combined with an ability to make something of his insights” (p. 46). For example, several months into the coding process, expectations emerged as a potential category or central problem in the corpus. I drew on my knowledge about the role of expectations in the response process and my analysis of the data, which revealed that expectations were operating in unanticipated ways, as guiding forces in participants’ response processes, limiting to a certain extent what they were able to observe in their students’ work. As Smagorinsky (2008) has written, the labels a researcher assigns to the data are unique to the researcher: “codes are not static or hegemonic but rather serve to explicate the stance and interpretive approach that the researcher brings to the data” (p. 399). Although theoretical sensitivity might be interpreted as subjectivity, Armstrong et al. (1997) point out that "subjectivity does not necessarily mean singularity" because typically researchers' views are "socially patterned" (p. 605). That is, a researcher's theories about the data are social in the sense that they stem from public bodies of knowledge that are collectively constructed.

After spending over six months analyzing the data using a grounded theory lens, the analysis had reached theoretical saturation and I had developed a working core category and sub-categories. Three outside readers, all of whom were doctoral students in Rhetoric and Composition, were consulted to help improve the clarity and conciseness of the coding scheme. Reader One was given half of Leah’s protocol (74 T-units) and contextual documents for Leah’s course (copies of the initial interview, syllabus, and
assignment sheet); the protocol sample was not randomized because of the important role of context in understanding the reading process. Reader One and I discussed the coding scheme for over an hour and Reader One was then asked to apply that scheme to a set of five sample protocol comments. Once the training was complete, Reader One coded the protocol excerpt using the main categories and subcategories (see Tables 3, 4, and 5).
### Table 3 | Main categories for reliability consultation with Reader One

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Comparison</strong></td>
<td>comments that compare students to other students, or the particular text to other texts</td>
<td>“I think she might have actually been the first person who puts her name on the PowerPoint.”</td>
</tr>
<tr>
<td><strong>Contextual information</strong></td>
<td>comments about the context (classroom, student or teacher’s life, etc.) in which the text appears</td>
<td>“Alright, Kendall...I think she had sound with hers.”</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>comments in which the teacher describes what she is seeing, hearing, or reading.</td>
<td>“Alright these are just images.”</td>
</tr>
<tr>
<td><strong>Explicit expectations</strong></td>
<td>comments that evince features that teachers want to observe or experience in their students’ work that are readily observable in the contextual materials (interviews, syllabi, assignments, course documents, etc.) and also appear in the protocol</td>
<td>“Good use of putting the picture actually up of what he's talking about.” (Connection between the topic and images and other artifacts explicitly addressed in contextual materials.)</td>
</tr>
<tr>
<td><strong>Implicit expectations</strong></td>
<td>comments that evince features that teachers want to observe or experience in their students’ work that are not observable in contextual materials (interviews, syllabi, assignments, other course documents, etc.), but instead emerge during the protocol</td>
<td>“Not so sure if the animations really working with the other images that she has going on here.” (Relationships between elements were not explicitly addressed in contextual materials.)</td>
</tr>
<tr>
<td><strong>Meta-commentary</strong></td>
<td>articulations made by the reader that either explain or describe his or her process</td>
<td>“Oh he has the let's see if I can find his website.”</td>
</tr>
<tr>
<td><strong>Overall assessment</strong></td>
<td>vague evaluative comments about the text</td>
<td>“Good work, though.”</td>
</tr>
<tr>
<td><strong>Reader reaction</strong></td>
<td>non-evaluative comments that evince teachers’ behaviors as readers (including constructing inferences about a text, asking questions, etc.)</td>
<td>“These must be the sororities first.”</td>
</tr>
<tr>
<td>Subcategory</td>
<td>Definition</td>
<td>Example</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>expectations marked by emotion (indicated by phrases like &quot;I like this,&quot; or &quot;This is cool&quot;) to elements of the text and/or comments about how those elements contribute to or detract from the text’s &quot;beauty,&quot; &quot;creativity,&quot; or from the individual reader's own enjoyment.</td>
<td>“I still love these images of Jillian v. whoever this is, ‘From fat to fit.’”</td>
</tr>
<tr>
<td>Formal</td>
<td>revealed in comments on the presence or absence of formal elements or formal conventions (for example, placement or relationship between modes, citations, transitions, bullet points, colors, etc.), without concern for how they are rhetorical or aesthetic.</td>
<td>“Good consistency with the slide colors and font choices.”</td>
</tr>
<tr>
<td>Rhetorical</td>
<td>manifested in comments about how the text, its elements (or relationship between elements), and/or its form convey a message or appeal to an audience in purposeful ways (ethos, pathos, logos, etc.).</td>
<td>“what do you think your PowerPoint I'm going to go with how do you think people would read it instead?”</td>
</tr>
<tr>
<td>Technological</td>
<td>revealed in comments about the students' use(s) of a technology, without reference to how the technology contributes to the text in aesthetic or rhetorical ways.</td>
<td>“Videos aren't coming through.”</td>
</tr>
<tr>
<td>Ideational</td>
<td>manifested in comments the idea(s) or content in the text for the sake of the idea or content itself, not about the idea/content's rhetorical or aesthetic function(s).</td>
<td>“Gave good overview of what you learned about the about the major and program as a whole.”</td>
</tr>
</tbody>
</table>
Table 5 | Explicit expectation subcategories for reliability consultation with Reader One

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evidential</td>
<td>emerge in comments about the inclusion or quality of expected external evidence (e.g.: secondary or primary research [print or images, etc.] required by the assignment), without reference to that evidence's rhetorical function(s).</td>
<td>“I'm pretty sure these are coming from [unintelligible :02] I'm not 100 percent sure.”</td>
</tr>
<tr>
<td>Formal</td>
<td>revealed in comments on the presence or absence of formal elements or formal conventions (for example, placement or relationship between modes, citations, transitions, bullet points, colors, etc.), without concern for how they are rhetorical or aesthetic.</td>
<td>“Good consistency with the slide colors and font choices.”</td>
</tr>
<tr>
<td>Rhetorical</td>
<td>manifested in comments about how the text, its elements (or relationship between elements), and/or its form convey a message or appeal to an audience in purposeful ways (ethos, pathos, logos, etc.).</td>
<td>“What do you think your PowerPoint I'm going to go with how do you think people would read it instead?”</td>
</tr>
<tr>
<td>Ideational</td>
<td>manifested in comments the idea(s) or content in the text for the sake of the idea or content itself, not about the idea/content's rhetorical or aesthetic function(s).</td>
<td>“Gave good overview of what you learned about the about the major and program as a whole.”</td>
</tr>
</tbody>
</table>

The correlation between my own and Reader One’s labeling of main categories was 78 percent (for only the T-units coded implicit or explicit expectations, the agreement was slightly higher at 86 percent) and 42 percent for subcategories (see Table 6 for a summary of researcher/reader correlation). We engaged in substantial dialogue about our disagreements, and I returned to the selective coding process in order to refine the categories using Reader One’s suggestions.
### Table 6 | Coding correlation between the researcher and outside readers

<table>
<thead>
<tr>
<th>Reader/Round</th>
<th>Protocol/ T- Units</th>
<th>Main Categories</th>
<th>Sub-categories</th>
<th>Dynamic/Static</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reader 1/Round 1</td>
<td>Leah/74</td>
<td>78 percent</td>
<td>42 percent</td>
<td>n/a</td>
</tr>
<tr>
<td>Reader 1/Round 2</td>
<td>Leah/74</td>
<td>77 percent</td>
<td>63 percent</td>
<td>41 percent</td>
</tr>
<tr>
<td>Reader 2/Round 1</td>
<td>Susan/124</td>
<td>77 percent</td>
<td>90 percent</td>
<td>45 percent</td>
</tr>
<tr>
<td>Reader 3/Round 1</td>
<td>Susan/139</td>
<td>73 percent</td>
<td>85 percent</td>
<td>68 percent</td>
</tr>
</tbody>
</table>

Reader One suggested that there was some overlap between the main categories and that the definitions provided did not differentiate between the categories clearly. To address this issue, I returned to the data and compared data points that had been assigned the same main category. On the basis of the data and Reader One’s commendation, the main category of *comparison* was combined with *contextual information* because in order to compare student texts, teachers were mentioning contextual information about those texts and students. Comparison was also used to help contextualize their reading. The main category of *description* was transformed into a new category called *extra-response* information, which accounted for all utterances that were not important to teachers’ meaning- or decision-making processes, including descriptions of the text. The definitions of many main categories were also revised. Reader One expressed difficulty discriminating *meta-commentary* from *description*; since *description* had been collapsed with *extra-response*, I added to the definition of *meta-commentary*, specifying that talk was focused around the response process only. The final version of the coding scheme, presented in Table 7, contains the main categories generated or revised at this stage. However, *personal reaction (student)* and *personal reaction (text)* were not added until after all reliability consultations were complete and the researcher was in the final stages.
of selective coding. Based on a reading of Wolfe (1997), I noticed in some of my final
passes through the data that T-units previously coded as reader reaction or contextual
information seemed to be better explained by these new categories.
<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contextual information</td>
<td>Comments about the context (classroom, student or teacher’s life, previously read or assessed student work, etc.) in which the text appears</td>
<td>“Oh that's right, she talked about that in her presentation.”</td>
</tr>
<tr>
<td>Explicit expectations*</td>
<td>Comments that evince features that teachers want to observe or experience in their students' work that are readily observable in the contextual materials and also appear in the protocol</td>
<td>“And I wanna see how the sequences or examples or shots that she's or he's picked really do contribute to that concept.”</td>
</tr>
<tr>
<td>Extra-response information</td>
<td>Comments that describe the text and/or the reader’s actions and are irrelevant to the process of understanding or assigning value to the text</td>
<td>“Alright I'm gonna back to this I wanna go and get some more coffee first okay.”</td>
</tr>
<tr>
<td>Implicit expectations*</td>
<td>Comments that evince features that teachers want to observe or experience in their students’ work that are not observable in contextual materials, but instead emerge during the protocol</td>
<td>“Um, avoid um repeated shots unless there is a good reason, reason for the repetition and uh it works uh to good effect for your rhetorical purpose.”</td>
</tr>
<tr>
<td>Meta-commentary</td>
<td>Articulations made by the reader that either explain or describe his or her response process</td>
<td>“Particularly, [stops writing and consults the video] here I want to give him some um specific feedback um the first uh the first shot of cars runs from there.”</td>
</tr>
<tr>
<td>Overall assessment</td>
<td>Vague evaluative comments about the text or its elements</td>
<td>“Good work, though.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Oh my God that was so bad.”</td>
</tr>
<tr>
<td>Personal reaction (student)</td>
<td>Comments that express a personal connection or reaction specific to the student-author</td>
<td>“Alright uh [reads from student text] oh geez oh man that answers some questions about her work in the class that's for sure.”</td>
</tr>
<tr>
<td>Personal reaction (text)</td>
<td>Comments that express the reader’s personal connection to the content of the text</td>
<td>“Alright okay, [reads from student text] ooh geez oh my goodness based on my experiences yikes I don't even really know…”</td>
</tr>
<tr>
<td>Reader reaction</td>
<td>Comments that evince teachers’ behaviors as readers trying to make sense of the text without assigning value to it (including constructing inferences about a text, making projections, asking questions, etc.)</td>
<td>“These must be the sororities first.”</td>
</tr>
</tbody>
</table>

*Explicit and implicit expectations are of two types or subcategories*
One of Reader One’s greatest obstacles involved separating formal and rhetorical subcategories for expectations (for instance, the rater argued that features like color initially seemed formal, but the use of color is potentially rhetorical if it is thought about in terms of a student’s choice of a particular color); definitions and examples of the early subcategories of “formal” and “rhetorical” can be found in Tables 4 and 5. Because any formal feature can be rhetorical, and because what seems like a rhetorical feature can be evaluated based on its mere presence or formal properties, I set out to find a way to account for this coding ambiguity by returning to the selective coding process. Upon another examination of the data to eliminate confusion over rhetorical, aesthetic, and formal features (all of which caused similar controversy with Reader One), the expectations subcategories were collapsed into two new, more straight-forward subcategories: content (what is said) and form (how something is said or put together). While Wysocki (2001) and others have cautioned that form and content are actually inextricably bound up together in any text, the selective coding process revealed that participants were not often reading in ways that recognized, appreciated, or evaluated this interplay. In many protocol passages, participants assigned value to content or form with no regard for it relationship to the rhetorical context.

Based on Reader One’s suggestions and on preliminary selective coding that revealed form and content as possible subcategories of expectations, I engaged in selective coding of at least half of the data in the most consistent and straight-forward protocols (Susan and Robert) and three more obtuse protocols, in which participants’
behavioral patterns were less clear and consistent (Leah, Anna, and Marie). As I coded, I modified the dimensions of the new subcategories to reflect the complexities found in each protocol. Based on this round of coding, four new subcategories emerged:

1. **Dynamic content expectations**: those that have to do with content being related to meaning, effect, and/or form

2. **Static content expectations**: those that have to do with content not being related to these things; instead, content may be pleasing and interesting but not purposeful, or it may be conventional

3. **Dynamic formal expectations**: those that have do with formal elements of a text being related to meaning, effect, and/or content; form is contextualized and formal choices may be assigned value in terms of their “fit” with the context (audience, purpose, etc.)

4. **Static formal expectations**: those that have to do with expectations for formal elements that are not related to meaning, content, and/or effect; instead, they may be conventional or they may be interesting and pleasing but are not purposeful

Application of these subcategories proved problematic in further selective coding, in which some expectations were not clearly either static or dynamic, but somewhere in between. To account for nuances, two levels of subcategories for expectations were created. In the first, expectations were coded either as content, form, or technological (see Table 8). In the second stage, I applied a static and dynamic scale, which used a numerical value of one through four to indicate the degree to which any form or content
expected exhibited static or dynamic beliefs about texts. Definitions and examples for each number were provided. The static and dynamic scale was used as a third measure of coding for any utterance labeled as an expectation.

**Table 8** | Sub-categories, definitions, and examples

<table>
<thead>
<tr>
<th>Sub-category</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form*</td>
<td>Expectations for how something is said in a text, or how that text has been constructed</td>
<td>“Bulleted points are not animated to bring them on one at a time.”</td>
</tr>
<tr>
<td>Content*</td>
<td>Expectations for what is said in a text</td>
<td>“I wanna see if I get a sense of the concept that the student is trying to work with.”</td>
</tr>
<tr>
<td>Technological*</td>
<td>Expectations for the use of technology</td>
<td>“He just he's holding the audio recorder probably too close to his mouth because there's a lot of feedback.”</td>
</tr>
</tbody>
</table>

* Implicit and explicit expectations are further ranked on a scale of 1-5 in terms of their static or dynamic qualities

After significant revisions to the main and sub-categories and their definitions, I returned to Reader One and asked her to re-code the same data set using the modified scheme to see if any improvement in clarity had been made. Correlation improved for subcategories (up from 42 to 63 percent), but we disagreed frequently on the dynamic/static rating. Further conversation with Reader One revealed that asking an outside rater who was relatively unfamiliar with the context of the corpus and the coding scheme to code the sample in three different ways all at once was creating cognitive overload. I decided to consult a second outside reader, providing her with half of a different protocol and set of contextual materials, this time for the participant Susan, whose protocol was more straightforward and consistent than the protocol Reader One
had coded. Reader Two was trained in a similar way as Reader One. I reviewed the coding scheme with the reader, answered her questions, and coded a small sample taken from another protocol with the reader. The coding process was also broken down into stages to avoid overwhelming the reader. First, Reader Two was asked to code all T-units with a main category. After this stage was completed, the rater was asked to code only T-units she had labeled as *expectations* with a subcategory of either *content, form, or technological*. Finally, all *expectations* were labeled a last time with a numerical value of one through four, depending on the degree to which the rater felt the expectation reflected a *dynamic* or *static* understanding of multimodality. With Reader Two, correlation for main categories remained the same (77 percent), but sub-categories improved to 90 percent correlation.

Troubled that the *dynamic/static scale* was still not clear to outside readers (the *dynamic/static scale* correlation with Reader Two was 45 percent, but there was 66 percent correlation within one number), I decided to modify the *dynamic/static scale* to include the numbers one through five and removed definitions for all numbers except those at each extreme so that it functioned more like a sliding scale (see Figure 4). The expertise of one final reader was consulted. Reader Three and I coded 15 of the 139 total T-units in Susan’s protocol *together* as part of the training process and I explained the *dynamic/static ratings* as a sliding scale, rather than as each numerical value having a specific definition. The coding process was broken down into three parts, as it was with Reader Two. While correlation for main categories was down a few percentage points
with Reader Three (73 percent), the dynamic/static scale correlation improved to 68 percent (97 percent agreement within one number).
During the correlation process, which took place after the core categories had been identified, I was forced to articulate the coding scheme to others and, in the process, came to realize that what Geisler says about the importance of involving other readers in the reliability process is true: “analysis is a rhetorical act of persuasion” (p. 75). Outside readers ought to be involved in discussions of reliability not to evaluate or prove that a coding scheme is valid or replicable, but to afford qualitative researchers an opportunity to explain, defend, and revise a system of analysis. The resulting coding scheme may not be “reliable” in the traditional, quantitative sense of the word (i.e., consistent or replicable among raters outside the research context), but it is reliable in the sense that its lucidity has been tested with knowledgeable readers who have shown it to be compelling to an audience wider than the researcher herself (Geisler).
6.0 Analysis of interview and artifact data

Early on in the study during the coding process, I frequently consulted teachers’ artifacts and interviews in order to determine whether or not participants were aware of the expectations present in their protocols before the protocol occurred. This information was used to differentiate between explicit and implicit expectations during the coding process: expectations that were present in both the protocol and the interviews or artifacts were explicit, while those present only in the protocol were coded implicit. While these expectations did not have to be present verbatim in contextual documents to be considered explicit, they did have to share the same level of specificity. For instance, Marie mentioned in her interview that she expected “consistent” application of grammatical rules. In her protocol, consistency was a dominant expectation, but for the most part, Marie used consistency to refer to sameness or repetition of the design (colors, fonts, images, etc.) and not grammar. Although she mentioned the term “consistent” in the interview, because she used it to refer to textual elements and not to visual design, when she used consistency to refer to visual elements of the text it was considered an implicit expectation. Additionally, in her rubric, Marie mentioned that she expected “coherence” and “unity” in the text, but because she did not specify how that was achieved, it was not interpreted to indicate consistency. While Marie hints at the importance of consistency in her interviews and artifacts, because she does not mention that consistency applies specifically to visual design as she does in the protocol, consistency remains an implicit expectation. While it is entirely possible that Marie may have mentioned consistency of visual design during her other interactions with students.
in their online course platform, these exchanges were not part of the current corpus so this information was not be hypothesized when considering the *implicit* or *explicit* nature of *expectations*.

When the coding process was complete and the protocol data had undergone initial analysis, interview and artifact data was analyzed using thick description in order to provide a context for understanding the behaviors present in teachers’ response practices. Since Clifford Geertz (1973) applied the term “thick description” in terms of validation in ethnographic research, thick description has figured prominently into ethnography; in this methodological tradition, thick description is often used to indicate the process of writing about a social phenomenon within a particular context. However, as Joseph Ponterotto (1995) has reported, researchers in many fields have used thick description as part of other kinds of “inquiry approaches (e.g., phenomenology, grounded theory, case study)” outside of ethnography (p. 546). He has summarized how thick description can be used to provide contextual information about participants that may help readers and researchers better understand the phenomenon under study. Ponterotto’s concept of “thick description” is closer to what Denzin (1989a) has called “contextualization,” or the process of situating “the phenomenon in the personal biographies and social environments of the person being studied. It isolates the meaning of the phenomenon for them” (p. 79). Contextualizing is one stage of the interpretive process, and involves moving the data back into “the natural social world” in which it originated to discover how that world plays a role in the phenomenon being studied (p. 79). The process of contextualizing involves “presenting personal experience stories and
self-stories” from participants that help to illustrate how they understand aspects of the phenomenon, or how their lived experiences may have influenced the role of the phenomenon in their lives (p. 79). In its final stages, contextualization involves pulling participants’ experiences and influences together to rearticulate properties of the phenomenon under study (p. 79).

“Thick description,” then, is implemented in this study as an analytic technique that provides contextual information about research participants in order to better understand the behaviors exhibited by each participant, as well as the influence of each participant’s unique context upon that process. For instance, thick description reveals teachers’ beliefs about multimodality, their intentions for responding to student work, as well as information about the assignment being responded to. By placing each protocol within a thick description of each participants’ context, the researcher was able to make statements about what she believes participants were doing and why. As Ponterotto suggests, thick description may involve combining “participants’ lived experiences with the researcher’s interpretations of these experiences” (p. 547).

Denzin has also written that thick description should not contain “intrusive” interpretation, so only after the thick description was complete was each teacher’s pedagogical approach analyzed in light of the protocol data. This is not to say that the thick description itself is free from interpretation. As Denzin astutely notes, “Writing is an interpretive act,” and thick descriptions are only essentially “interpretations of interpretations” (p. 98). In other words, teachers’ self-reports in interviews and artifacts are their own interpretations of their practice, and the ways in which this information has
been arranged, including rhetorical choices about what information to include and what to privilege in the construction of Chapter IV, are also acts of interpretation.

7.0 Conclusion

In this chapter, the justifications and procedures for methods and analysis in this study were explored and made transparent to reveal the evolution of the results and to ensure that future researchers can replicate this study to validate, expand on, or disprove the findings. Implicit in this discussion are the larger theoretical assumptions that Smagorinsky (2008) has contended motivate all research. For instance, a study of the reading process that relies solely on verbal protocols as the source of data emphasizes a view of literacy as an isolated cognitive activity. In this study, however, interviews and artifact analysis were chosen as secondary and tertiary methods to contextualize protocol data because the underlying supposition was that literate practice is socially situated activity; that is, any literate act (such as reading) is simultaneously individual and social in that the individual carries out the act but is influenced by a myriad of social factors (for instance, the culture that the individual was raised in, her educational experiences, her motivations as a reader in an institutional setting, etc.). As such, triangulation was required to capture social and contextual facets of the reading process, such as the reader’s personal history with text or her goals for the reading situation. Analytic approaches were also informed by the view of literacy as situated practice. An analysis of interviews and artifacts using thick description and interpretation permitted an exploration of each participant’s unique context and provided a context for protocol data. Further, a grounded theory analysis is typically reserved for studies of complex social behaviors and the choice to analyze protocol data in this way also reveals the assumption
that reading and response are complex, social activities. Smagorinsky has also written that “the theoretical apparatus that motivates the study is realized in the way that the data are analyzed and then organized for presentation” (p. 308). A theory of reading and response as social activities therefore also permeates results and implications in the chapters that follow.
CHAPTER III

Findings from an Analysis of Protocol Data of Teachers’ Multimodal Response Processes

In her campus office at Institution B, a large Midwest research university, Anna sits down to respond to her students’ multimodal projects. A tenure-track (TT) professor with over thirty years of experience in Rhetoric and Composition, Anna is teaching a face-to-face section of the upper-division course Digital Media Studies. It is week five in the quarter, and her students have just turned in 60-second conceptual videos to her on DVD. Students have been conducting critiques of the videos in class, so this will not be the first time that Anna sees or responds to these projects—but it will be the first time she reads them alone, writes her students a response, and assigns them a grade. A few weeks prior, Anna informed me in an interview over Skype that, “When I give an assignment I generally identify for students what I'm gonna grade that assignment on. So I identify the criteria that we're gonna use for, that I'm going to use for, evaluating the uh assignment. And um often that has a rhetorical basis” (264-267). Anna has carefully laid out the criteria for the videos in her assignment handout for students, and before she begins reading, she places the assignment sheet in front of her and orally reminds herself of the criteria for which she plans to look.

As she reads through her students’ videos, Anna engages in several different kinds of behaviors. At times, she evaluates student work with the criteria from her
assignment sheet in mind. However, more frequently she participates in evaluative behaviors that are based in an implicit set of values, such as creativity and the ability to select inventive shots, that were not apparent until she began reading: “Uh very creative. Creative choice, choice. Um, uh, I also love some of your shots” (104-105). To help inform her evaluations, Anna also contextualizes each text by thinking through what she already knows about previous versions of the videos and about students’ abilities and life circumstances. There are other occasions in the protocol in which Anna refrains from evaluating her students’ work and immerses herself in the students’ ideas as a reader, as well as occasions in which she speaks directly to me, the researcher, about what she is doing. A unique combination of these behaviors comprises Anna’s multimodal response process.

As explained in Chapter II, a grounded theory analysis of the protocol data led to the generation of nine main categories that account for the different behaviors that participants like Anna engaged in as they read student work. In the first section of this chapter, these nine categories are grouped into three larger clusters that reflect their purposes: evaluative, non-evaluative, or extraneous to the response process. The frequency of these behaviors across protocols is also explored and trends are identified. It is demonstrated that, collectively, the most regularly occurring types of behaviors are evaluative and include the categories of implicit and explicit expectations and overall assessment. In the discussion section of this chapter, the characteristics of teachers’ multimodal response processes are elucidated on the basis of these findings.
1.0 Response behavior clusters: Evaluative, non-evaluative, and extraneous

Nine main categories were used to code teachers’ response behaviors in the protocols, and in this chapter these behaviors are grouped based upon their purpose in the response process as evaluative, non-evaluative, or extraneous. In Table 9, the frequency of each of these behaviors is reported, and the three behavioral groupings are represented by a different color; blue denotes evaluative behaviors, green non-evaluative behaviors, and yellow extraneous behaviors. Most frequent in the protocol data are evaluative behaviors, which account for 49 percent of teachers’ reading practices. Evaluative behaviors include both implicit and explicit expectations—the first and third most frequently occurring categories among participants, respectively—and the category of overall assessment. These three categories are classified as evaluative behaviors in this report of findings because they denote readers’ judgments about their students’ texts. The second cluster of behaviors is labeled non-evaluative and includes four categories: reader reaction, contextual information, personal reaction (text), and personal reaction (student). These categories are non-evaluative in that they indicate that teachers are involved in reading behaviors that allow them to connect to or make sense of student work without passing judgment. When combined, these four non-evaluative behaviors represent 26 percent of the protocol corpus. Finally, the third grouping of behaviors are those extraneous to the response process and include the categories of extra-response information and meta-commentary. These categories signify that teachers were engaged in behaviors that did not explicitly relate to their response processes, such as justifying or
describing what they were doing to me, the researcher. This final cluster accounts for 25 percent of the protocol data.
<table>
<thead>
<tr>
<th>Category</th>
<th>Aaron</th>
<th>Anna</th>
<th>Joe</th>
<th>Leah</th>
<th>Marie</th>
<th>Robert</th>
<th>Sara</th>
<th>Susan</th>
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<td>0</td>
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<td>3</td>
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<td>7</td>
<td>3</td>
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<td>14</td>
<td>9</td>
<td>12</td>
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<tr>
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<td>1</td>
<td>0</td>
<td>41</td>
<td>20</td>
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</tr>
<tr>
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<td>5</td>
<td>11</td>
<td>11</td>
<td>0</td>
<td>9</td>
<td>37</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
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<td>28</td>
<td>14</td>
<td>6</td>
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<td>6</td>
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<td>17</td>
<td>141</td>
<td>111</td>
<td>67</td>
<td>355</td>
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</tbody>
</table>

Yellow = Experiential Behaviors
Green = Non-Evaluable Behaviors
Blue = Evaluative Behaviors
2.0 Reading to evaluate through expectations and overall assessments

Three of the main categories, explicit expectations, implicit expectations, and overall assessment, denoted that participants were evaluating their students’ work. In this section, each of these three evaluative behaviors is described and examples are provided from the data set. Further, the results of the sub-coding process for both types of expectations are also reported. The most significant finding from the coding and analytic process of protocol data is that expectations, both implicit and explicit, are collectively the most frequently occurring categories in the corpus and appear to play an important role in teachers’ evaluative response processes.

2.1 Implicit expectations

The majority of the time, participants in this study did not appear to be aware of what they expected from student multimodal work before they went into the reading situation. Prior to her protocol, for instance, Leah talked about her expectations for students’ aural essays in her initial interview, revealing that she was “hoping they start thinking a bit about the value of telling their own stories and the difference written language makes vs. oral” (276-279). In her assignment sheet for students, she specified only that she expected they would tell a story about an experience with literacy and record it. Early in her protocol, however, it became clear that Leah actually expected many things from her students’ multimodal projects as she read, very few of which had been addressed in her interview or assignment sheet. For example, as she read the first project, she noted how the student’s voice had “more authority” as he got further into his
narrative (5, 6). She also praised the “tone” that he developed (9). In the text that followed, she also applauded the sound that the student created: “She’s doing a great job of using um the medium of using her voice” (37). In the third project, however, she found the student’s voice ineffective: “So his tone is um a little awkward. It’s almost like, seems a little resistant” (68). While Leah did not express expectations for student voice or tone before she entered into the protocol, she obviously expected the projects to sound a particular way; these expectations for the sound of the project emerge during the reading process, as she encountered student work that did or did not meet those expectations. When she read project three her expectation became especially clear: she wanted students to sound polished, professional, and engaged—in other words, to take on what she called a few lines later the “NPR conventions” for voice and tone (71).

These expectations—or features or behaviors that teachers like Leah expected to see, hear, or otherwise experience in student work—are implicit and are the most frequently occurring behavior in teachers’ reading processes, accounting for 555 T-units or 27 percent of the total protocol corpus. As Leah’s example illustrates, these expectations are implicit because they do not appear in the initial interview or course documents. In this way, implicit expectations are assumed to be unperceived ahead of time either by the students or by participants, or in some instances by both parties. However, because the researcher did not conduct classroom observations or conversations with students, it cannot be said with certainty that students were completely unaware of teachers’ implicit expectations; while it is possible that teachers may have mentioned those expectations during class time, because they were not present
in the interviews or artifacts it was assumed that students and teachers were probably not aware of the value assigned to those *expectations*.

*Implicit expectations* are evaluative behaviors, and their presence involves a judgment: Have students produced a text that aligns with teachers’ *expectations* and the values that those *expectations* embody? Leah evaluated her students’ aural narratives with *implicit expectations* for how the presentations ought to sound and relied on those *implicit expectations* to make judgments about how well students had followed her instructions. Many times, the relationship between *expectations* and evaluation is obvious. Leah, for instance, began her protocol by observing that, despite the fact that the assignment was to produce an aural literacy narrative, her student carried over print conventions in his project by introducing himself first. She noted that “He didn’t need to” (1). Leah’s *implicit expectations* for introductions are plain, and they led her to an evaluative decision: the student has done something that contrasts with what she expects, and the student is therefore on the wrong track. At other times, the connection between *expectations* and teachers’ evaluations is not as immediately obvious. After making the comment early in the protocol that the first student “didn’t need to” introduce himself, in the project that followed the introduction, which also mirrors print conventions, was the first thing Leah acknowledged: “It’s interesting that she did the same thing that [Student A] did” (30). In the third project she immediately made a remark about how the student has chosen to begin the text: “Introduction again” (66). When Leah says “Introduction again,” her words represent both an *expectation* (for a different kind of introduction than we find in print) and a judgment (that the introduction here, as in other students’ projects,
is not what she wants to hear and is somehow misplaced) (66). Based on a reading of the entire protocol, the evaluative nature of this comment is discernable.

As Leah’s example illustrates, often teachers’ *implicit expectations* are apparent when there is a mismatch between what participants expect to see or hear and what they actually find in their students’ work during the protocol. At other times, *expectations* emerge when teachers repeatedly notice similar features across a text or a group of texts. For instance, Leah makes several remarks about students’ introductions in the excerpts from her protocol above. This repetition is significant. Although at first glance it may appear as if Leah was merely describing what she heard, that she perceived the print-based introductory move in each narrative she listened to suggests that she expected something from students’ introductions. In this case, her slightly critical reaction to what she heard (it is not “needed”) indicates that she expected students to do something different; specifically, she expected them to adopt aural narrative conventions and move away from the print-based, header-like introductions that actually appear in their work. *Implicit expectations* also arise when teachers encounter a novel feature in student work. Susan, for example, found herself adjusting the evaluation of a student’s project after she encountered a unique and effective organizational pattern. While Susan did not articulate any *expectations* for organization prior to the reading situation, as she read this particular student’s work Susan’s *implicit expectations* for the organizational structure of the piece materialized. Teachers’ *implicit expectations* are often only evident after a review of the entire protocol or of the reader’s contextual documents; therefore, during the coding
process, the entire response context was always taken into account, including the protocol in its entirety and the *expectations* teachers had articulated in their interviews or artifacts.

While Wysocki (2001) argues that form and content always work together to create meaning in multimodal texts, participants in this study did not always read to evaluate multimodal texts in ways that recognized, appreciated, and evaluated this interplay. To better characterize these trends among participants, both types of *expectations* were further coded in two ways: as addressing *form, content, content/form, or technological* issues, and as discussing those issues in *static or dynamic* ways.

Selective coding also reveals that teachers’ *implicit expectations* focus on *form* (359 T-units), or how something was said, nearly twice as often as they address *content* (171 T-units), or what was said (see Table 10). For instance, Sara asked her students to choose the format of their presentations, specifying that her only *expectation* for the formal features of their work was that the form of the projects reflect the culture students were reporting on in her classroom artifacts. Yet, as she read during the protocol, Sara revealed several *implicit expectations* for the appearance of the presentations. Many of these were based on the use of color and, while her own preferences for particular patterns and colors may not have been clear previously, as she read one student’s presentation some specific *expectations* for the use of color emerged: “Hmm not really sure I like the red with black on it” (40), “I like the clear white though as opposed to this black and red that he's going with” (46), “Maybe if he went red, white or white red black throughout the whole thing that would've worked better than this red and white background” (58). This very last excerpt from her protocol reveals that Sara is evaluating her student’s text based
on her *implicit expectations* for the use of color. The text does not “work” as well as she thinks it could if the student had done something different with color. Specifically, her *implicit expectation* is that a more effective background would have integrated multiple, consistent, and easy-to-see colors: “Same color choice, which you are consistent with your color choice but you could have done white, red, black um as a pattern in the presentation as a slide background pattern throughout the presentation” (65). Marie also emphasized consistency of formal elements like fonts, colors, and backgrounds in her *implicit expectations* for students’ presentations. In fact, her desire for formal consistency in her students’ work appears to have driven her reading process at times, as she moved through a text with the intent of tracking consistency by posing questions such as: “Do they do that all the way through?” (254), or, “I didn't notice that in the last one” (54). She often praised students for formal consistency in comments like “But there’s, there’s real consistency here” (430), “This is, this is got a real nice consistency to it” (68), and “I like the consistency” (116). She also lamented when formal features were not consistent, suggesting that her *implicit expectations* for the consistency of form were used to evaluate student multimodal texts: “See I don’t like the inconsistency” (302), and “You gotta keep consistency going through a project” (350).
Table 10 | Sub-categories and dynamic/static ratings of implicit expectations

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Static</th>
<th>Dynamic</th>
</tr>
</thead>
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<td></td>
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</tr>
<tr>
<td>Form</td>
<td>165</td>
<td>107</td>
</tr>
<tr>
<td>Content</td>
<td>41</td>
<td>84</td>
</tr>
<tr>
<td>Technological</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Content/Form</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>219</td>
<td>196</td>
</tr>
</tbody>
</table>

Technological are the rarest form of implicit expectation (12 instances total), and concern students’ failure to use technology in correct ways to produce the project under study. These expectations often emerge when the reader is experiencing difficulty navigating the project. For instance Aaron, whose protocol contained three technological expectations, expressed his implicit expectation for students’ use of technology in comments like: “And you know, she already is she basically didn't figure out how to do the links right 'cause her her whole essay is one big link and her essay is… it's tiny type so I've gotta blow that up” (16). Sara, whose protocol contains four technological expectations, often communicated her wish that students had explored the technology more thoroughly to create a better project: “Or if she figured out if she would have figured out how to embed it into here instead of just putting the link” (174). It is significant to note that technological expectations appear to be purely an implicit phenomenon, although they are relatively rare. Although participants may have made technological demands in their interview or contextual documents (for example, Aaron specified in his assignment sheet that students use Flickr in particular ways to create their |
projects), those explicit demands do not appear to be applied during the response process for any teacher in this study.

*Implicit expectations* that address both what is said and how it is said are labeled as *content/form* and occur relatively infrequently (13 *implicit expectations* total). For example, Marie made note of both the formal features (introduction and conclusion) in her students’ work and the content (the project is about a person) in this *content/form* expectation: “So it's like a composition beginning and ending and the whole point is to uh showcase Jeffrey Miller” (246). Similarly, Anna pointed out both content (the concept of the work) and form (the shots) to create this *expectation*: “I'm still unsure as a viewer um how you are linking the conformity, formity, nonconformity concept with the uh playing card, card, um musician, musician um, musician, uh sequences” (156).

Labeling *expectations* in terms of whether they addressed form, content, or technology indicates the nature of teachers’ *expectations*. What it does not reveal is what teachers expect form, content, or technology to do. For instance, an *expectation* about *form* is not inherently superficial. Rather, how participants conceptualize form is more important: do they expect form to adhere to static rules and conventions regardless of context or purpose? Do they understand form as dynamic and in relationship to rhetorical context, as contributing to the text’s meaning or effect? While a *static* view might cause a reader to evaluate formal features for their decorative, pleasing, or conventional properties, a *dynamic* view would cause a reader to consider why formal features are there, why they are necessary or how they are related to meaning or effect as they
evaluate. All *expectations* in the study were therefore sub-coded a second time in terms of their *static* or *dynamic* qualities.

At one extreme, *expectations* rated a *one* are explicitly *static* in nature and reflect a conventional, rule-based understanding of form or content in student multimodal work; in *static expectations* for *form* and *content*, there is no assumed relationship between form or content and meaning and effect. Some examples of explicitly *static expectations* include: “Use a list of tasks and dates instead” (Susan, 155), “At least consistency with those animations” (Sara, 11). At the other extreme, *expectations* rated a *five* are explicitly *dynamic* and reflect an understanding of form or content as related to each other and/or to the meaning or effect of the text, such as: “To have an abstract concept that was revealed um revealed through shot making and um content” (Anna, 156) and “And in slowing it down would actually um make it a little more understandable for us I think” (Leah, 125). Some *expectations* fall between *one* and *five*. For instance, *expectations* rated a *two* lean toward *static*. While not obviously or explicitly *static*, *expectations* rated a *two* appear to be somewhat *static* in nature. In his protocol, Aaron reveals an *expectation* for the *content* of a student’s comic which was rated a *two* because while it seems *static* it also hints at the possible function or aesthetic, emotional effect of the comic upon the teacher-reader (it’s “funny” and “cute”): “I think it's funny and cute and and there's a lot of good stuff to work with here” (135). Similarly, *expectations* rated a *four*, suggest *dynamic* qualities but are less overtly *dynamic* in nature. An example from Sara’s protocol indicates a relationship between the content or message of the piece and the form which suggests *dynamic* thinking, but it does not overtly address the effectiveness of the relationship
(Sara only says it’s “nice”) or its relationship to the audience, so it was rated a four and not a five: “Hmm, nice collage of the cardio section especially with the bikes reflecting cardio that she worked at” (154). Finally, expectations that have dynamic and static qualities but were not clearly more like one or the other are rated a three. For instance, in Sara’s protocol, she says that “Soccer doesn't fit with any other images people are actually doing stuff and that one's just being a ball” (127). On the one hand, this expectation seems static because she does not mention what the significance of this lack of “fit” might be – she only says they don’t fit together because this image is of a ball and the others had people in them. On the other hand, this expectation could be interpreted as somewhat dynamic because it does address the relationship between the images and the content they convey.

Sub-coding illustrates that teachers’ implicit expectations were predominately static in nature; implicit expectations coded as either a one or two on the dynamic/static scale appear 395 times (or in 71 percent of implicit expectations) (see Table 10). These static implicit expectations, which focus on text as a rule-based or conventional product or on the teacher-reader’s aesthetic reaction to the text, are developed in situ and can be found across protocols, as in this comment from Sara’s protocol: “I'm glad that she only used the script for like titles instead of actual text that she's put” (204), or this evaluation from Marie’s protocol: “And she's using uh blue font and black font I like that” (383). Both Sara and Marie did not discuss fonts or colors in their contextual documents but made evaluative decisions about student work based on their implicit static expectations for these formal features. These expectations are static in that they are based in the
readers’ aesthetic reaction to the presence of formal features (revealed in phrasing such as “I dis/like” or “I’m glad”), rather than in a dynamic understanding of how features like font might be meaningful or appropriate, given the rhetorical situation.

2.2 Explicit expectations

In one of only a handful of articles published on the topic of multimodal assessment, Sorapure (2005) speaks to the importance of making clear what we value in or what we feel is valuable or “good” about multimodal texts: “As with print assignments, when we grade students’ work we are assessing their success in achieving goals that we value and that, ideally, are made explicit to our students” (p. 2). In 16 percent of the protocol data, teachers in this study work toward Sorapure’s ideal by establishing *explicit expectations* for student texts and addressing those *expectations* during their reading processes. *Explicit expectations* appear both in the protocol data and in course documents and/or preliminary interviews. For the purposes of analysis, it is therefore assumed that students and/or teachers are aware of *explicit expectations* before the response process begins. Again, because the researcher did not investigate classroom interactions, it cannot be said with certainty that students were always aware of *explicit expectations*. For instance, if an *expectation* appeared in the protocol and interview but not in the course documents, it would still be considered *explicit* even though students did not have access to it through course documents and students may or may not have been instructed verbally during class time that it was an *expectation*. Susan, for instance, specified in the initial interview that she would be “looking for effective use of the
presentation software” in her students’ multimodal progress reports (335-336). She outlined for students in contextual documents “effective use,” including the rule of seven, and use of animations, bulleted points, and abbreviated text. These features represent Susan’s explicit expectations for her students’ work.

Like their implicit counterparts, explicit expectations are evaluative behaviors and indicate a judgment on the part of the reader. In her protocol, Susan relied heavily on the explicit expectations described above during her reading process (101 of her 257 total protocol comments are explicit expectations) to evaluate her students’ work. For instance, one of Susan’s explicit expectations concerned the use of animations and, as she read, she frequently judged student work based upon whether or not those animations were present in comments like, “Okay, alright, she has animations between her slides. Has not animated her bulleted text” (137-138), and “Bulleted points are not animated to bring them on one at a time. Don’t like that” (5-6). Anna also established a set of explicit expectations in course documents, specifying for instance that students were to produce a “conceptual, not representational” video. As she read during the protocol, Anna noted that in the first student’s video the “Concept is very evident” (31) and that “I think conceptually he’s really done a nice job” (35). Through her explicit expectation for the “conceptual” nature of the videos Anna constructed judgments about the text, indicating the student had “done a nice job.”

Two features of explicit expectations are significant: first, unlike their implicit counterparts, explicit expectations focus nearly equally on form and content, and second, like their implicit counterparts, explicit expectations are predominately static in nature.
When teachers articulate their *expectations* ahead of time in course documents or initial interviews, they tend to balance a concern for form and content; *explicit expectations* for *content* (118 *explicit expectations*) are relatively close in number to those for *form* (193) (see Table 11). Regardless of whether they concern *form* or *content*, *explicit expectations* coded a *one* or a *two* for *static* qualities appear in 227 instances, or 70 percent of the time (compared to 71 percent of the time for *implicit expectations*). Most *explicit expectations* are *static* because they consist of form or content rules that teachers expect students to follow. Susan, for instance, was very explicit about the formal conventions she wanted her students to emulate as they assembled their business presentations. In this excerpt from her protocol (which is characteristic of the shape of her protocol as a whole), Susan noted whether or not her *explicit static expectations for form* had been followed: “Okay, alright, she has animations between her slides. Has not animated her bulleted text. And they are very text heavy” (137-139). Susan’s *expectations* for animations are considered *static* because they represent a set of conventions for assembling business presentations that Susan applies to all of her students’ texts, regardless of their individual purposes or other contextual information. Further, these formal conventions are not tied to the meaning of the text. *Static explicit expectations for content* are also seen in the protocol data. For example, Leah specified in her contextual documents that she wanted students to tell a story about their literacy history in their multimodal projects. This *expectation* is based in an understanding of the “rules” of aural narrative, namely that narratives consist of stories. In this way, the *expectation is static*: it does not consider whether or not a “story” may be the most fitting content depending on the author’s purpose and context. In
the protocol, Leah referenced her *explicit static expectations* for students’ stories on several occasions in comments such as, “Now he’s telling a story” (115) or “I like I like how that story turns out” (123).

**Table 11** | Sub-categories and dynamic/static ratings of explicit expectations

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Static 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>114</td>
<td>29</td>
<td>8</td>
<td>10</td>
<td>32</td>
<td>193</td>
</tr>
<tr>
<td>Content</td>
<td>58</td>
<td>23</td>
<td>11</td>
<td>8</td>
<td>18</td>
<td>118</td>
</tr>
<tr>
<td>Content/Form</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>6</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
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<td>55</td>
<td>19</td>
<td>24</td>
<td>53</td>
<td>323</td>
</tr>
</tbody>
</table>

2.3 Overall assessment

The third type of evaluative behavior in the protocol is *overall assessment*, in which teachers constructed vague judgments about student work in comments like “I think this is a nice project” (Marie, 467), or, “That is good” (Joe, 14). These *overall assessments* appear 114 times in the protocol data (6 percent of the total corpus).

Although it is often the case, *overall assessments* do not always indicate that the teacher is evaluating the entire text or the text “overall.” Instead, the *overall assessment* category signals that the teacher is evaluating the text or its features in overall or general ways without referring to the basis for their vague judgment. For instance, when Joe said, “That is good,” it is not clear what makes the text or feature he refers to “good,” but it is clear that he was evaluating his student’s work. In other words, it is difficult to identify *what expectation* teachers are basing their judgments upon in *overall assessments*. This
phenomenon may stem from the fact that *overall assessments* were recurrently based on aesthetic judgments about a text or its components. Aesthetic judgments are constructed on the basis of the reader’s own emotional reaction to or enjoyment of the text, evidenced in comments like, “This is this is cool” (Marie, 7), “I really like it” (Sara, 148), “Um because I really dig this video” (Anna, 44). The values inherent in *overall assessments* like these may not be articulated because, like *implicit expectations*, they are either tacit or based on intuitive, instantaneous decision making.

### 3.0 Reading for non-evaluative purposes

Murray (1989) has advocated that teachers “Take what we know about the reading process and apply it to a reading of students’ papers” (p. 84). By stepping outside of our evaluative goals as teachers and adopting the role of a reader whose purpose is to make sense of a text, then we might think about “the features of the paper differently” (p. 82). While the majority of teachers’ reading behaviors in this study were characterized as evaluative and reflect components of what Murray has called the “teacher-reader mode,” just over a quarter of the protocol data contains the kind of non-evaluative, reader-based comments that Murray recommends. In the non-evaluative behaviors of *reader reaction, contextual information, personal reaction (text), and personal reaction (student)*, teachers were focused on making meaning from their students’ multimodal work without passing judgment.
3.1 Reader reaction

When teachers focused exclusively on making meaning on the basis of the text itself, they were engaged in reader reaction. This first kind of non-evaluative behavior appears 200 times in the data set (11 percent the corpus) but was unevenly distributed among participants. For instance, for Marie, Aaron, and Sara, at least 14 percent of their protocols consisted of reader reaction behaviors. For others, however, reader reaction comprised a trivial amount of their reading processes. For example, only seven of Susan’s 257 total protocol comments (3 percent) and 14 of Leah’s 256 protocol comments (5 percent) were coded as reader reaction. When engaged in reader reaction behaviors, teachers interpreted their students’ work through readerly moves like inferring, questioning, predicting, and synthesizing about the text (Edgington, 2005; Tierney & Pearson, 1983). Since the research question for the present study revolved around teachers’ values and decisions about multimodal work in the response process and not around the particular non-evaluative behaviors teachers used to interpret their students’ work, these reader behaviors were combined into the broader category of reader reaction. However, to elucidate how reader behaviors were identified during the coding process, these behaviors are defined and accompanied by examples below.

One reader behavior, inferring, allowed participants to make guesses about the possible meaning of the material they encountered in their students’ work based on textual clues. For instance, Sara infers important information about the meaning of her student’s project from the title of one of his web pages: “Okay news. Oh these must be his actual articles that he's been writing this semester” (256). Participants engaged in
another behavior, *posing questions*, in order to monitor their own comprehension, as in this comment from Leah’s protocol, “Didn't we already know that she was at a basketball tournament?” (148). Questions were also used by some readers to ask about the content presented in the project. For instance, Marie asks a series of questions about the meaning and origin of the art included in one student’s PowerPoint project. Participants also constructed *predictions* about the direction of the text: “So the cue here is that he's going to move into a new narrative” (19). Finally, readers *synthesized* what they had already read. After seeing every brochure in a set, Marie synthesizes what she observes happening in the set: “So each one of these has different references depending on the student, okay” (376).

On occasion, teachers return to the features and behaviors they note earlier in *reader reaction* comments to make a judgment about student work. For example, in her protocol Sara originally engaged in *reader reaction* in order to comprehend the organizational pattern motivating her students’ work. As she read the student’s PowerPoint project, she commented that, “These must be the sororities first” (14). In her next utterance, she connected the student’s color choices to the specific sorority being discussed: “Those must be their colors” (15). In these two brief *reader reaction* comments Sara has made a move to interpret the student’s choices in terms of the larger topic, an ethnographic look into Greek life on campus. She was poised to then make predictions about the future shape of the text based on the pattern she observed. This information became critical to how Sara interpreted the text later on, especially in terms of whether or not the student had made effective choices with organization and color. For
instance, later in the protocol, Sara noted that she liked how the student had given each sorority its own slide and that the student had used color on a consistent basis.

3.2 Contextual information

As James Gee (2007) has asserted, readers always “read something in some way” (p. 5). That is, a variety of contextual factors are always at work when a person reads, influencing the “way” in which she reads a text. For teachers reading student work, a variety of contextual factors may be significant. For instance, Pula and Huot (1993) found that teachers’ “personal background, professional training, and work experience” influenced the way they read and rated student essays (p. 257), while Edgington (2005) discovered in a recent study that teachers’ response practices were greatly impacted by their “personal beliefs and values, classroom experiences, relationships with students” (p. 141). Data from the present study illustrates that teachers frequently made explicit mention of contextual information as they read, referencing previous classroom activities, students’ prior performances, students’ personal life circumstances, as well as other courses they had taught. Teachers engaged in this second type of non-evaluative behavior 158 times (or in eight percent of the protocol data) (see Table 9).

Teachers often relied on contextual information behaviors to compare students or student work in order to discover trends among projects in a set, or to recall students’ circumstances or prior work to establish a context for evaluations. For instance, Sara often called upon her contextual knowledge about previous presentations of the material she read in her protocol in comments like, “Oh that's right, she talked about that in her
presentation” (18), or, “But working with her presentation I think what she talked about…good eye contact, behind the scenes pictures” (99). Anna relied heavily on contextual knowledge about her students’ lives and prior work to guide her reading process: “Um one of the things I know from talking to [Student A] is that he ended up doing his movie three times. […] So I’m looking at this video with that understanding of the um way he has persevered over uh with this video” (67, 70). Compared to other participants, Susan and Leah relied very little on contextual information as they read, making only five and seven contextual comments, respectively.

While contextual information comments are not in and of themselves evaluative, they often contribute to both teachers’ interpretive and evaluative processes. Participants also frequently use contextual information about their students, their students’ work, or their classroom contexts to scaffold their evaluative decisions. For instance, Anna often prefaced her reading of each video with comments about the specific student’s situation or experiences creating the text, like “He has Grand Mal seizures and um so there is some extenuating circumstances” (98), or, “He had some technical difficulties with iMovie and transferring his movie from one place to the other” (68). The generosity of the reading, the type of response, and the eventual grade that she gave to her students’ work depended upon this contextual information in some cases. For other readers like Joe, previous iterations of the text or the student’s other work both played a role in the response process. Joe used contextual knowledge about students’ prior performances to frame his reading, often making connections between the text in front of him and others that he had
seen, as evidenced by comments like, “Yeah I realized that in the paper that she's written” (199), or, “I mean he he always emphasizes psychiatry um health” (100).

3.3 Personal reaction to students and texts

Murray (1989) has argued that “Readers respond emotionally, aesthetically, and intellectually to every kind of text” (p. 76). Although we might not tend to think about the role of personal or “emotional” reactions when we read student work, protocol data illustrated that teacher-participants did engage in personal, non-evaluative reactions to the text and/or the student in just under a tenth of the data set (147 T-units) (see Table 9). When they made personal reactions to the text, teachers often referenced their own lives or experiences in comments like “Oh that's what my husband was” (Marie, 412), or, “In fact I remember that there was a class in which I asked students whether any of them had ever gone to a Native American reservation and nobody raised their hand” (Joe, 162).

Personal reactions to the text demonstrate a commitment to experiencing the text outside of what Murray calls the “teacher-reader” mindset. These kinds of comments seem to contribute to teachers’ interpretation of the text, as well as their own enjoyment or application of the text in contexts beyond their current classroom. For instance, in his personal reaction above, Joe is forging connections between the student’s ideas and Joe’s previous experiences as a teacher. Marie, on the other hand, is linking the content to the very personal realm of relationships. She is literally trying to make a personal connection to that text. Although they did so less frequently, participants also tried to make personal connections to the student-authors in 29 comments (roughly one percent of the total
corpus). For instance, Joe, who makes 19 of the 29 personal connections to students in the corpus, often hypothesizes about the student’s success as an author or a student beyond his classroom: “I think she could be a good history student” (228). Three participants, Susan, Robert, and Marie, made no personal reaction comments about their students.

4.0 Behaviors extraneous to the response process

Although verbal protocols have been theorized about by cognitive psychologists like Ericsson and Simon (1993) as representations of an individual’s thought processes, in the present study, nearly a quarter of the protocol data (503 comments) consisted of social comments directed toward the researcher. These comments, labeled extra-response information and meta-commentary, were extraneous to the response process itself. When teachers engaged in these behaviors, they were describing what was happening, or were explaining or justifying their actions. These behaviors did not overtly contribute to teachers’ meaning-making processes nor did they represent their evaluative decisions about student work. Both kinds of extraneous behaviors may be the result of the protocol method and likely would not normally be a part of participants’ reading processes.

4.1 Extra-response

In extra-response information comments, which occurred 324 times in the corpus, participants provided information that was extraneous to the reading or response process
itself. For the most part, these comments were participants’ efforts to explain the things they were doing, things that were happening outside of the reading or response process. For instance, Susan often described her actions on the computer prior to opening and after responding to student work in comments like, “Alright, there it is it is on my desktop” (166) or “And I'll open the next one first I'll save it to my desktop” (171). Because the camera was always angled so that the computer screen was not visible to protect students’ identities, participants like Susan typically described their physical movements through the computer interface to the researcher because those movements were not visible on the video. Also, because of the camera angle, other participants felt it necessary to relate what they were seeing, hearing, or otherwise experiencing to the researcher in comments like “There’s a pair of really dark denim red pants. And there’s jeans” (Marie, 97-98), or “Um that movie that she had in there was a demonstration of them practicing the song” (Sara, 231). Finally, some participants engaged in multiple tasks during the reading process and described those processes to the researcher, perhaps to explain why few reading or response comments were being made: “I’m checking my email. I always check my email during things like this” (Aaron, 51-52).

4.2 Meta-commentary

In line with the procedures for conducting think-aloud protocols established by Ericsson and Simon (1993), participants in this study were instructed during training not to explain or justify what they were doing. However, during the protocols themselves, teachers often felt the need to explain or justify what they were doing as they read student
work; these kinds of comments were labeled *meta-commentary* and were coded for 179 times. Some *meta-commentary* utterances reflect on the response process, as in Marie’s comment, “I'm glad I read the first one first 'cause I might have been harder on that one” (468). Others serve to explicate teacher’s response goals to the researcher: “So I wanna tell him that. I wanna tell him that I really appreciate um that voice he's creating” (Leah, 14).

5.0 Discussion

When teachers responded to their students’ multimodal work during protocols in this dissertation, they engaged in three types of behavior: evaluative, non-evaluative, and extraneous. The distribution of these behaviors across teachers’ protocols suggests several characteristics of response to student multimodal work. First, it indicates that teachers’ multimodal response practices are driven by their *expectations*. Teachers’ evaluative behaviors were the most frequently occurring type of behavior, accounting for nearly half of the protocol data, and the overwhelming majority of those evaluative behaviors consisted of *implicit* and *explicit expectations*. This signifies that overall teachers’ multimodal response practices are dominated by their evaluative *expectations* for student work. The important role of teachers’ expectations in response has been identified in prior studies of teachers’ print-based response practices. In this body of research, expectations have often been typified as preconceived notions about a task or student that influence the response that teachers or raters give. Ball (1997), for instance, has researched how African-American teachers tend to have more stringent expectations
for their students’ performances than do European-American teachers. Teachers’ expectations about student identity were also discovered to influence teachers’ response practices in Barritt, Stock, and Clark (1986) and Diederich (1974). In this study, teachers’ expectations also have a pivotal role in the response process, serving as the predominant basis for teachers’ evaluative behaviors as they engage with student multimodal work.

Teachers’ expectations reflect what they value in the shape of their students’ work, but also their values about text and multimodality more generally. For instance, Leah’s implicit expectations for tone or the use of introductions in her students’ aural essays represent not only what she wants to hear in her students’ multimodal texts but also what she expects from the genre of aural essays. Susan’s explicit expectations for formal features like animations and bullet points in her students’ business presentations indicate not only what she expects students to replicate, but that she expects business presentations to conform to a set of rules or conventions independent of rhetorical purpose, context, or audience. The process of multimodal response, guided by expectations, appears to reflect what we value in student work and in the world more broadly as scholars, readers, and practitioners. Researchers like Emig and Parker (1976) and Stock and Robinson (1987) have confirmed that teachers’ preexisting anticipations or expectations for students and student work can be attributed to a variety of contextual factors in teachers’ personal and professional lives, and that those anticipations or expectations have the potential to influence teachers’ response practices (the role of contextual factors in the reading and evaluative processes of teachers in this study is explored in detail in Chapter IV).
Second, these findings demonstrate that **multimodal response is extemporaneous**. *Implicit expectations* were the most frequently occurring category in the data set and dominate teachers’ response practices. This finding suggests that teachers typically make judgments about student multimodal texts extemporaneously as they respond. When teachers cultivate *implicit expectations*, they frame evaluative decisions about student work around values that are either newly discovered or intuitive. For instance, in her protocol Leah constructed several *implicit expectations* around narrative genre conventions. No mention of these conventions was made in her interview or contextual documents, but as she read the importance of these features to the success of her students’ aural narratives was palpable. Later in the protocol Leah referred to conventions like tone and introductions as “NPR conventions,” which suggests that she may have had these conventions in mind prior to the response situation but was not fully cognizant that she valued them (71). It has also been demonstrated that Sara relied on many *implicit expectations* for the form of her students’ work, commending color choices that were “consistent” and contributed to the text’s readability. Sara’s values may emerge based on her experience of student multimodal work. As she read, she frequently commented that she disliked or liked particular colors and arrangements, and they eventually led her to articulate *implicit expectations* for the use of color. Overall, then, *implicit expectations* are extemporaneous because their effect on teachers’ response processes cannot be anticipated and because they appear to proceed from or be stimulated by the reading of student multimodal work.
The tendency to construct extemporaneous evaluative decisions, which dominates the protocol data as a whole, is a hallmark of multimodal response and suggests a few possible explanations. One is that multimodality is a relatively new phenomenon and, as such, teachers may lack experience reading multimodal text types or are unsure of what they expect. Teachers may approach response as an act of discovery in which they work out their values as they engage with student multimodal texts. For instance, as she read, Sara relied on *implicit expectations* for the use of color in her students’ projects. As she encountered different uses of color in her students’ work, Sara generated *expectations* about effective and ineffective color combinations eventually deciding that an effective background would integrate multiple, consistent, and easy-to-see colors: “Same color choice, which you are consistent with your color choice but you could have done white, red, black um as a pattern in the presentation as a slide background pattern throughout the presentation” (65). While focusing on similar *explicit expectations* consistently across student texts may be an attempt to ensure fairness for students, generating *implicit expectations* as they encounter student multimodal work may also allow teachers to observe potentially meaningful features not accounted for by their *explicit expectations*. For instance, Susan abided by her *explicit expectations* for what an effective PowerPoint presentation ought to contain, including features like animated text, bulleted points, short sentences, and so on. As she read, Susan dismissed the significance of features that did not fit within her *explicit expectations*, such as students’ use of the aural mode: “Oooh it has sound I don't like that” (4), or, “Lose the sound effects” (10).
Another explanation for the prevalence of extemporaneous *expectations* may be that teachers’ learning goals or assignment criteria for multimodal texts may fail to account for what teachers actually encounter or find effective during the response process itself. Leah, for instance, establishes broad *explicit expectations* for her students’ projects, mandating only that students produce literacy stories of a specific length. As she read their aural narratives, however, it is clear that these expansive *expectations* do not speak to the conventions of narrative that emerge as *implicit expectations* or features that she values most in her students’ work. For some participants, the learning goals and assignment criteria they had enumerated in interviews and artifacts contradicted the *implicit expectations* generated during the response process itself. For instance, in Sara’s contextual documents, she stressed the importance of rhetorical features such as audience and a relationship between form and the culture students were reporting on. During the protocol itself, however, Sara often evaluated student texts on the basis of *implicit expectations* that related to formal aspects of the text like font or color choice without mentioning their relationship to the rhetorical context.

Other researchers have investigated this mismatch between what teachers say they value in print-based student writing and the expectations they reveal during the response process. Rosemary Hake and Joseph Williams (1981), for instance, hypothesized that teachers of writing say they prefer direct, simple styles of writing (what they refer to as “verbal”) but in practice prefer “institutional prose, its pervasive abstraction” (what they refer to as “nominal”). They conducted a series of experiments to investigate the validity of this hypothesis, finding that when teachers assessed student writing they did prefer
student writing that exhibited a “nominal” style. Hunter Breland and Robert Jones (1984) also discovered discrepancies between what teachers claimed to expect or value in a questionnaire and what they valued as they read student work. After completing a questionnaire about their values, teachers were brought in and asked to read through a set of sample essays. Breland and Jones compared the features that teachers actually marked as influencing their decisions during the reading process with the values they claimed were integral during the questionnaire, finding that “there was some discrepancy between perceived and actual weight given to specific characteristics of essays” during these teachers’ assessment processes (p. 118). It may be the case that teachers in this study, like those in the research of Hake and Williams or Breland and Jones, are unaware of what they truly value in student multimodal texts. This hypothesis, which focuses on gaps between teachers’ articulated sense of value and the implicit expectations that they relied on in their response, is further explored within each teacher’s interview and artifact data in Chapter IV.

Third, protocol data suggests that teachers’ multimodal response practices tend to focus on form and to be static in nature. Teachers’ implicit and explicit expectations for student work are the first and third most frequent category in the corpus, respectively, and together represent a large portion of teachers’ response practices. Whether they are implicit or explicit, expectations in this study are based on form almost twice as often as content. Process pedagogy may have encouraged writing teachers to shift their evaluative focus away from form to privilege content, waiting until late in the writing process to encourage a student to choose “any form of writing which may help him discover and
communicate what he has to say,” but the prevalence of expectations for form in this protocol data suggests that teachers have returned their attention to form in their responses to student multimodal work (Murray, 2003, p. 6). The form of multimodal texts is more noticeable and unpredictable than that of the traditional print-based essay in a 12-point font on an 8 ½ x 11 sheet of white paper, and this may be one reason why teachers gravitated toward these immediately apparent formal features first. As Wysocki (2004a) has written, multimodal or “new media” texts are those whose materiality has been made visible; in light of this definition, it is perhaps not surprising that teachers were drawn to the visible, material or “formal” aspects of their students’ work. Further, while process pedagogy has emphasized that form is secondary to content, in teachers’ multimodal response practices form is just as, if not more so, important as content. As Wysocki (2001) has suggested, in multimodal texts form has content, and vice versa.

The overwhelmingly static nature of expectations in this study, especially those for form, indicates that when teachers respond to student work, they have in mind and value rules or conventions for the form or content of multimodal texts. It also suggests that teachers believe these conventions or rules are not always related to the text’s meaning, purpose, or rhetorical context. In Susan’s protocol, for instance, she relied on static expectations for the form of business presentations, such as the use of animations, that she considered applicable across students’ text regardless of their individual purpose or audience.

Fourth, protocol results suggest that teachers’ non-evaluative behaviors during the response process reflect their beliefs about student multimodal texts and authors
and are also used to inform evaluative behaviors. The most prevalent type of non-evaluative comment is *reader reaction*, comments in which teachers react to the text as readers and not just teacher-readers, refraining from judging their students’ work to discern the underlying message. The tendency to engage in *reader reaction* comments suggests an understanding of multimodal texts as acts of meaning-making driven by a writer’s choices, not just as a performance or a task driven by the teacher’s instructions. It also indicates that the teacher has an interest in what the student is communicating. The distribution of *reader reaction* comments among participants seems to suggest the extent to which they value non-evaluative engagement with their students’ ideas. For the majority of teachers, *reader reaction* comments make up at least a tenth of the protocol data and demonstrate that most participants devote some time to immersing themselves in the messages communicated by multimodal texts in non-judgmental ways. At times, teachers relied on the meaning they had made through *reader reaction* behaviors later in the protocol to construct evaluative decisions about student work. Sara, for instance, used her early interpretation of a student’s choice to represent each sorority individually in her PowerPoint to a later evaluation about the effectiveness of separating sororities out by their organizations’ colors.

Research has indicated the important role of contextual factors in the response process. For instance, Tobin (2004) has argued that when a teacher reads student work, she is simultaneously reading contextual knowledge about her students and her classroom and this knowledge is what enables a teacher “to read a student text productively” (p. 15). Similarly, Huot (2002) has also contended that, “context not only affects the ways in
which we read our student writing but actually makes a cogent reading possible” (p. 125). For many participants in this study like Anna and Joe, contextual information about prior versions of student work and students’ experiences in and out of school help to inform the meaning they made from student work, as well as their evaluative decisions about its effectiveness. It is somewhat surprising, however, that for roughly half of the participants in this study, contextual comments were a rare occurrence. For Aaron, Leah, and Susan, contextual comments comprise four percent or less of the total protocol, which is half of the overall average of eight percent. For these readers, contextual information seems to be less important than what goes on in the text itself, suggesting that they view the multimodal assignments they read as isolated textual performances that ought to be judged independently of their knowledge about the authors and their abilities, struggles, and prior performances. This finding may also correspond to Leah and Susan’s expectations for student work, which also tend to be predominately static in nature. While dynamic expectations consider rhetorical context and purposes, static expectations focus on the text itself without consideration of contextual factors.

A final non-evaluative reader behavior was the construction of personal connections to the text or to students. Overall, two patterns of personal reaction appeared among participants: the choice to make no personal comments or very few about the text or student (Anna, Leah, Robert, Sara, Susan) and the decision to make frequent mention of the personal during response (Aaron, Joe, Marie). Wolfe’s (1997) study of proficient and less proficient raters revealed that experienced evaluators tended to refrain from making personal connections to student work, and this study supports Wolfe’s assertion
to a certain extent. Like the proficient raters in Wolfe’s study, both Anna and Susan are experienced (each has over 30 years of teaching experience and has been assigning and assessing multimodal texts for several years) and tend not to engage in personal reactions to students or texts. However, Sara and Robert are the least experienced teachers in the study and they, too, refrain from personal reaction in most cases. Additionally, Marie also has over 30 years of experience but makes frequent mention of the personal. The differences between this study and Wolfe’s might be attributable to the fact that Wolfe researched psychometric essay raters reading essays written by students they did not know, while this study focuses on teachers reading their own students’ work, with which they might tend to be more personally involved.

There may be a correlation between reader behaviors and personal connections, however. Both Aaron and Marie had several personal reactions to students and texts and engaged in a high frequency of reader reaction behaviors while Susan and Leah both had few personal reactions and engaged in few reader reactions. The frequency of personal connections to texts and authors occurs at a similar rate as reader behaviors. This suggests that teachers who value making meaning of their students’ work also are committed to a personal dialogue with the work and the student creator. Conversely, those who spend very little time making meaning of student work through reader reaction comments also spend little to no time engaging with that work in a personal way.

Finally, the presence of extraneous behaviors illustrate that teachers’ response processes in this study, as they were captured by verbal protocols, are social
activities. This research confirms Sasaki’s (2008) findings, demonstrating that in a quarter of the protocol data, protocol participants engaged in the social, extraneous, and explanatory behaviors of meta-commentary and extra-response information, mainly for the benefit of the researcher. In Sasaki’s study, participants engaged in a think-aloud protocol while completing a questionnaire and the “social context was controlled” according to Ericsson and Simon’s (1993) guidelines (p. 371). In spite of this, Sasaki discovered that her participants vacillated between two different forms of address, indicating that they were generating “comments” that “might be used for the researcher’s benefit rather than as cognitive goal formulation” (p. 371). The presence of extraneous behaviors indicates that, as they read, protocol participants in this dissertation also were conscious of the fact that the researcher would be viewing and interpreting their protocol. By engaging in meta-commentary and extra-response behaviors, participants provided information such as descriptions of what they were reading and explanations of what they were doing in what was likely an attempt to help the researcher contextualize protocol data for analysis. Sasaki has argued that the social aspects of protocol data must be recognized during the analytic process, so that researchers are attuned not just to “what is produced” but also “how it is produced” (p. 372). In this study, the social context was attended do both through the coding of socially-based, extraneous behaviors and by situating protocol data within the larger context of teachers’ experiences in Chapter IV.

6.0 Conclusion
The research questions that motivated the use of verbal protocols in this dissertation were focused on generating an understanding of teachers’ multimodal response practices. An analysis of protocol data reveals that those practices are greatly influenced by teachers’ often extemporaneous, form-focused, and static expectations. It also illustrates the role of other kinds of non-evaluative reading behaviors in the response process. In the next chapter, protocol data results for each participant are compared to contextual documents to situate each teacher’s protocol and to reveal the origins of their reading behaviors. For example, Susan’s work as a freelance writer in a corporate setting in the 1970s and her 30 years of experience as a non tenure-track writing instructor (often teaching a 5/5 load or higher) seem to correlate with her set of strict set of formal expectations for multimodal texts. Her expectations correspond to the needs of the ideal “business” reader prototype she has created based on her extensive professional writing experience. Her expectations are also straightforward and allow her to manage the large volume of student work she receives teaching a 5/5 load. As Susan’s case illustrates, it is imperative to look into why teachers’ response processes are extemporaneous and motivated by static understandings of form. In other words, how do teachers’ reading behaviors match up with their interview and course materials? Why might a mismatch occur?
CHAPTER IV

A Descriptive Analysis of Contradictions and Connections between Teachers’ Articulated Multimodal Beliefs and Response Practices

Hillocks (1995) has maintained that as teachers, our pedagogical beliefs invariably influence “what and how we teach” (p. 28). As part of the “what” and “how” of teaching, multimodal response practices are also likely to be influenced by teachers’ beliefs. If a teacher believed in the importance of fixed design rules in multimodal texts, for instance, her response to student work might be informed by these beliefs and focus on whether or not students had conformed to design rules. In this chapter, a thick description of teachers’ beliefs revealed by interview and artifact data is provided in order to explicate what participants believe they are doing or ought to be doing when they assign and respond to student multimodal work in their courses (see Chapter II for a complete discussion of the analytic procedures and a list of interview questions). In particular, the thick description focuses on teachers’ educational and professional trajectories and their theories about multimodality and student learning, as Hillocks has written that teachers’ beliefs are informed by both “theory, practice, and research” and also “values, attitudes, beliefs” based in unique “life experiences” (p. 37).
The purpose of thick description as a method of analysis is to help contextualize the phenomenon under study: teachers’ multimodal response practices. As Ponterotto (2006) has articulated, thick description “speaks to context and meaning as well as interpreting participant intentions in their behaviors and actions” (p. 541). In other words, a thick description of teachers’ beliefs—including their theories, assumptions, and life experiences—may help to illuminate teachers’ practices, including why teachers behave the way they do when they respond to student multimodal work. Following a thick description of possible influences on teachers’ beliefs in this chapter, therefore, is a thick interpretation of those beliefs and their relationship to each teacher’s response behaviors in the protocol data. Finally, significant trends among participants are discussed, including contradictions between teachers’ beliefs about multimodality and their response practices.

The place of rhetoric and technology in Anna’s beliefs about multimodality

As the most experienced participant in the study, Anna has been teaching composition courses for over 30 years. Anna adopted multimodality early on in her pedagogy because she had access to the literacy sponsors, technologies, and resources that made multimodal composition and teaching possible. These encounters with technology and multimodality profoundly changed the way Anna thought about literate practice, and today Anna continues to be reflective about the place of multimodality in literacy education. She believes that she is a teacher of rhetoric and that multimodality is necessary because it familiarizes students with the “available means” of persuasion they
need to be successful in a diverse world. Anna subscribes to general rhetorical beliefs about multimodality, but was not specific about her rhetorical expectations for student work in the interview or contextual documents. Yet Anna’s response practices are rhetorical in very specific ways; for instance, she relied on many expectations for the rhetorical relationships between modes or between audience and meaning to make evaluative decisions. Conversely, while rhetoric is instrumental in Anna’s beliefs about multimodality, she did not mention technology in relationship to multimodality. Protocol data reveals that Anna frequently gauged students’ facility with technology during her response process, suggesting that technology is an important part of Anna’s beliefs. This paradox between explicit beliefs and actual practice likely results from the fact that multimodality is an established practice for Anna and, as such, portions of her theories and beliefs about multimodality may have become tacit.

When Anna left home in the 1960s to study at a liberal arts college in the Midwest, she was unaware that she would become an English teacher. Anna’s original aspiration was to be an equestrian, but after injuring herself numerous times while riding Anna changed the focus of her studies to English Education. After graduating with her Bachelor’s degree, Anna traveled to Scotland to teach “in a small cole-mining district just west of Glasgow” which she described as, “Very poor um and um very cold” (128-129). She taught there for less than a year, and when she returned to the United States late in a hiring cycle she realized that she would have to take the only job she could find: “The job that I got was in a poor, um all-black school district outside of Houston, Texas. And the reason I got the job there was because nobody else wanted to work there” (132-134).
Anna worked in the district for several years and commented that “I learned more about teaching there than I had anywhere else in my life” (140-141). During her interview, Anna maintained that she had an interest in teaching even when she was pursuing an equestrian degree. She attributed this interest to historical circumstances: “Nobody in my family was a teacher. Um but it just seemed like something I could do. And something I was interested in. I guess another part of that is in the '60s, um, when I grew up and uh during my formative years there was a huge emphasis on um change and service and you know, um, living your life so that you made things better. And I still believe that. It's very Midwestern of me” (76-80). Today, Anna’s teaching philosophy reflects this historically situated belief in education as a transformative act that “changes” students. In her interview, for instance, she advocated for “the power of language to transform people’s lives” and contended that multimodality was one way in which students could be exposed to multiple languages and semiotic systems in order to become effective communicators in and outside the classroom (175-176).

In the 1970s, Anna chose to leave public school teaching to pursue her Master’s and doctoral degrees in Curriculum and Instruction at a large research institution in the Southwest. It was during her tenure there as a graduate student that Anna stumbled upon computer technology for the first time. She was helping a fellow student to code his dissertation data, and in return for her assistance he taught Anna to use the mainframe computer at their institution so that she could type her own dissertation. “Um and that was wonderful because I didn't have enough money to pay for a typist. So um I learned how to use a computer first by using a mainframe to do word processing in a very uh
elementary way. Or it seems elementary now. Back then it was very complex,” Anna explained (23-26). Interestingly, Anna did not actively seek out computers. Instead, she learned to use them because of the circumstances she found herself in: she happened to be a student at a research institution where access to a mainframe computer was available for humanities students, and because she agreed to assist a colleague he reciprocated by sharing his valuable technological expertise with her. Because very few people in the field knew how to use a computer at the time, when Anna graduated with her doctorate in Curriculum and Instruction in 1981 she found that she was “an expert by virtue of learning something very simple” (28-29).

After graduating, Anna moved back to the Midwest for a job at a technical university. There, Anna taught professional and technical writing classes that often involved “visual elements” (188), and later “video” (189) and “digital audio” (190). These early multimodal teaching experiences helped Anna “to see the benefit of um multiple uh modes of expression uh multiple modalities of expression and how they figured into communication” (185-186). At the same time, Anna was involved in discussions about technology and composition with other computers and writing scholars as part of an online community. Anna recalled that the first multimodal text she ever created was through her participation in this group: “We had been working at that time with um uh sort of ascii representations of ourselves online. So that was the real first um digital uh non-print representation that I did myself” (197-198). As a member of this group and an instructor at a technical university geared toward engineering majors, Anna had been creating, assigning, and responding to multimodal texts long before she first
encountered the concept in print when the New London Group (2000) published their treatise on multiliteracies. A few years ago, Anna made the move from the technical university where she had taught for over 20 years to Institution B, a large research university in the Midwest. As a tenure-track full professor at Institution B, Anna frequently teaches courses that integrate multiple forms of technology and composing practices within the English Department’s concentration in Digital Media Studies. She confirmed that, “Every class that I teach has uh some sort of multimodal component” (158).

When Anna first encountered multimodality early in her teaching career at the technical university, she was forced to reassess her own perception of literacy. “I think I was learning how broadly um how broad uh our understanding of literacy really needs to be. And how limited and narrow my own understanding of literacy was,” she reflected (213-215). In her interview, Anna used similar terminology to describe her continued struggle to define the place of multimodality within Rhetoric and Composition. She said, “But I don't see why we should limit our attention to that very narrow bandwidth of literacy. I just don't understand why we should be limited in that way” (234-236). Although Anna described mono-modal or print-based compositional practices as “limited,” she conceded that she is often torn over the tension between the important roles of print and multimodality in students’ lives (228-229). While she affirmed that print is not always the most “effective” choice (236), she begrudgingly accepted that print is “still a very privileged form of communication in our culture” (253). In contrast to print, multimodal forms of communication are more “broadly capable of sharing
information. No one mode of expression can carry all meaning. So in order to carry meaning, I think we should use all available means” (237-239). In her defense of multimodality, Anna drew on Aristotle’s (2007) celebrated definition of rhetoric as “the available means of persuasion” (p. 37). Anna appears to also be influenced by arguments for the relationship between multimodality, diversity, and globalization made by social semoticians like Kress (2003) and the New London Group, as she used the concept of “difference” to support the place of multimodality in the classroom: “People have different uh skills and abilities and languages and cultures and um in order to communicate among these different all these different groups of people we need to take advantage of all the different channels of semiotic um activity that we can” (229-232). Anna’s attention to difference and diversity is also evocative of her transformative view of education.

For the protocol, Anna chose to read videos containing many “channels of semiotic activity” or semiotic modalities (including the print-linguistic, aural, visual, and spatial) composed by students in her upper-division Digital Media Production course. The “Concept in 60” videos were submitted during week five of the quarter and were the first major project in the course; however, Anna had seen the videos several times before the protocol during studio reviews in her classroom. During the interview, Anna acknowledged that she tends to “Identify for students what I'm gonna grade that assignment on” (265), and that she typically evaluates student work using criteria that have “a rhetorical basis” (267). Despite her general emphasis on rhetoric here and in her definition of multimodality in the interview, rhetorical criteria did not appear anywhere in
the contextual documents given to students. In her assignment sheet, for instance, Anna specified six requirements for students, none of which addressed rhetorical issues: videos were to be exactly 60 seconds long and conceptual in nature, adopt “a critical, reflective, and/or interpretive approach” to the concept, contain title screens and sources, and be free of original audio. Further, when Anna described the learning goals for the course in the interview during her interview, she did not mention rhetorical awareness at all but focused on students’ abilities to learn new technology, the documentary genre, and the research process.

Interestingly, rhetoric did comprise a rather large part of Anna’s protocol data. As she read, Anna often evaluated student work on the basis of specific rhetorical values, which were identified as *implicit expectations* because Anna only glossed the importance of a rhetorical approach and did not include specific rhetorical goals (audience, purpose, relationships, etc.) in her course documents or interview. During the protocol, for example, Anna emphasized students’ abilities to connect to the audience and to choose shots and music that contributed to the main message of the text in comments such as, “I also want to say um I'm also impressed um with um the way in which your music enters into a conversation with the video uh video shots” (48). Yet Anna was only marginally aware of the importance of a rhetorical approach in the interview, suggesting that she is not cognizant of the extent to which her rhetorical values seemed to influence her evaluative decisions. It is reasonable to assume that because Anna has been researching, assigning, and responding to multimodal work for so many years, her values may have become tacit and they therefore materialized as *implicit* rather than *explicit expectations*...
in the protocol. That is, while it may have been subconsciously clear to her that she valued a connection to audience in all multimodal work, this value may be such an ingrained part of her practice that she did not feel compelled to explain it in the documents that she gave to her students.

For Anna, multimodal composing has also always been tied to technologies. In her reflection on her first professional and personal experiences with multimodality during the interview, Anna emphasized the technologies she used: “I taught a class uh that used iMovie uh and uh we all learned how to use iMovie as uh how to use video as a mode of representation and then within iMovie um we often did still images and um students and I worked together to uh compose a poem that was uh that had um still images and voice-over in it. And then I got interested in digital audio and so I learned how to do that” (208-212). In her course documents, interview, and protocol, Anna’s expectations for the use of technology were predominately explicit. However, the actual connection between technology and multimodality was implicit for Anna. While she did not mention technology in her definitions of and justifications for multimodal pedagogy, she did make technology an explicit and critical part of her learning goals for the course, implying that experience with technological tools is crucial to students’ success as multimodal communicators. In her interview, for instance, she revealed one of her learning goals: “I want them to be able to um use uh the technologies that they need in order to create and compose uh documentaries of their choosing” (353-354). And in her policy statement for the course, she wrote that: “As we read and assemble a common base
of knowledge about documentaries—with a special focus on documentary as social activism—we will also be engaged in learning about the digital media tools.”

Early in the protocol Anna also confessed that one of her purposes when responding to the videos was to evaluate each student’s level of technical ability. This was an implicit expectation, because Anna did not communicate it in her contextual documents or initial interview. Yet it was a pivotal expectation because, as she reflected in her retrospective protocol, Anna used her judgment of students’ skill levels to shape her response to their work: “I tried to tailor the challenges that I provided to the amount of um experience media experience that I thought the student brought to the table there” (18-20). For instance, in this meta-commentary excerpt from the protocol, Anna noted that “So that technique is probably something I'd mention to him since he seems to be more experienced video um student and probably needs that sort of challenge” (38). In the protocol, Anna frequently commented on students’ skill using video production technology, but there were just three implicit technological expectations in her protocol because for the most part, she tried to relate technological skill to the form or content of the video. When one student exhibited experience and ease with shot-making, for instance, Anna connected that experience to its contribution to the message of the video: “He really has a continuity of, of shooting that gives you a sense of his concept, which is uh the change of seasons to fall, from summer to fall” (30). This is further evidence to suggest that, although Anna does not explicitly mention technology in her definition of multimodality, technological tools play an important role in multimodality but are used purposefully and rhetorically. Anna also emphasized the importance of using technology
in creative ways as she read the videos, praising students’ ability to work with the constraints of the technology in comments like “At the same time, I think of all the ones I've seen she's used the most inventive shots” (135) and “Uh inventive use of um time um tempo change” (176). Reflecting on the projects in her retrospective protocol, Anna commented that, “They're using just a little flip camera so you know it was a uh challenge in using trailing edge technologies in inventive ways and I like that” (72-74).

Additionally, in her policy statement for the course, Anna also highlighted the role of innovation, stating that “Experimentation, and creativity are central to this class.” For Anna, technologies are tied to rhetorical tools but are also meant to be used in creative rather than prescribed ways to account for differing purposes, messages, and so on; this is an integral yet implicit part of her beliefs about multimodality.

In Anna’s protocol and contextual documents lies an interesting paradox. While a belief in the important role of rhetoric in multimodality is evident in her interview and protocol, she does not appear to communicate the significance of rhetoric to her students. And while she makes clear in all of her documents and protocol the important role of learning and experimenting with technology for the course and assignment, Anna’s beliefs about multimodality do not explicitly address the role of technology. Yet a set of beliefs about multimodality informed by these sometimes-implicit perspectives on technology and rhetoric permeates her response practices.

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4 While it is possible that teachers like Anna may have communicated their *expectations* verbally to students during classroom interactions, this kind of observational data was beyond the scope of the study. Therefore, while the researcher assumes out of necessity that students were unaware of *implicit expectations* based on the contextual documents included as part of this research project, it is feasible that Anna engaged in a dialogue with students about her *implicit expectations* in the classroom setting.
Defending problematic practices: Susan as a professional (and) teacher

In her initial interview, Susan also described herself as “an early embracer of technology” and multimodality (59-60). Like Anna, she admitted that multimodality has been a part of her pedagogical practice for as long as she could remember. In both the interview and retrospective protocol, Susan relied heavily on her extensive experience as a teacher, writer, and technology user in order to generate a set of explicit expectations for the use of multimodality and technology in her students’ projects. She expressed great confidence in these explicit expectations and situated them as critical to students’ success in workplace contexts.

Susan opened her interview by reflecting, “I always wanted to be a writer. In fact, I am a writer” (4). As an author of historical fiction for children and young adults, Susan has published nine books and two audio books, as well as a myriad of shorter pieces for periodicals. She also worked as a freelance professional writer for several years and commented, “What I thought I would do is be a working you know full time working writer” (27-28). When local corporations began to experience economic troubles, Susan realized that writers like her would be the first to lose their jobs so she moved on to writing young adult historical fiction. It is no coincidence that Susan writes historical fiction or that she teaches writing. Her literate trajectory has been profoundly influenced by literacy sponsors in her life, most notably her grandmother and her parents. Her grandmother was a teacher who “had a house full of books. And she had a special love for historical fiction” (13). Susan grew up immersed in this genre and surrounded by teachers, as her parents were both educators as well.
While Susan planned to study writing at college, she ended up pursuing a Bachelor’s degree in English Education. She explained that her degree was a product of her parents’ influence as teachers and as a result of the fact that, during the early 1970s, women were “funneled into teaching or nursing” (45). After graduating with her B.S. Susan immediately went to graduate school to pursue an advanced degree. When she got involved in teaching as part of her graduate school fellowship, she found that she preferred teaching to writing: “I decided, well I really like this. This is much easier than writing” (92-93). Today, Susan is a non-tenure-track (NTT) composition professor at Institution A, a large research university in the Midwest. As a NTT, Susan often has a heavy course load; for instance, during the semester of this study she was teaching five courses. The course studied for this project was Business and Professional Writing, an entirely online upper-division class conducted through the WebCT VISTA platform.

During the interview, Susan often used her vast teaching and writing career to justify her pedagogical practices. For example, she contended that the writing classroom should be a space in which students engage in hands-on composing in the presence of an expert, their teacher. “And I think, I know that that works because I’ve been doing this for more than 30 years,” she remarked (102-103). Additionally, when Susan was asked about the first time she heard of multimodality, she responded “I thought it was a stupid word when I heard it” (117). Susan’s disdain is the result of the fact that although the word multimodality is relatively new, she claimed she had “been doing this all the time! I didn’t know that was anything new!” (118). In Business and Professional Writing, Susan maintained that she had long taught students how to effectively design their documents.
And in Expository Writing, another upper-division course, Susan had “always encouraged students to use...begin with photos” or other modalities like audio if they were not text-based learners (125-126). Susan’s pedagogy has included multimodality for an extended period of time, so much so that she could not fathom how multimodality could be separated from the teaching of writing: “I don’t see how you could take it out. It’s always been there” (180). Rhetorically, Susan characterized multimodality as important because it had always been present in her practices.

Susan also relied on her substantial expertise with technology as a means to establish herself as an expert (59-60). As a professional writer, Susan’s publisher asks her to maintain a website and a Facebook page. Susan has also been awarded a university scholarship on three occasions that gives instructors at her institution the space and resources to complete a research project related to technology and teaching. Susan used all three of her scholarships to explore the issue of multimodality, and with her last award she created multimodal learning modules for writing classes at her institution. Additionally, whenever she assigns her students a project that involves a particular technology, Susan makes it a point to learn how to use that technology herself. She remarked that, “I think that if you’re going to ask students to do these kinds of assignments, you owe it to them to learn as much about the technology and the programs they’re using as possible” (336-338). Susan referenced her personal experiences with technology, as well as her commitment to remaining up to date with technology in the classroom, when establishing herself as someone skilled at the technical aspects of multimodal composing. For instance, Susan claimed that she understood the issues
associated with sound projects because she learned the software Audacity to produce her own sound project. She also fell back on her experience with technology as well as her own observations of others using technology in professional contexts to justify the role of technology in the workplace. Specifically, for her business students, experience with presentation software like PowerPoint is imperative if they are to be successful communicators. “I know it’s the presentation software of record for business,” she reflected in her interview (345-346).

Susan chose to read the PowerPoint research progress reports created by her Business and Professional Writing students during the protocol. The reports were due a little more than halfway through the semester during week eight of the course and followed the first major writing assignment, the research proposal. Susan was therefore already familiar with students’ writing and research topics when she assessed their progress reports in this study. In her interview and course documents, Susan identified audience awareness as one learning goal for the assignment: “In terms of content I’m looking at if they’re giving enough information so that anybody not knowing what they were doing from the outset” (306-307) could “understand what they are doing” (309). The rest of the standards important to the successful completion of this assignment pertained to the use of PowerPoint software and implementation of design rules outlined in the required tutorial (335-336). The tutorial addressed proper layout for business presentations in PowerPoint, including issues like consistency in design, size of typeface, guidelines for use of images, and templates. One rule in the tutorial that Susan also mentioned in her interview was what she termed the rule of seven. “I subscribe to the rule
of seven. You know, that seven words or seven lines or no more than 49 words on a slide or it’s overwhelming. But I’ve also seen the rule of ten and you know the rule of three” (319-322).

These PowerPoint criteria or expectations are attributable to Susan’s sense of expertise and teaching philosophy, which is founded on an apprenticeship model. As a result of what Susan has experienced, read, and seen, she is cognizant of what it takes to be a capable professional and business writer, and her obligation is to initiate students into that world by teaching them the norms and rules associated with writing in professional and business contexts. Susan urged students to conform to very specific standards in order to construct products that would be accepted by professional communities. As she argued in her retrospective protocol, “I mean we know what viewers expect from these presentations, and they expect fragments not bullets and um you know animated transitions and animated. I mean, you know they expect those things” (110-112). These criteria or explicit expectations for presentations dominate Susan’s protocol and are predominately static and based on form, considered to be constant across time and acceptable regardless of the specific business audience or context. Susan has developed a prototype of the ideal business reader based on her expertise, and what Susan expects from a text is also what that ideal reader is presumed to expect. As her protocol and contextual documents illustrate, Susan understands apprenticeship as the process of teaching students to create texts or use technologies in conventional ways to achieve workplace success.
Although Susan is confident for the most part in these conventional, *static explicit expectations* and relies on them as she reads, she admitted in her interview that she sometimes encounters two student texts that have both met her criteria but one is somehow more effective than the other. “So there are, there’s just shades of gray, really. Some are really just wonderful and you know it in your gut right away you know” (207-208). Susan assigned points for projects that complete her criteria, but confessed this does not indicate that the projects are equally “good,” at least for the PowerPoints she graded in her protocol (207). For instance, in her protocol Susan was puzzled by a student text that failed to meet some of her *explicit expectations*, but at the same time contained positive qualities not accounted for by her *explicit expectations*. Upon seeing this, Susan adjusted her assessment process: “I kind of backed away from my own rule about taking you know that point off that I was that I would have on somebody else's” (151-152). When I asked her during the retrospective protocol what it was about the project that kept her from taking points away, Susan explained that the organization was “good.” She went on to say that, “Yeah, there are some you know it's like like a book. You know what works and what doesn't. And when you're reading any kind of text, it's not just a multimodal text but. And I'm not always able to articulate why. You know I know what I like and it's probably different for other people” (152-155). Susan saw something in the student’s organization that she “liked” but felt unable to “articulate” why she liked it using her explicit criteria; in other words, her *implicit expectations* for organization surfaced when she saw this student’s work. When faced with making decisions like this one about the quality of multimodal texts, Susan relies on set criteria but recognizes the
flaws in this approach: two students may both follow her directions perfectly and meet all criteria, but one student’s text might just seem better. While she was certain that her explicit expectations were tailored to the needs of the ideal business reader, she also admitted that while she tended to stand by those expectations in her reading, they could not always account for what made one text more effective than another.

“If your house is clean, nobody notices”: Form and inexpertness in Marie’s teaching practices

Marie works with Susan at Institution A where multimodality is a required component of many writing courses. As the Assistant Director of the Writing Program, Marie is responsible for interacting with other teachers in the department on professional issues like multimodality and, in addition, teaches her own classes. Multimodality was a gradual process for both Susan and Marie, but while Susan characterized herself as an “early adopter” of technology Marie reinforced her discomfort with technology throughout her interview. Although multimodality has become a regular part of Marie’s practice, she also admitted that at times she experiences difficulty evaluating her students’ multimodal texts. As a teacher with over 30 years of experience, she has learned to rely on her knowledge of how print compositions function to evaluate multimodal texts, but her protocol data reveals some fundamental contradictions between her articulated approach and her actual practice. In her interview, she claimed to downplay the importance of grammar and formal features in print texts during unless they are interruptive, stating that “If your house is clean, nobody notices” (830). Yet in her
protocol, Marie’s expectations were heavily biased toward form. Specifically, they focused on formal consistency, an expectation that can be likened to grammar in print-based texts and may be attributed to Marie’s self-perception as an older teacher struggling to keep up with “new” compositional practices and technologies.

Marie always knew she wanted to be a teacher. Growing up in the Midwest, she loved to play school with her sister and remembered that “Everything about school intrigued me” (123-124). She earned confidence in her dream during high school when, after giving a lengthy presentation to her class, her teacher approached her and said, “Did you ever think about being a teacher?” And I said, ‘Yes, well as a matter of fact I have.’ And he said, ‘Go for it’” (132-134). Although Marie wanted desperately to be a teacher, she “was a farm kid who my parents never really thought I’d go to college” (67-68). Money was tight in her family, but Marie worked and used her savings and what her parents could contribute to attend a four-year university. After graduating with her Bachelor’s degree in English Education, Marie began teaching high school. She described her student teaching experience as “horrifying,” explaining that her mentor did not prepare her to teach on her own so that when she got her own classes the next year she was dumbfounded about how to proceed (282). She learned she had to spend a lot of time on lesson plans: “I worked very hard. I was always up till twelve or one in the morning” (307-308). Marie worked as a public school teacher for several years before she became pregnant and was forced to quit her job.

Marie stayed home to raise her family for many years before she decided to return to teaching. She tried to get a job in the public school system again but was unsuccessful.
At the urging of a friend, she interviewed for a job teaching Basic Writing at a metropolitan university in the Midwest. Although she did not have a Master’s degree, Marie was hired and the school paid for her to take graduate courses in English. She was introduced to composition theory at this time and found “I began to love it” (26-27).

“And suddenly I was looking at student writing and I knew these kids were intelligent,” she said (28-29), “And I thought, you know, how can I help them figure out what they’re doing in their writing” (31-32). Marie took several linguistics courses and ended up writing her Master’s thesis using a linguistic analysis to understand basic writing patterns. She said, “Linguistics helped me a lot. Because it helped me understand what kids were trying to do” (343-344). After graduating in 1985, Marie applied to teach at Institution A and was hired immediately. She quickly fell into an administrative role, first working with tutors and directing the Writing Center and then helping to reform the Basic Writing program and train its teachers. Today, Marie is the Assistant Director of the Writing Program at Institution A. “As much as I love teaching,” she confessed, “I probably love this as much too” (320-321). Marie also continues to teach in the Writing Program. The course under study for this dissertation was an online section of Expository Writing, an upper-division course that Marie and her colleagues had recently developed to incorporate multimodal and service learning elements.

Marie expressed confidence about the place of multimodality in this course and others, reporting that multimodality has “gradually” become a standard part of her practice (426). She first integrated multimodality in a Business Writing course by having students incorporate visuals into their texts. Later, she decided to ask her Argumentative
Prose students to add “some picture that moves your argument forward, uh, helps that argument because visualizing it is easier for your readers” (387-388). She added, “But the picture has to move your readers. It can’t just be oh that’s interesting why’s that picture there?” (391-392). Marie has continued to build on the amount of multimodal work her students do with every semester, saying that, “I think our kids are very visually oriented. And I’ve just sort of gradually added more and more and more” (409-411). As the Assistant Director for the Writing Program at Institution A, Marie has noticed that for some teachers the transition has been more difficult. Multimodality became a required part of the curriculum in 2006, and she observed that it has been easier for graduate students to adapt to the change than some of the older teachers, for whom the change was “very jarring. They had not thought of uh visual text in relation to the written text at all” (430). Many of these instructors are part-time instructors in the program and although Marie has tried to reach out to them through professional development activities like brown-bag lunches, to her dismay they have proved to be resistant. “People don’t want to talk about it,” she said (443). “I mean it’s just strange. They have what they do and they don’t want to change it” (443-444).

The need for change is observable everywhere, according to Marie. “I guess from the beginning I’ve looked at new material and said, ‘What’s coming?’ I don’t care what’s been back there. And I don’t think just because we’ve always done it one way means that we always have to. It doesn’t mean this is bad it means this is we can improve it, we can rethink it, we can look at it” (456-460). Marie cited several motivations for the inclusion of multimodality in the classroom. Multimodality is a practice endorsed by professional
associations such as the Writing Program at Institution A, the state’s Board of Regents, and the National Council of Teachers of English. Yet it is also a practice prevalent outside of the classroom. Marie demonstrated this last point by referencing her daughter-in-law’s experiences composing visual texts in the business world. She said, “And they’re in business and that’s just…a visual text is just as important as a written text” (418-419). The predominance of multimodal texts is also confirmed by what Marie has seen around her in professional contexts. “There’s none of it that’s solid text anymore,” she admitted (512-513). In her defense of multimodality, Marie tended to emphasize the role of the visual saying that, for instance, “Text is sometimes needed but often pictures are” (516-517), and that “We have to realize we’re in the visual” (520-521).

Although she characterized multimodality as a sound pedagogical practice, Marie confessed that she often feels that she has to work harder at it than younger teachers for whom technology and multimodal composing has nearly always been routine. “It’s a little hard, you know. I’m not a kid. I won’t pretend that I’m back there where you all are,” she said (244-245). Marie repeatedly referenced her discomfort with new technology throughout the interview. At one point she related a story of the difficulties she faced when a doctoral student taught her to use the computer for the first time, remarking that, “I’m used to the typewriter. So when I made a mistake either I backed up or I hit whatever because I had a typewriter that had a little screen and I backed up. And she kept trying to get me to move the cursor back and I couldn’t figure it out” (142-145). Many years later in 2004, the department chose to offer her a scholarship to attend the Computers in Writing Intensive Classrooms (CIWIC) workshop at Michigan Tech
University. Upon hearing the news, “I thought, why are they sending me here? I’m not the most qualified tech person” (147-148). Marie described the workshop as intensive, and that she spent her time reading theoretical texts on multimodality and learning to use new technologies. She admitted that her projects did not turn out how she would have liked because of her lack of experience and commented about how impressive the other participants’ multimodal projects seemed to be. For instance, she described another participant’s project as “technically perfect. It was incredible. She had music behind it and sound I mean, you just sat enraptured with it. Uh but that’s that kind of technical training” (230-232). Marie did admit that the workshop helped her to become more comfortable with some composing technologies, saying that, “Technically, I probably jumped a lot. Even though I was technically challenged at the time. Still probably am quite a bit” (271-273). She reiterated throughout the interview that she tries to keep up with technology and scholarship in statements like “And I’m still learning, too. I mean, this whole thing with multimodal it’s really new” (140-142) and “I’m still learning that stuff. Uh so I understand the fear that students have about writing and about computers” (150-151).

Talking about and evaluating her students’ multimodal work has also caused trouble for Marie. In her retrospective protocol she reflected that, “The first time I was really, oh my gosh how do I write like this? I had to think about it and go yow. Um but then I began to think okay wait, you're a composition teacher. This is a composition of some sort. What are you looking for? How do these differ from paper? So it does, and yet there's some respects I think they have in common” (230-234). As Marie was describing
the learning goals for her assignment during the interview, a clear overlap between
criteria for effective print-based texts and multimodal texts was observable. In the
assignment, students had the freedom to choose the topic and modes and had already
identified those in a proposal submitted earlier in the term; these projects were the final
version of drafts to which Marie had already responded. In her assignment sheet, Marie
simply specified that students had to integrate research into their projects and direct them
toward the community center as an audience. During the interview, however, she
revealed some explicit expectations for the form of the projects she read during the
protocol. They were to have a clear “beginning, a middle, and an end. But any
composition has to have that” (538-539). Students were also to be aware of their audience
throughout the projects “So they had to look for readability especially” (723-724) and
“What makes it look professional to people that are going to come in and see this?”
(786). The absence of interruptive grammatical errors was also mentioned. Because each
student created a different kind of project, Marie said she was not quite sure beyond these
few explicit expectations what she might value: “I’m not going to know till I’ve seen it
what I’m really looking at” (845-846). However, she did also provide students with a
rubric that contained items addressing “critical thinking,” “organization and coherence,”
“mechanics,” and “mode of presentation.”

As Marie confessed in her retrospective protocol, she found the transition to
multimodal response to be eased by thinking about the similarities between
multimodality and print since they are both “compositions,” and in her interview she
stressed shared features like introductions, conclusions, and audience awareness. Marie
appeared to identify multimodal texts as compositions because she did not feel she has
the expertise to deal with them any other way; her sense of inadequacy when it comes to
technology and keeping up with new texts types can be seen throughout the interview.
During the actual response process, Marie sometimes evaluated student work on the basis
of these print-based explicit expectations, but overwhelmingly she relied on implicit
expectations regarding what she referred to as “consistency”; these expectations may also
connect to how she thinks about print-based texts. In the protocol, Marie mentioned
some variation of the word “consistent” (consistently, consistency, inconsistency) 37
different times, usually in reference to students’ ability to repeat the same form elements
or designs (for instance, fonts, colors, number, size, and placement of images). The term
often appeared in comments similar to, “And the lines she's got going around there's that
consistency” (77), or, “Again they're all set up, the fronts are set up so that we've got a
real nice consistency in the form” (286). For Marie, consistency indicates sameness or
repetition of form. Marie’s implicit expectations for consistency of form often guided her
reading process. She often read with the goal of monitoring consistency, posing questions
such as: “Do they do that all the way through?” (254), or, “I didn't notice that in the last
one” (54).

Marie likely gravitated toward consistency as she evaluated because it is an easily
identifiable feature, one that travels across the different types of texts that she initially
expressed some anxiety about receiving from her students. Consistency is also a feature

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3 Consistency is an implicit expectation because, although Marie did use the word twice in her interview in reference to grammatical consistency, in the protocol consistency usually did not refer to grammar (although when it did, it was coded as explicit).
that carries over from print-based work, where consistency of form has more to do with grammar. In the initial interview, Marie said consistent grammar was important because it gave the impression of a tidy house; so long as students were consistent with what they did, she did not seem to care if they necessarily followed the rules: “You don't need to uses commas toward the end. MLA asks for it, but if you don't do it, if you're consistent, I'll be happy” (836-837). Marie was accustomed to searching for formal consistency in print, so a transition to consistency of form in multimodal work seems natural. Bringing over a print-based feature like consistency into multimodal texts allowed Marie to feel that she had some authority over the decisions she made since she already understood the function and importance of formal consistency in print-based work.

Repetition of form, whether it concerns grammar or visual design, is obviously one of Marie’s core values. However, when she talked about form in her students’ multimodal work, she did so in predominately static ways, noting consistency of form or other formal features but not their connection to the meaning, purpose, or effect of the text overall. This is surprising in light of the fact that, during her interview, Marie reported that when she initially integrated multimodality into her other courses years ago, she made certain that her students knew that the modes contributed to the meaning of their work. Marie also emphasized audience awareness during her interview and reported that when she typically responds to student work, her guiding questions are: “What do they want to say to me? How well are they doing it?” (572). Yet in the protocol, less than a quarter of her expectations were concerned with content, or what students were communicating, and the dominance of static expectations suggests that only rarely did
Marie address how well students’ messages were conveyed. This gulf between articulated beliefs and practice may also be explained by Marie’s level of discomfort with technology and multimodal texts. It is much easier to identify formal features like consistency in a text—and even easier to talk about those features in static ways—than it is to connect those features to the message being communicated or how well it is communicated. This is especially true for a reader like Marie who does not appear to feel qualified to make more dynamic judgments about texts that she herself has difficulty creating.

Marie’s enduring interest in her students and what they have to say, however, can also be found in her protocol data. This interest first became evident during her work in her Master’s program, when she attempted to apply her linguistic knowledge to better understand basic writing. It continues to be apparent in her claims for the important role of multimodality in students’ lives beyond the classroom. In the interview, Marie remarked that when she responds “I’m a monologue but I need a dialogue,” and in her protocol she frequently engaged in dialogic behaviors with the text (638). She integrated more personal engagement and reader reaction comments into her assessment process than every other participant except for Joe; 25 percent of her protocol was comprised of these behaviors. This tendency suggests that Marie valued a dialogue with the text, the student author, and the ideas that are present. She saw her role as both an teacher and a reader. Marie’s attempt to connect with students through their work is interesting in light
of the fact that she was teaching an entirely online course and had never met her students face-to-face.  

**Multimodality in the supporting role: Multimodal texts as a means to an end in Joe’s classroom**

Like Susan and Marie, Joe also teaches at Institution A. However, Joe is a tenure-track literature professor and has only been teaching for 11 years. Joe’s teaching philosophy is focused on helping students to master complex ideas and showing them how to represent their own ideas using logic and evidence. Multimodality was introduced to Joe as a tool to help facilitate students’ growth and understanding and, since these goals were already important to Joe, he quickly adopted multimodality in his teaching. Students produce and consume multimodal texts in Joe’s classroom to better grasp print-based concepts or to re-present their print-based texts. For instance, Joe makes frequent use of videos and images to explore social issues raised in literature and, in the course under study in this dissertation, Joe’s students have authored PowerPoint representations of a collaborative, print-based research project. Unlike other participants, Joe does not understand multimodality to be a critical skill or strategy for students’ futures; instead, he views it as a popular culture phenomenon and a pedagogical tool to help students reach a greater level of consciousness about print-based ideas.

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6 Three participants in this study were teaching entirely online courses: Marie, Susan, and Aaron. While Marie and Aaron tended to engage in frequent dialogue with students through their response, Susan notably refrained from mentioning her students, their ideas or abilities, or their previous work. This suggests that the tendency to engage with students in personal ways during the response process is probably not affected by whether or not the course is delivered in a face-to-face or online setting in this study.
Joe became involved in the study of literature as an undergraduate in the American Civilization degree program at a large university in West Africa. As part of the program, Joe had the opportunity to study American Literature in the United States. After graduating, Joe began a Master’s degree program in American Studies at a large research school in the Eastern U.S., writing his thesis on *A Raisin in the Sun*. During his tenure as a M.A. student, Joe was granted a fellowship so he did not teach. It was at this time, however, that he realized he wanted to be a teacher when he was inspired by the interactive and compelling style of one of his own professors. At one point in this professor’s class, Joe gave a presentation and tried to emulate the teacher’s style. “I uh practiced so the same kind of passion. And one day one of my [teacher] told me, ‘Joe you are a natural born teacher.’ [Laughs.] It never left me, you know? So in the mean time I was I guess he just meant it as a compliment. [Laughs.] But I took it seriously” (155-158).

After earning his M.A., Joe began both his Ph.D. program in American Studies and his teaching career at a research institution in the Midwest. There, Joe was a French instructor for a year before being asked to teach Cultural Pluralism in America, a course he describes as a hybrid between a Cultural Studies and Literature. He taught this subject for four years and after graduating with his doctoral degree secured a job teaching at a public liberal arts and sciences college in the Northwest that he described as “student-centered” (241). At this college, Joe said that, “teaching started becoming really interesting” (211). Joe frequently co-taught courses with faculty across the disciplines there, but was also allowed to apply his interests in multicultural literature and African
American studies to create new courses: “So they allowed you to really even experiment in like a uh subject that you were passionate about” (230-231). The college also emphasized the importance of sound pedagogy, and one of the pivotal texts that the faculty was required to read and implement was *Teaching With Your Mouth Shut*. Joe says that in the book, the “theory is that the faculty, the professor should not be doing all the talking. You know they should let the students do as much of the talking. You know the faculty can just facilitate the discussion” (241-246). Joe left the college four years later for a tenure-track Assistant Professor position in Pan-African Literature and Culture at Institution A where he has been teaching since 2006.

Joe’s teaching philosophy is heavily influenced both by his experiences as student in West Africa and as a professor at the Northwestern public liberal arts college where his career began. In West Africa, Joe reported that lectures, difficult exams, and a view of knowledge as fixed were emphasized. He claimed that at the university where he earned his Bachelor’s degree, “professors believe that there is a certain set of information to acquire, to gain you know” (173-174). Although Joe did well in his studies in West Africa, he did not believe the educational environment was conducive to learning or representative of how knowledge truly functions. “Of course I know would say no, there’s nothing there isn’t like an extant rigid, uh, you know, uh kind of set of knowledge you must have in order to function well in life,” he argued (163-165). Instead, Joe contended, “everything is relative, everything is subjective knowledge depends on the environment in which it is constructed the purpose for that it serves, you know. That therefore one must teach students to ask questions and learn that way from their own
interpretations of meaning rather than from the knowledge that the scholars what a professor thinks is right, you see? [Laughs.] And knowledge is not like a set of ideas that you bring in a bag together, and expect to indoctrinate people” (165-171). Joe reiterated the importance of the flexibility of knowledge and conversation in the classroom throughout the interview.

It is evident that based on his experiences as a student at a West African university and a teacher at a student-focused liberal arts institution, Joe understands the act of teaching as the construction of knowledge with students rather than the imparting of a pre-existing body of knowledge upon students. During the interview, he related several examples of debates his students had recently had in the classroom with each other and with him over complex issues like racial equality. Rather than stressing which point of view was correct or incorrect to students, Joe emphasized that “the goal of the academic activity is for us to back up our arguments, you see? Like, as a teacher I am not here to indoctrinate anyone. I’m not here to like give you a gospel truth” (514-516). He continued, “So now our responsibility as scholars is to find out what academicians are saying about what we believe…and pull from their work as we discuss our ideas” (517-519). Later on in the interview, Joe also noted that he teaches students to use arguments to back up their opinions. “I want them to intellectualize, you know, even in the classroom when we debate and things, I want them to be instead of just like just it’s okay to have passion, but it’s also okay you know to it’s better to represent to express that passion through logic” (702-705).
To help facilitate debate and conversation in his classroom, Joe often turns to multimodal texts. He was first introduced to the concept of using multimodal texts to enhance the learning process as a doctoral student. One of his mentors “really encouraged us to use documentaries and films and you know PowerPoint presentations and uh, images and anything we had to help students better understand the topic you know” (320-322). Today Joe emphasizes the use of multimodality in helping students to grapple with complex texts and ideas. For instance, in a course he was teaching during the semester of his protocol, students read *A Raisin in the Sun* but also watched the film because, “The students would never really understand that there was a social and economic inequality. They would not fully understand that until they watch the film” (374-376). On the production end, Joe also said he often asks students to prepare PowerPoint presentations, usually to present the content of essays that they have already written.

For the course under study, College Writing II, students were writing collaborative research essays and prepared presentations to share what they had learned with the entire class. Joe provided no formal specifications for students about the shape or format of the presentation. In a follow-up email, he explained that he did give students oral suggestions about “the kinds of things they could do in the presentation of their research. For instance, I told them that they could identify and use audio and visual aids such as film scenes, documentary segments, songs, PowerPoint presentations or any other media to support their research paper presentation.” In the interview, one of Joe’s learning goals for the presentations was to show students what it was like to teach a group of people something. He also wanted students to have experience using computer
technology and creating texts beyond the written in order “to know that written text is not
the only text. Because it’s not the only text. I mean especially now, with popular culture
so important and central to life, you know?” (566-570). Joe associates multimodal texts
with popular culture and admired work being done by scholars at other universities to
“intellectualize” multimodal texts: “Um…because they always kind of give meaning to
texts…all varieties a variety of texts. Not just written texts, you see. And they write about
them, they intellectualize them, you know” (576-578).

Based on the interview data, it is apparent that Joe conceives of multimodality as
an instructional tool that can help students to become better writers or thinkers; in other
words, multimodality functions as a means to some learning-based end associated with
the production or interpretation of print-based texts. Joe was introduced to multimodality
as a vehicle “to help students better understand the topic,” and this use of multimodality
persists in his classroom practice today (321-322). He also acknowledged that
multimodal texts are a popular culture phenomenon that can be brought into the
classroom and “intellectualized” through writing; this implies that Joe does not think of
multimodal texts themselves as possessing academic or “intellectual” qualities. While he
encouraged students to analyze multimodal texts in writing, when students actually
created multimodal documents in his classroom it was typically to share or to summarize
the results of a written composition, as was the case with the assignment under study for
this project. As he read students’ multimodal texts in the protocol, it is perhaps not
surprising that Joe tended to value what was being said through writing rather than
through other modalities or the interaction between those modalities. He recognizes
images as illustrative, making comments that suggest images support the written text but are not capable of making an “intellectual” argument on their own. For example, Joe often responded to the “realistic” or “emotional” qualities of students’ images: “You know I really like the fact that these pictures capture the emotion of the you know the homeless individuals that are being depicted here” (24), and, “And these pictures are surely realistic” (41). When Joe talked about the relationship between images and text, it was nearly exclusively in terms of how the image illustrated the text or how the text defined the image. He often expressed a wish that students had provided more writing to contextualize the images in comments such as, “I don't know which country it is, but they don't even contextualize the picture” (49), and, “You know again without a context I cannot tell the location from which these pictures come” (65).

Because Joe constructed so few explicit specifications for students’ projects in the interview and contextual documents, it is not shocking that implicit expectations dominated his protocol. The majority of these implicit expectations were focused on content and reveal Joe’s biases toward multimodal texts. Joe is a literature professor who expressed a motivating concern throughout his interview for students’ ability to use academic material to create sound written arguments, and although these texts were assigned in the writing classroom Joe approached response from a literary rather than a rhetorical paradigm. He did not express a concern for the effect of the composition on the audience or for the relationship between form and content and meaning (as evidenced by the general lack of dynamic expectations in the protocol). Instead, his protocol was driven by expectations for the content presented, especially the use of sources and examples to
support ideas. Joe made relatively few expectations for form, and when he did those expectations were constructed around formal print text features like grammatical errors or research conventions. This suggests that Joe interprets the form of a multimodal text to be a container for content.

Joe’s teaching philosophy is focused around conversation and the use of logic and analysis, and he looked for these features in the writing portions of his students’ work during the protocol. He recognized the goal of academia is not to find the “right” answers but to be able to back up ideas several times during the interview and, as he read, Joe formed implicit expectations related to logic and argument including the proper use of sources and examples. Joe pointed out flaws in the logic of students’ written arguments, which typically revolved around students’ inability to thoroughly analyze texts or represent their beliefs. “So this is a problem I have with some of the students. Like when they discuss an idea or they write about it, they don’t necessarily kind of use or analyze in terms of logic, you see? Or even contradictions within the logic of the text or you know they don’t see that” (139-141). Although Joe obviously values logic in print-based texts, he did not address the logic of multimodal elements in his students’ work during his protocol. Joe’s aversion to multimodal logic likely originates with his belief that multimodal texts are not “intellectual” and need text to accompany or contextualize them.
Connections and contradictions: Multimodality, technology, and writing in Aaron’s teaching

Aaron and Joe have both been teaching for 11 years and although they work in vastly different institutions, departments, and states, they both highly value print texts. For Aaron, this value is communicated through his behaviors during the protocol and is also hinted at in his explicit beliefs about multimodality, which he defines as the relationship between “writing” and other media and/or technology: “I always think it has to do with sort of the ways in which uh writing interplays with different media especially when it sort of becomes electrified through web things” (232-234). Like many participants, Aaron was an early adopter of technology and multimodality and has been producing multimodal texts using computer technologies for personal and professional purposes since he was a graduate student in the early 1990s. In spite of his extensive experience with multimodality, in his protocol and assignment Aaron focused heavily on the written component of the multimodal project, attentive to students’ ability to make content-based connections between verbal ideas.

Aaron went to graduate school because he knew he wanted to be a college professor. He attended a large public university in the Northeast for his M.F.A. in creative writing, and as part of his assistantship was required to teach. Aaron felt slightly underprepared for the task. As he described it, “it never occurred to me that I would teach. The idea of being a professor occurred to me, but the idea of being a teacher didn't necessarily occur to me” (75-77). Yet, “They kinda threw me in,” and after a few days of talking with his faculty mentor Aaron began teaching a section of first year writing (80-
After graduation, Aaron continued to teach part-time at his M.F.A. institution and also found a job as a writer creating multimodal texts in a professional context. “I was working for a state agency in Virginia that dealt with student loans. […] So I you know developed a uh I worked on a newsletter and I did all kinds of brochures, and worked with forms and manuals and all that kind of like layout and and lots you know lots of stuff like that” (253-256). What got Aaron the professional writing job was his familiarity with computers and with the desktop publishing software PageMaker. Aaron confessed that he was “always interested in computer stuff,” and as a college sophomore had purchased his first computer (96-97). He taught himself how to use some software, and during his tenure as an M.F.A. student he had the chance to learn PageMaker to create multimodal texts related to creative writing.

Aaron’s technological expertise was also solicited a short while later when he entered a Ph.D. program in Rhetoric and Writing at a Midwestern research university in the early 1990s. As a Ph.D. student, Aaron helped a faculty member teach an inaugural course on computers and writing. Because he was already familiar with computers and some software programs, Aaron’s expertise was invaluable. “I guess you gotta remember I started in ’93 as a Ph.D. student, and in those days the idea of doing computers and writing stuff was kinda odd,” Aaron reflected (113-116). Aaron found himself acting as a mentor more often than a mentee where technological matters were concerned, often helping other students and faculty with technology. Even when it came to his dissertation, Aaron’s expertise surpassed his advisor’s: “I mean my advisor uh all the way through my project never really quite understand what it was. She--she understood the theoretical
connection because she was a, you know, a theorist. But she didn't really understand the technology” (117-120). As an expert, Aaron was primarily self-taught. He admitted in his interview that since his time as a technical writer, he has found professional development workshops to be “useless” because he learns best by engaging with technology and because his level of expertise sometimes surpasses the level assumed by facilitators (110). “What I always do is basically I as soon as they start talking I just ignore them and mess with the software,” he confessed (125-126).

As a doctoral student in a Rhetoric and Writing program, Aaron observed two things right away that influenced his conception of the field. First, he noticed that his colleagues were thinking about writing in terms of rhetoric. Second, he perceived that his fellow students were really involved in technology. This was surprising to Aaron because “for me I just kind of always take it as a given that you know computer and writing. I never really thought that people actually thought about that as anything that mattered” (30-32). Presently, Aaron is a tenure-track associate professor at Institution C, a large public university in the Midwest where he has been teaching for 11 years. Aaron said that he considers himself a “rhetorician,” and, as such, often teaches courses on rhetorical theory (187); for instance, during the semester this study was conducted, Aaron was teaching a graduate-level course called the Rhetoric of Science. When asked to describe his philosophy of teaching, Aaron characterized his work in terms of rhetoric, rather than composition. “To me compositionalists are the ones who just say you know, ‘If we just love the kids. If we just love ‘em.’ And um I don't believe that. I mean it's not that I don't
love my students but I don't believe that that in and of itself is a very useful thing,” he commented (186-190).

Aaron also has made technology the focus of his scholarship, publishing several articles on the relationship between technology, teaching, and tenure. Most of the time, Aaron teaches technology-based writing courses at Institution C, including an undergraduate course called Writing, Style, and Technology (the course under study in this dissertation) and a graduate course titled Computers and Writing. Aaron also taught himself to use the website authoring language html during the mid 1990s, and today he maintains a webpage and popular blog about technology. He incorporates web-based technologies into most of his classes, and has emphasized the role of the web in multimodality. Multimodality is both supported and controlled by computer technology, according to Aaron. In other words, technology permits composers to do certain things with writing, including incorporating other “media” or modalities. Speaking about the course under study for this project, an entirely online section of Writing, Style, and Technology, Aaron said that “one of the mantras I have in there in that class is that your style is always impacted and essentially controlled by the technologies you use to um represent something” (235-237). Most of the students in the course were English Education majors and, as part of the standards outlined by National Council for Accreditation of Teacher Education (NCATE), Aaron was required to integrate multimodal assignments in the course. However, Aaron said in his interview that he usually has students compose some kind of multimodal text in every class: “It's the way that I incorporate it is I make them do it” (323-324). For his protocol, Aaron chose to
read a comic strip and written reflection, the third major project in the course due in the last month of the semester.

Based on the initial interview data, Aaron associates technology with multimodal composition. It is computer technology that “electrifies” writing, making combinations of multiple media possible. Because of NCATE mandates and his own goals for students, Aaron stipulated that the comic assignment be created through the photo sharing technology Flickr. Although Aaron admitted that one of his “mantras” in the course was that the multimodal texts students produced were always “impacted and essentially controlled” by technologies like Flickr, nowhere in his contextual documents, interview, or protocol does he discuss the constraints and demands of Flickr on students’ comics (237). Interestingly, as the instructor, Aaron imposes several constraints on the comic. In the assignment sheet, for instance, he specified that the comic must have less than 20 words and consist of the same image and different text for all panels, or different images and the same words. And as he read the comics during the protocol, Aaron rarely mentioned these criteria, nor did he construct any implicit expectations for the form of the comics that would relate them to the production technology. Instead, Aaron primarily reacted to the content presented in the essays and sometimes in the comics.

Aaron also granted that, aside from essentially being forced by NCATE mandates to ask students to create multimodal texts, he believes multimodality “allows students to look at a problem from a bunch of different angles” (293) and is also a means for “expanding their understanding of you know audience and conventions and different ways some--sometimes texts are more effective visually than they are textually and vice
versa” (298-300). In other words, multimodality can teach students principles of rhetoric such as audience. Aaron titled the comic assignment he read during the protocol “The Visual Rhetoric/Comic Assignment,” yet it is unclear from his course documents and protocol what the rhetorical aspects of the comic are. He did not address rhetorical issues in the specific instructions he gives for the construction of the comics; instead, he mentioned rhetorical issues in the guiding prompts for the essay component, in which he asked students to explain the purpose, audience, and choices they made when putting the comic together. Aaron was very forthright with students about the purpose of the assignment as a whole. In the middle of his instructions for the comics, he wrote that:

“The emphasis of this assignment is not on making great art or clever comics.

Rather, the goal is to make a simple comic that you can then write about in a thoughtful essay,” and at the bottom of the assignment sheet he also specified in bold that “The goal of the assignment is for you to think and write thoughtfully about the issues of ‘visual rhetoric;’ it is not to make great art.” In other words, Aaron conceived of the assignment’s importance in terms of students’ ability to articulate “thoughtfully” in writing how visual rhetoric works.

Aaron also required students to make connections between their comics and readings by Scott McCloud, describing his assessment procedure during his retrospective protocol as, “I look at their comics and then what I really doing is I'm reading their essay to find their connection to the to the readings. […] The assignment in in many ways the they multimedia part of it is not near as important as the non-multimedia, linear media part of it in terms of understanding the readings” (26-30). In the think-aloud protocol
itself, Aaron focused on how thoroughly students discussed the course readings and the relationship between the readings and their comics in their essays. Because Aaron expected “thoughtful” connections and ideas from his students’ essays, it follows that most of his expectations were content based and focused on the concepts students presented in the essays and comics.

Rhetorical in belief, but not in practice: Leah’s understanding of multimodality

Like Aaron, Leah admitted in her interview that rhetoric was a large part of her introduction to the field of Rhetoric and Composition. She claimed that rhetoric continues to influence her teaching and the way she understands all kinds of texts. Leah is also similar to Aaron in that they both were self-taught, early embracers of technology. In her interview, Leah remembered her fascination with technology as extending back into her high school career and her varied experiences with technology bleed into how she thinks about multimodality today. She affirmed the relationship between rhetoric, technology, and multimodality in her interview, but during the protocol Leah’s expectations were mainly static, focused on her students’ ability to conform to a set of established genre features. Clearly, a large discrepancy exists between Leah’s articulated beliefs, which focus on the role of rhetoric and technology in multimodality, and her actual evaluative practices, which concentrate around a static set of rules. Further, based on her interview and contextual documents, Leah does not seem to be aware of this incongruity.

Like Aaron and Susan, Leah admitted in her initial interview, “I’ve always been drawn to technologies—old and new” (153). She also claimed that she has “intentionally
incorporated technologies into my composing processes whenever possible, and when that could lead to the creation of multimodal texts it did” (156-157). Leah recalled that her earliest experiences with technology and multimodal composing dated back to high school, during which time she stated that there were three or four computers in her home. For the most part, Leah has produced multimodal texts for academic purposes and one example that she remembered vividly was “a video for a women's studies class as an undergrad” (152-153). After graduating with her Bachelor’s degree in English, Leah admitted “I thought I would be a creative writer, which didn’t seem particularly lucrative” (52-53). When her partner was offered a teaching job at a university in the Southwest in 2002, however, Leah was given the opportunity to teach English at the university as an adjunct if she agreed to begin coursework in a Master’s program. “I wasn’t really sure what I was getting into when I started teaching,” Leah said (17-18). “But after doing it for even a few weeks I knew that I needed to know more about what I was doing. So then I ended up doing a Master’s in Education” (18-19). Leah pursued both a M.Ed. and a Master’s in English and in these programs, Leah continued to be interested and engaged in computer technology, often teaching in computer classrooms and attending technology workshops. Leah completed a Master’s thesis on the integration of technology in the writing classroom. It was during her Master’s work that Leah also first encountered the term “multimodality,” but she said she did not grasp its pedagogical significance until a little later on when she attended the Computers in Writing-Intensive Classrooms (CIWIC) institute at Michigan Tech. She received funding from her school to attend, and she affirmed that the institute helped her to see “why I should incorporate
different modalities into my class. After I went to that workshop was the first time I incorporated a non-alphabetic print assignment into my class” (118-120). After graduating with her M.Ed. and M.A., Leah was accepted into the doctoral program in Rhetoric and Composition at Institution B. All of her graduate work has involved coursework in writing and technology. Leah has produced many multimodal seminar projects and at Institution B has “taken the classes on digital media that we have in the English department” (80-81). As a doctoral student, Leah’s technological expertise has often been called upon, and like Aaron she has acted as a mentor in technology-related programs for both English faculty and undergraduate students.

Leah’s proficiency with and emphasis on technology affects how she understands the definition and goal of multimodal pedagogy. She argued that the term “multimodal” is confusing because everything seems to be multimodal. For instance, in her retrospective protocol Leah explained that even sound is multimodal because “We edit it visually” (97-98). In place of “multimodal,” Leah prefers the term “digital media” to describe the work that she and her students do. She defined digital media as “using digital technologies to communicate. Also, looking at texts that have been created visually” (140-141). In place of stressing multiple kinds of texts or modalities, Leah focused on technological tools likely due to the fact that in her doctoral program, Leah has taken many classes and serves as an expert in “digital media”; it is quite possible that Leah has co-opted terminology used by faculty and other students in her program. Leah’s orientation toward multimodal or digital media texts may also be influenced by her great technological expertise, which can be traced all the way back to her high school
education in the 1990s, and her admission that she has persistently been “drawn to” technology. According to Leah’s philosophy, digital media makes the composing process more visible: “I’ve noticed in asking my students to do different kinds of composing projects is that the process of composing becomes so obvious with digital media, while it's sort of transparent with alphabetic print” (169-171). This purpose for digital media aligns with one of the learning goals that Leah had for her students, which was to acquaint students with composition and “when people do it, why people do it, how people do it” (188). While Leah also conceded that digital media exposes students to technologies they may need to use in the future, she found this argument “a bit problematic because I’m reluctant to see the composition class as a place for them to learn skills they will need elsewhere” (179-180).

Although technology has played a large role in how Leah has understood and practiced writing over time, what initially attracted her to writing was the study of rhetoric. As an undergraduate, Leah enrolled in a women’s rhetorics course and found that “I just really enjoyed discovering that there was a whole discipline with a couple thousand of years history talking about something I only knew intuitively” (27-28). As Leah moved on to graduate school and a teaching career, her passion for rhetoric subsisted. She admitted, for instance, that she often calls upon her rhetorical knowledge when thinking about how to frame and design the courses she teaches: “I go back all the time to my training in rhetoric because I do think that rhetoric offers a productive basis for talking about communication, both from a standpoint of reception and one of production” (105-107). In a follow-up email, Leah also explained that she believes
rhetorical principles transfer across types of texts and assignments. She wrote that, “In terms of my own pedagogy, I emphasize purpose, audience, genre, medium, rhetorical situation/context, the rhetorical appeals, kairos. […] I make a conscious effort to teach a multimodal assignment in the same way as an alphabetic assignment in terms of a grounding in rhetoric.”

Leah reflected that her teaching philosophy has evolved during her tenure as a doctoral student. Specifically, she has found that “I’ve moved away from trying to have very open assignments […] to focusing assignments a lot more. I guess I’ve found that constraints are actually helpful for students in some cases” (99-102). In the present study, Leah read audio literacy narratives produced by students in her First Year Composition course, which she described as a course for students whose exam and test scores were not high enough for them to move into the regular composition sequence but not low enough to require a basic writing course. Leah asked students to produce “a story about an experience you’ve had with reading and/or writing” in her assignment sheet. Students were then to read the stories out loud and record them as aural narratives. Leah gave her students very few of the “constraints” that she talked about above in her assignment sheet, specifying only the written draft be 750 words and that after recording the aural version, students should listen to it “to make sure it sounds okay before turning the recorder back in.” Although Leah admitted earlier that rhetoric informs most of her thinking about communication, she does not list any rhetorical questions, requirements, or “constraints” in her contextual documents. When asked about the learning goals for this assignment, rhetoric was also absent from Leah’s response: “I'm hoping they start
thinking a bit about the value of telling their own stories and the difference written language makes vs. oral” (276-277).

Technology is obviously a critical component in Leah’s multimodal pedagogy, and its importance is also evident in her protocol. Leah constructed two overtly technological expectations as she read, but many of her expectations for form were also closely related to the use of recording technology. For instance, on several occasions Leah commented on the quality of the recording or on the mistakes students made during the recording process in comments like, “She stumbles a bit there. It seems like she could have gone back over and smoothed that area out a little bit” (43-44). In her retrospective protocol, Leah acknowledged her tendency to comment on the use of technology in her evaluations of digital media projects. She admitted that she struggles with how to balance technical and rhetorical concerns in her assessment process. “And so I feel like that's an enduring question in my assessment is like, to what extent I like deal with the technical aspects of recorded documents” (10-12).

Leah commented on the usefulness and universality of rhetoric during the initial interview, indicating that although she does not explicitly mention rhetoric in her contextual documents or in her definitions or justifications for multimodality in the interview, she understands multimodality from a rhetorical standpoint. In the retrospective probe, for instance, she named audience awareness as a learning goal: “I want to teach my students to be reflective communicators, to um realize that their communication always has always already has audiences” (81-83). Another rhetorical learning goal present in the initial interview was the idea of communication as a
purposeful act: “My hope is that they can come to my class and we can talk about
composing--when people do it, why people do it, how people do it, when it's effective,
why, etc.” (187-189). In her protocol, however, few of Leah’s expectations attended to
rhetorical concerns. Instead, her expectations converged on students’ ability to follow the
set of genre conventions she had in mind. Although Leah said in a follow-up email that
she considered “genre” to be rhetorical, the ways in which she talked about genre in the
protocol suggest she had in mind a set of static, rather than dynamic or rhetorical
expectations for genre. For instance, in the protocol Leah primarily mentioned aural
narrative or “NPR” conventions like pacing, tone, and use of details in terms of her
students’ ability to execute them, rather than in terms of their effect or connection to the
audience or purpose. Leah does engage in a more dynamic or rhetorical discussion of
genre features at times, tying features like students’ tone of voice to the ethos it creates:
“So his tone is um a little awkward. It’s almost like, seems a little resistant” (67-68). The
overwhelmingly majority of the time, however, Leah’s expectations for genre features are
static.

Leah’s expectations for narrative genre conventions, which dominate the protocol,
are also implicit because they do not appear anywhere in the interview or artifacts. When
asked about her typical response procedure, Leah said in the initial interview, “Well, I
start by going back to the assignment sheet and the expectations I've tried to lay out for
the assignment” (206-207). In her assignment sheet for the project, however, Leah only
communicated two expectations: students were to tell a story about literacy and record it.
She also provided students with two skills they ought to be learning: “Remembering and
reconstructing past events, defining literacy.” Nowhere does she mention to students the importance of narrative conventions, although it is clear from the protocol that these conventions are necessary for the success of the assignment. Although Leah maintained in her interview that her response is usually guided by the *expectations* she has included on the assignment sheet for students, this study illustrates that she failed to articulate any specific *expectations* for students on the assignment sheet and does not seem to be conscious herself of the *expectations* that guide her reading.

Nearly three quarters of Leah’s protocol is guided by predominately *static implicit* *expectations* concerned with genre convention. This suggests that, like Susan, Leah believes that success is achieved by conforming to a set of standards or conventions. However, unlike Susan, Leah has an extensive educational background in rhetoric and multimodality and also expressed a very different set of beliefs during the interview.

### The inseparability of multimodality from academic activity in Sara’s life

Both Leah and Sara have been asked throughout their short professional careers to create and to teach students to produce multimodal compositions. While Leah appears to enjoy multimodal composing and keeping up with technology, Sara tends to characterize her experiences with ambivalence. It is perhaps not surprising that Sara defended the place of multimodality in the classroom in terms of its prevalence. According to Sara, multimodality is and will continue to be a critical part of students’ lives, and her job as an instructor is to show students how to produce rhetorically sound and responsible
multimodal compositions. Her emphasis on rhetoric likely stems from her graduate coursework, but is not frequently observable during her protocol.

Sara first heard of multimodality when she was working as an undergraduate tutor in the Writing Center at Institution A. The writing program at Institution A was being overhauled and multimodality was instituted as a required component of first and second year writing courses. As a tutor, Sara attended training workshops on the new curriculum with faculty and eventually worked with students on their multimodal projects. Sara was a math major when she first started tutoring, but after her colleagues at the Writing Center encouraged her to take writing classes Sara discovered that she wanted to become a writing center director. Upon graduating with a Bachelor’s degree in Science and Educational Studies from Institution A, Sara initiated work on a Master’s degree in Rhetoric and Composition at another public research university in the Midwest.

As a Master’s student, Sara went through an intensive mentoring program during her first semester in order to teach first and second year writing. After completing the training, Sara taught in a computer lab and was given a tablet computer. She also continued to work in the Writing Center, serving as the assistant director. In her retrospective protocol, Sara revealed that much of her Master’s degree coursework had multimodal elements and that she was often required to produce multimodal texts for her own classes: “They didn't give us a choice. We had to have online um portfolios, um teaching portfolios our first semester. That was our final project. And we always had to have a website for our students” (33-35). After completing a thesis on what Sara described in her initial interview as the “correlation between freshmen personality types
and their writing style,” she returned to Institution A, this time as a doctoral student in the Rhetoric and Composition program (24-25). There, Sara teaches College Writing I and II, almost consistently in a computer classroom. Both courses still have a required multimodal component. At time of the study, Sara was beginning her fourth year of teaching and her last year of coursework. Sara admitted that, as in her Master’s program, she has been required to produce multimodal texts in doctoral seminars at Institution A. She has also created several multimodal texts for recent conference presentations. “It definitely filters in a lot of what I do,” Sara remarked (22). In her personal life, Sara said she rarely engages in multimodality. “I like to make movies of pictures that I've taken throughout the year and send them to my friends. […] That and collages. Just image collages of pictures that I've taken of like friends and family. That's probably all that I really do outside of the classroom” (20-24).

Sara described multimodality as “something that they [students] encounter all the time, even though they don't really realize that they're always being exposed to it. And I still believe it's something that they're gonna be expected to do when they leave the university” (138-140). In her defense of multimodality, Sara drew on her own experiences as a student and teacher; in these roles, She has frequently been “expected” to engage in multimodal composition. In both of her advanced degree programs, Sara reported that she was required to produce multimodal texts, using language like “we have to” or “they didn’t give us a choice” to describe her experiences. And as a teacher and tutor in two different writing programs, she has been compelled to integrate and respond to multimodal assignments. Multimodality has indeed been something Sara has
“encounter[ed] all the time,” and she extended the value of her own professional experience with multimodality to her students.

In her interview, Sara acknowledged that multimodality is a practice students already engage in and noted that her job was to teach them “rhetorical purposes” for creating multimodal compositions (142). As a graduate student in a Rhetoric and Composition doctoral program that heavily emphasizes the role of rhetoric in communicative practice, it was anticipated that Sara would transfer some of that knowledge to her classroom practices. For the protocol, Sara elected to read her College Writing II students’ final projects, which were multimodal presentations of their ethnographic research projects. In her assignment sheet, Sara emphasized the rhetorical choices that students were to consider as they assembled their presentations. For instance, she specified that “The medium that you choose to represent your culture should have a rhetorical purpose.” In her initial interview, she added that the projects were “to sell and persuade their classmates to kind of join this group or at least try it out” (262-263).

Before the projects were due, Sara and her students engaged in a discussion about expectations for the assignment. Together, they generated a short list of criteria that included rhetorically-based points like “form reflects culture” and “interacts with audience.”

During the protocol, however, only 20 percent of Sara’s expectations reflected the kinds of rhetorical concerns that she emphasized in her interview and contextual documents. The great majority of the expectations that she articulated in her protocol were static in nature and focused on form, suggesting that despite her articulated
assumptions Sara evaluated her students’ work on the basis of a predominately conventional or aesthetically-based set of expectations. What is most significant about this imbalance is that overall most of Sara’s expectations were implicit expectations. That is, she did not appear to enter into the response situation consciously aware of a static set of values or expectations; as illustrated above, Sara appears to understand multimodality as a rhetorical practice and, indeed, most of her explicit expectations are dynamic. What is even more shocking about the presence of static expectations is that Sara actually rebelled against what she anticipated as the static use of PowerPoint software in her students’ projects. In the initial interview, for instance, Sara relayed a discussion she had with students about expectations for the final projects which included a debate about the affordances and constraints of PowerPoint. “A lot of them fell back on PowerPoint,” she said, although students “had a set of goals and objectives for the presentation as a class so if your classmates are going to use PowerPoint, what do you expect them to use to make it not a kindergarten template?” (267-270). Together, she and her students decided that PowerPoint was “limited” and did not allow for “creativity with designs.” As she read projects in her protocol, Sara also reacted against the limitations of PowerPoint, observing that her students were falling into a trend of separating images from text in their slides in comments like, “I think I would have liked it would have been better if she had not such a distinction between images and text” (96). In her retrospective protocol, Sara also lamented, “I was afraid of this, that PowerPoint was so ingrained in them how to do it that they couldn't think outside of it” (51-52). What Sara rejected were conventional, static arrangements that “limited” what students thought could be
accomplished with PowerPoint software. At the same time, Sara relied on many other implicit static expectations for form as she read, addressing issues like consistency of color, font, or slide design. Although it is evident that Sara frames multimodality in rhetorical ways in the interview and in her contextual documents, this rhetorical understanding only partially transferred into her response practices. Instead, Sara tended to focus on the formal features of students’ multimodal texts and relied on static expectations for those features as she evaluated them.

Avoiding the ‘fluffy bunny’: Robert and multimodality as a meaningful pedagogical practice

Robert was introduced to multimodality during his Master’s program in Literature at Institution A where he is currently enrolled as a doctoral student with Sara. Like Sara, he was required to take a course called Intro to the Field in which he was familiarized with salient issues in the discipline of Rhetoric and Composition, one of which was multimodality. Robert found that multimodality caused him to question how he understood writing and literacy, and while eventually he came to believe in the importance of multimodality for communication, he admitted in his interview that he still struggles with implementing it in meaningful ways in his classroom. As his views on multimodality and teaching in the interview illustrate, Robert is an introspective student and practitioner and his thoughtful pedagogical approach is also perceptible in his protocol and contextual documents. His set of predominately dynamic expectations demonstrates that for Robert, multimodality is not just what he calls a “fluffy bunny” in
the classroom, or something that is there because it is trendy or interesting—it is the necessary, rhetorical act of constructing meaning through multiple modes.

Robert credited one of his professors with introducing him to multimodality, and throughout his life other literacy sponsors have also inspired his professional and educational trajectory. Robert’s undergraduate and graduate professors, in particular, indirectly urged him to pursue a career in teaching and shaped his philosophy of teaching. Like Anna, Robert believes that education is a transformative process, but Robert’s reasons for believing this are based in his experiences as a student, rather than as a teacher. Although Robert grew up in a small town in the Midwest that he describes as “not diverse at all,” his Bachelor and Master’s degrees focus on multicultural literature (27). Robert reported in his interview that some of his college courses transformed the way he thought about diversity. In one English course in particular, Robert recalled being asked to read Toni Morrison’s book Beloved. “And I was like ‘Oh my God!’ It just tore my heart apart. And it made me reevaluate some of the assumptions and ideas I had about the world” (24-26). Robert had discovered early in his academic career that education—in particular, the act of reading literature—could transform the ways in which people thought about the world and about themselves. When Robert became a teacher himself, he confessed that he drew heavily on his transformative experiences with literature to frame the act of teaching: “I considered it in the same way that it affected me I mean that it has the power to change people's lives you know” (54-55). He added that “I wanted to make some positive changes. Um, and share some of the experiences that I had. Or
maybe recreate those with my students so that they could maybe change in some interesting ways” (57-60).

Robert also identified his educational experiences as his inspiration for becoming a teacher. While pursuing his Associate’s degree, Robert took an introductory composition course from a professor who he described as “very engaging” (48). He claimed it was both her disposition and the course content that led him to consider teaching as a profession. “She made me reevaluate a lot of things. Um assumptions that I had, things that I took for granted and I saw the power of that to change myself” (48-50). Robert first had the opportunity to teach during the second semester of his Master’s degree program in Literature at Institution A. There, he taught first year writing for three semesters. It was also during this time that he encountered another pivotal literacy sponsor in his life: a professor teaching a course in the Rhetoric and Composition concentration called Intro to the Field. In this course, Robert again found a combination of the instructor’s personality and course content to be influential. Based on his experience, Robert began to see that the study of Rhetoric and Composition might allow him to think more practically about achieving some of his transformative scholarly and pedagogical goals: “There was a nice I think resolution to the like the um agency and um I don't know oppressive powers debate that always had raged in Literature. […] I was really drawn to the empirical side of it and working with communities” (10-13). In part because of this experience, Robert is currently pursuing his doctoral degree in Rhetoric and Composition at Institution A.
It was in a course called “Intro to the Field” that Robert first encountered multimodality as well. He confessed that he was “pretty skeptical at first” (167). As a graduate student in Literature, Robert perceived writing as limited to the print-linguistic mode. “I couldn't conceptualize that there was any other way of meaning making,” he admitted (165-166). As the course progressed, Robert began to realize that “if writing is an act of meaning making, that means it's not just print linguistic. It's anything that creates meaning” (177-178). Robert defined multimodality as the use of multiple modes to “write,” which differed slightly from other participants’ emphasis on multimodality as an act of communication using multiple modes, of which writing is one. He accepted that students need experience in multimodal composition for their lives beyond the composition classroom, in settings like the workplace or courses in other disciplines. Although Robert believes that multimodality belongs in the writing classroom, he conceded that he is still troubled about how to implement it: “And you know I wanted to do it not just to do it, but for a purpose. And that was hard for me to do because I kept thinking, you know, how am I gonna do this? I wasn't sure. And so I think I'm still in that process now of figuring it out” (167-170). The introduction of multimodality in Robert’s professional life occurred nearly four years ago and required Robert to overhaul many of his values; for instance, he was forced to reconsider what “writing” meant to him, as well as how an expanded definition of “writing” as multimodal could be accounted for in the classroom in purposeful ways. That nearly four years later Robert is still working out how to incorporate multimodality in his pedagogy “in a way that's not um like a fluffy
bunny” is further evidence that Robert is hesitant to accept new ideas into his teaching without very careful consideration (180).

Robert’s understanding of multimodality is also unique in that it does not necessarily require the use of computer technology. Robert noted that he learned in his graduate coursework that multimodality is not “a new thing. It's not just because of our technology” (354-355). However, earlier in the interview Robert cited technology as one of the motivating factors for the prevalence of multimodality in students’ lives outside of the classroom: “in a global, information-rich technology, information slash technology rich environment, um, I think it's inevitable that students are gonna need these skills” (350-352). And in the assignment sheet for the projects he read during his protocol, Robert required that students use Microsoft Word “or other presentation software” to create their visual arguments. Although technology was a required component of the visual argument assignment, during the protocol Robert exhibited no technological expectations. Robert also used technology to justify the assignment to students, writing that “Due to new media technologies and globalization, using visuals in the workplace has become commonplace.” While Robert specified that technology is not a necessary component of multimodal texts, in his interview and course documents he relied on the prevalence of technology to establish multimodality’s importance. Based on protocol and interview data, Robert appears to be conflicted about the role technology plays in multimodal composing.

One thing that Robert was confident in during the interview was the relationship between rhetoric and writing. In the class he was teaching, College Writing II, he said
that, “Um, something that I keep emphasizing over and over is I guess the rhetorical nature of writing. I'll ask them you know ‘What is your purpose and what who is your audience?’ And every choice that you're making in your writing needs to be determined by those factors. You know what are you trying to do or think? You know, what changes are you trying to you know invoke in them?” (141-145). In his contextual documents Robert also pressed rhetorical awareness, specifying in his assignment sheet for instance that students were “to persuade a particular audience” by combining images and text that “work together to create an effect on the reader.” As he read and evaluated students’ visual arguments in the protocol, Robert primarily drew on these explicit expectations for rhetoric that he had described in the interview and contextual documents; of all of his expectations, 78 percent were explicit. Further, 65 percent of his expectations were dynamic, reflecting Robert’s rhetorical concerns about connecting the form and content of the text to its meaning, purpose, and effect on the audience. Robert’s protocol included the highest number of dynamic expectations by far among participants (closest to Robert was Anna, for whom 39 percent of her expectations were dynamic). Curiously, Robert was the participant who expressed the least certainty about and experience with multimodal pedagogy and was at the same time the participant with the greatest percentage of explicit expectations and dynamic expectations in his protocol in the entire corpus. This suggests that Robert has a clear idea of what he expects from his students’ multimodal work—even if, as a reflective practitioner, he is not completely satisfied with that system of expectations at this point in time. As he confessed in the interview, “And I
think each time I assign it, this visual argument, I find something new that I want to get out of it” (170-171).

Discussion

Based on a thick description and interpretation of teachers’ beliefs and their relationship to response practices in protocol data, three major findings emerged:

1. Teachers’ beliefs about multimodality are socially situated and stem from a variety of contextual factors.
2. The expectations that guide teachers’ response practices in the protocol data are also socially situated.
3. Teachers’ articulated beliefs about multimodality in the interviews and artifacts tend to conflict with their response practices.

The first finding illustrates that teachers’ articulated beliefs about multimodality are socially situated, stemming from a variety of contextual factors including graduate education, teaching history, technological expertise, and professional experiences (see Figure 5); this finding aligns with Hillocks’ assertion that teachers’ beliefs come from “a variety of perhaps disparate sources” including sources like published theory but also their own experiences as teachers and students (p. 37). Graduate education experiences contributed to participants’ multimodal theories more frequently than any other factor. Robert, for example, was first exposed to the concept of multimodality as a literature student in a Rhetoric and Composition in a graduate course a few years ago. Initially Robert found himself hesitant to accept multimodality, but as the semester went on he
discovered that both the readings and the professor helped him to rethink the role of multimodality in the meaning-making process. Robert’s present definition of multimodality, which distinguishes multimodality as the act of writing using multiple modes to convey meaning, was obviously motivated by this graduate education experience. Joe was also a literature student in a graduate program when he encountered the concept of multimodality for the first time. In a graduate-level teaching practicum, Joe’s professor advocated the implementation of multiple kinds of media to teach students course content. Joe immediately adopted this practice and during his interview he revealed that, as his graduate professor had recommended nearly a decade prior, he continued to understand multimodality as a means or a tool for showing students different aspects of a piece of literature or a complex idea.
At the time of the study, Leah and Sara were completing doctoral coursework in different Rhetoric and Composition programs, and both also mentioned the role of rhetoric when discussing multimodality in their interviews. In her graduate education, Sara confessed that she had often been required to produce multimodal texts. Perhaps not surprisingly, based on these experiences Sara characterized multimodality as something students were also going to be asked to do in their lives, highlighting the importance of rhetorical purposes for multimodality. Leah also referenced her formal training in rhetoric as an undergraduate and graduate student, noting that rhetorical principles often help her to shape her courses and to interpret multiple kinds of texts.

Prior teaching experience also affected participants’ multimodal beliefs. Susan and Marie both described multimodality as a long-standing part of their pedagogical
practice, claiming to have voluntarily integrated multimodal assignments and activities into their business and argumentative composition classes many years ago. Interestingly, while Susan used these classroom experiences with multimodality to defend the importance and prevalence of multimodality, Marie mentioned these experiences to illustrate that multimodality had been a “gradual” practice for her and turned instead to external sources like professional organizations to justify her practices. Anna’s beliefs about multimodality were also impacted by her early teaching experiences. Unlike Susan and Marie, Anna was required to integrate multimodality early in her career. This early teaching experience motivated her to reconsider her “restricted” ideas of literacy and writing and continues to influence her definition of multimodality, which she characterizes as a “broad” literacy practice nearly 30 years later. Although she does not hold graduate degrees in Rhetoric and Composition Anna has taught undergraduate and graduate courses in the field, and the influence of rhetoric is present in her emphasis on the relationship between multimodality and “the available means” of persuasion.

Teachers’ professional experiences, including professional development and observations in professional settings, also factored into their beliefs about multimodality. Both Marie and Leah attended the Computers in Writing Intensive Classrooms (CIWIC) workshop. While Marie noted that the institute helped her to improve her technical skill, Leah admitted that it affected her in a more profound way. During her interview, Leah confessed that the CIWIC workshop allowed her to see why she needed to integrate multimodality in her classroom, and when she returned to school in the fall she was inspired to create a multimodal assignment for the first time. Many participants noted that
they frequently attend conferences, but only Susan used her experiences presenting and attending at conferences to support her beliefs about multimodality. She justified the relevance of presentation technologies like PowerPoint in multimodal composition based upon the practices she observed professionals using at conferences. Joe also referenced recent scholarship in his field that analyzed television shows to bolster his claim that multimodality was a popular culture phenomenon that could be “intellectualized” through writing. Finally, both Marie and Susan drew on casual observations about the kinds of composing done in professional spheres to illustrate the prevalence of multimodality. Marie, for example, discussed the kinds of visual composing her daughter-in-law engaged in on the job in the business world.

The final contextual factor, which appears in Susan, Leah, and Aaron’s understandings of multimodality in particular, is technological expertise. All three participants described themselves as early adopters of technology, and Leah and Aaron related that their expertise has often been called upon in professional contexts. Because technology has been such an instrumental part of their personal and professional lives, it is not surprising that it is also an instrumental part of how they understand multimodality. Leah, for instance, insisted upon the term “digital media” in place of multimodality, advocating for the inclusion of composing technologies in her definition. Aaron also believes that digital technologies make multimodal composing possible and, further, shape and constrain the types of textual arrangements that are possible. Building on her experiences with technology as a teacher and professional writer as well as on her observations about how the business world utilizes technology, Susan claimed that the
proper use of communication technologies was critical to the success of a multimodal text. Conversely, Marie frequently situated herself as a technological neophyte in order to emphasize that multimodality and technology were continuing learning processes for her and her students.

The second major finding in this chapter is that the expectations that guide teachers’ response practices in the protocol data are also socially situated and can be traced back to contextual factors particular to each participant’s professional trajectory. In other words, both implicit and explicit expectations are social constructions, specific to assignments and contexts but also to particular readers and their preferences, philosophies, and histories. In Anna’s protocol, for example, several implicit expectations concerned specific rhetorical issues like audience. The emphasis on rhetorical principles in these implicit expectations is likely connected to the fact that, during her interview, Anna defined multimodality in terms of rhetoric more broadly as the use of “available means” and mentioned that she often relies on rhetorical criteria when she responds to student work. Anna’s explicit expectations, many of which had to do with students’ use of composing technologies, were also tied to context. For Anna, composing and technology have been interwoven from the early 1980s when she was a graduate student working on a mainframe computer to the present when she is teaching in the Digital Media Studies concentration in the English Department at her institution.

The explicit expectations in Susan’s protocol were predominately static and tied to form but were also based in long-standing practices in her career. The design rules that guided Susan’s explicit expectations were derived from her extensive experience as a
professional and business writing teacher, as well as from her own observations about what writers in the business world do. As she admitted in her retrospective protocol, Susan believes that her experience gives her the authority to make the claim that her explicit expectations reflect business readers’ needs and expectations. Although they occur only rarely, Susan’s implicit expectations address features that are outside the realm of the specific design rules that comprise her explicit expectations. For instance, when she read one presentation she noted with distaste that the student has included sound effects. She reacted negatively because the absence of sound, an implicit expectation, was also something the business reader would presumably expect. Again, Susan makes this judgment based on her experience as a teacher, writer, and scholar.

Conversely, Marie’s attention to her inexpertness contributes to the kinds of expectations generated in her protocol. Many of Marie’s expectations were static and tied to form, focusing on students’ abilities to produce formally consistent work. These expectations likely result from Marie’s admitted inexperience and uneasiness with multimodality and technology, which she primarily attributes to her age. In the interview, she confessed that she initially was not sure how to approach multimodal texts but decided that because multimodal texts were compositions, principles of effective print composition were transferable. For example, Marie noted the presence of beginnings and endings in her students’ multimodal texts, features carried over from print-based texts that became expectations for multimodal texts in her protocol.

For Joe, being an academic means learning how to defend an argument using logic and supporting material. His view of knowledge and education comes from his
experiences as a student in West African schools and from his first teaching job, which was at a student-centered liberal arts institution. During the protocol, Joe’s understanding of academia is evidenced in his explicit expectations, which focus on students’ use of outside source material in their presentations. Interestingly, although he teaches in a Writing Program that requires multimodal elements, Joe relayed that he has not had any professional development or formal coursework in multimodality and that the first time he heard the term “multimodal” was in the email asking for his participation in this study. Joe is not familiar with scholarship nor has he had any pedagogical training in multimodal composition and, as could be anticipated, very few of Joe’s expectations have to do with multimodal elements or relationships in the text. Instead, most focus on the content and logic of students’ textual ideas. When he does evaluate the images in the text, Joe relies on expectations that reflect his current understanding of multimodality as supportive of print text. This understanding was learned nearly a decade ago in a literature teaching practicum and continues to inform the ways in which Joe incorporates multimodality into his teaching practices.

Although it is often the case that teachers’ expectations are related to the explicit contextual factors in the interview data in obvious ways, at times the source of teachers’ expectations remains ambiguous based on the data available. A clear example of this can be found in Aaron’s protocol, which is saturated with explicit expectations that converge upon the content of students’ textual ideas; specifically, his expectations focus on students’ ability to demonstrate an intellectual grasp of the course readings in the essay accompanying the multimodal comic assignment. While Aaron does make these
expectations very clear to students, the origin of these expectations is less clear, as they contradict the contextual information that Aaron chose to share during the interview. Throughout his interview, Aaron stressed the important role of technology and rhetoric in multimodality, even labeling himself as “rhetorician” at one point. He has extensive experience creating and assigning multimodal texts in educational and professional settings, and yet as he reads he discounts the importance of the multimodal component of the text almost completely in favor of the content of the print-linguistic. Although his interview data indicates that he believes otherwise, these expectations are forged around the assumption that print carries most of the content in a text.

Many of Leah’s implicit expectations are also confounding in light of her contextual information. Like Aaron, Leah identified herself as a rhetorician, affirming the influence of rhetoric in her professional trajectory as well as in how she approaches multimodal instruction. She also connected multimodality to composing technologies, advocating the term “digital media” to describe the work she asks her students to do. Yet Leah’s implicit expectations, which dominated her protocol, focused on narrative genre conventions in distinctly static ways. While all of the contextual information in her interview indicates that Leah conceives of multimodality as a dynamic and rhetorical practice, her expectations proceed from the assumption that multimodality is a fixed and conventional practice. Similarly, in her interview Sara emphasized the importance of tying multimodality to rhetorical purposes. As a doctoral student in a Rhetoric and Composition program, Sara has also been exposed to rhetorical theory in her coursework and has frequently been asked to compose multimodal texts for seminar projects.
However, like Leah, Sara gravitated toward *implicit expectations* that focused on conventions or rules in *static* ways during her protocol.

Although Aaron, Leah, and Sara represent extreme examples, at least some of the *expectations* held by every participant were not clearly connected to the explicit contextual factors present in the interviews or artifacts. These *expectations* are still social constructions, of course, but the factors that might explain their source are not present in the existing data, which cannot possibly account for *all* of the contextual factors in a participants’ life (for instance, Leah may value aural narrative conventions because she is an avid listener of NPR, but this was not a topic brought up in the interview). Further, as Denzin (1989a) has noted, qualitative research reports are always comprised of “interpretations of interpretations” (p. 98). In other words, how participants’ understand their own lives and what they choose to share about their lives is one level of interpretation, and the other comes from the researcher’s organization and interpretation of participants’ self-accounts. At this first level of interpretation, it is feasible that participants are not fully conscious of what they value in or expect from student multimodal texts. They may be relying on an intuited sense of value that is activated only when they see, hear, or otherwise experience a feature they find effective or ineffective in a text, or that sense of value has become so ingrained in their practice that it is no longer available to them on a conscious level. In Leah’s case, for instance, it is possible that she may be an avid listener of NPR and has come to value the genre of aural narrative. When she heard those genre conventions (or the lack thereof) in her students’ aural essays, this value may have been stimulated.
The third and most significant finding demonstrates that the beliefs about multimodality that teachers articulated in their interviews and the expectations they implemented during the response process often differ. That is, teachers’ multimodal response practices and their beliefs about multimodality do not always cohere, although beliefs and practices are more aligned for some participants than others (see Figure 6 for a visual representation of the mismatch between beliefs and practice among all participants). Leah represents the most extreme example of this mismatch. She indicated in her interview that she integrated multimodal assignments in part because multimodality made the composing process “transparent.” Leah also stressed the utility of rhetorical concepts in helping her to process what she called “digital media.” In her protocol, however, Leah’s expectations were mainly static in nature and focused on textual convention, indicating that in practice, she conceives of multimodality as a rule-governed product rather than a process. The dominance of static expectations also signals that Leah does not apply rhetorical concepts like audience or kairos to multimodal texts as much as she believes she does.
A relatively high degree of mismatch was also observed between Sara’s beliefs about multimodality and her response process. Like Leah, Sara highlighted the role of rhetoric in multimodal composition during her interview, articulating that her work as a writing teacher was to help students see the “rhetorical purposes” for multimodality. However, as was also the case for Leah, Sara seldom applied a rhetorical lens when evaluating student multimodal work during her protocol. Her expectations were also overwhelmingly static, addressing consistency or the aesthetic appeal of formal features like colors and fonts in comments like “I still really like her background” (237), or, “Hmm not really sure I like the red with black on it” (40). For the most part, Sara’s practices did not integrate the kinds of rhetorical elements she outlined as critical both to her mission as an educator and to multimodality as a practice. Although Sara advocated aligning multimodality with rhetoric, her expectations instead situate multimodality within a system of formal conventions or features related more to her own personal tastes than to meaning or effect on the audience, suggesting that Sara’s beliefs about
multimodality in practice are constructed around conventions and aesthetics than rhetorical theory.

As was the case for Leah and Sara, rhetoric is also instrumental to Aaron’s beliefs about multimodality and Aaron even labeled himself as a “rhetorician.” According to Aaron, technologies also greatly affect the nature of composition and permit multimodal arrangements. During his protocol, however, Aaron almost completely ignored the multimodal components of his students’ projects and most of his expectations instead focused on the content or ideas in the print-linguistic essay that accompanied the multimodal text. His multimodal beliefs were barely discernable in his expectations, which seldom pertained to rhetorical issues like audience or effect and never attended to the relationship between the multimodal text and the technology used to create it. While Aaron’s articulated beliefs about multimodality reflect an understanding of multimodal texts as rhetorical and shaped by technologies, his evaluative behaviors during the reading process reveal an entirely different understanding, one that characterizes multimodality as secondary to print, the mode responsible for conveying content and substantial ideas.

In her interview, Marie’s beliefs about multimodality lacked the clarity of other participants’, perhaps because of her expressed uncertainty about technology and how to evaluate multimodal texts. Yet Marie’s practices exposed specific details about her beliefs that contradict what little she had to say about the nature of multimodality prior to the protocol. In her interview, Marie reiterated the importance of the visual in multimodality, and claimed to borrow concepts from print compositions like beginnings
and endings in order to understand multimodal texts. She also made frequent mention of composing technologies but did not clearly state what she believed the relationship between technology and multimodality to be. When speaking about print texts, Marie downplayed the importance of formal features like grammar but when she read multimodal projects in her protocol, Marie’s expectations predominately focused on form, typically in static ways. She approached each text from a formalist perspective, often noting students’ abilities to be “consistent” in their layout, font choice, or use of color but not connecting that consistency to the meaning or effect of the text. While Marie’s beliefs about multimodality remain opaque in the interview, a distinct understanding of multimodality as a practice governed by formal rules and conventions emerges from the expectations she relied on in her response.

Robert also defined multimodality in rather broad ways, characterizing it as the act of writing using multiple modes. Because his expectations do not necessarily contradict his beliefs, Robert is positioned toward the middle of the belief and practice mismatch continuum. During his interview, he emphasized his early struggles with accepting this broad definition of writing as well as his continued trials with implementing multimodality in “purposeful” ways in his classroom. Robert’s expectations in the protocol tied form and content to meaning and effect, reflecting his concern for making multimodality “purposeful.” Robert’s expectations were almost exclusively rhetorical or dynamic in nature and reflected rhetorical concepts like audience and appeals. In his set of beliefs about multimodality, Robert did not explicitly mention the role of rhetoric at all, yet the dominance of rhetorical expectations in his response
demonstrates that Robert approaches multimodality from a rhetorical perspective. Robert’s expectations appear to build off of the beliefs that he articulated in the interview, which emphasized the meaning-making process and the purposefulness of multimodal activity.

For the remaining three participants, Joe, Anna, and Susan, beliefs and practices were closely related. Joe, for instance, admitted that he initially adopted multimodality in his classroom as a tool with which to reinforce or extend the complex concepts present in print texts. Joe was very upfront in his interview about his understanding of multimodal texts as secondary to print. While they might be more capable of showing students the humanistic side of an issue, Joe conceived of multimodal texts as belonging to the realm of popular culture and as being “intellectualized” through writing. During the protocol Joe’s expectations, like Aaron’s, mainly concentrated on the content of the print-linguistic text in students’ multimodal projects. When Joe addressed non-textual elements, his expectations typically reinforced his beliefs about multimodality. Reading students’ images, for instance, caused Joe to express a desire for more text to explain what is going on in the image. This expectation reflects an assumption that images are incapable of standing alone or of conveying information without text, which aligns with Joe’s belief about multimodality as inferior to print.

Multimodality is informed by both rhetorical and semiotic concepts, according to Anna, who combined ancient rhetoric (“available means of persuasion”) and contemporary social semiotic theory (linguistic difference) to define the place and purpose of multimodality. In her interview, however, Anna did not address how more
specific rhetorical principles like audience or the appeals fit into her system of beliefs about multimodality, but these specific principles drive her expectations for student work as she reads. While Anna’s articulated beliefs indicate that she aligns herself with a rhetorical perspective on multimodality, her expectations solidify this assumption and illustrate how she understands the fit between rhetoric and multimodality. For instance, her expectations typically address the relationship between modes and the connection between that relationship and the meaning of the text. She also makes frequent note of the connection between the message of the text and the audience. Anna’s expectations reveal that she comprehends multimodality more specifically to be the purposeful, rhetorical combination of modes to achieve a desired effect on the audience or to contribute to the text’s message in some way.

The instructor with the closest match between belief and practice was Susan. During her interview, Susan emphasized that multimodality had long been present in her teaching practices and that based on her observations, it was also a prevalent practice in the business world. Susan expressed great confidence in her knowledge about what real readers expected from multimodal texts, which stemmed from her extensive experience as a writing teacher and as a professional writer. One of these expectations was the proper use of presentation software, which she had observed at professional conferences. During the protocol, Susan’s expectations were directly connected to these beliefs about multimodality, manifesting what she believed the ideal reader would expect. Both Susan’s articulated beliefs and expectations reflect an understanding of multimodality as a rule-governed and conventional activity.
Conclusion

Teachers’ beliefs about multimodality are socially situated and often reflect contextual factors in their lives. Susan, for example, has been teaching business writing courses for many years and, at the same time, has worked as a professional writer. Susan graduated with her Master’s degree in Communication in the early 1980s and has had no formal educational and little pedagogical training with multimodality. As a result, Susan approaches multimodality from the perspective of experience: she is comfortable with a particular approach to multimodality in her business and professional writing classes and in her life as a writer, and she relies on this expertise as well as her observations about how things work in the business world to situate multimodality as a rule-driven, conventional practice. Similarly, the expectations that guide teachers’ multimodal response practices are also a product of social factors. In Susan’s case, her expertise also serves as the source of her expectations; she trusts in established practices and rules that she feels “work” both in her classroom and in the world outside in order to judge the success of her students’ multimodal texts.

While Susan’s expectations correlate with her beliefs about multimodality, this was not the trend for most participants. Instead, teachers in this study possessed beliefs about multimodality that contradicted or differed significantly from the expectations that guided their evaluative response processes. Leah, for instance, maintained that multimodality was connected to rhetoric, but during her response Leah rarely addressed rhetorical issues. Instead, most of her expectations were focused on the static presence or
absence of oral narrative genre conventions. Overall, this chapter illustrates that in multimodal pedagogy, what teachers believe they are doing or ought to be doing typically conflicts with what they actually do during the act of response, particularly when they engage in evaluative response behaviors.
CHAPTER V

Accounting for the Social, Situated, and Creative Nature of
Multimodality in Teacher Response and other Pedagogical Practices

Cope and Kalantzis (2009) have argued that in contemporary times, “Literacy teaching is not about skills and competence; it is aimed at creating a kind of person, an active designer of meaning, with a sensibility open to differences, change and innovation” (p. 175). Skills and competence are relatively simple to transmit to students and to evaluate in student work; it is not complicated to instruct students in a set of rules for creating a brochure, including elements like kinds and placement of fonts and images, and then evaluate student work on the basis of whether or not those rules have been followed. This kind of approach to response and evaluation, which assumes there is a right and wrong way to produce a text, was the most commonly occurring approach taken by teachers in this study who often relied on static expectations to construct evaluative responses to student multimodal work. In this chapter, it is argued that the kinds of “innovation” and compositional behaviors called for in multimodal pedagogy by scholars like Cope and Kalantzis cannot be accounted for by the kinds of static approaches to evaluation relied on by most teachers in this study. In the first section of this chapter, an overview is given of the major findings about teachers’ multimodal response beliefs and practices from an analysis of protocol, interview, and artifact data in Chapters III and IV.
Based on those findings, it is suggested in section two that teachers’ multimodal response do not typically reflect principles of multimodal pedagogy. In the third section, suggestions for improving practice are given, including a description of how teachers might consider the relationship between their learning goals, evaluations, and assignments—but especially between those pedagogical elements and the social and situated tenets of multimodal theory. Finally, several possibilities for extending the results of this research in future studies of multimodal pedagogy are proposed.

**Teachers’ Multimodal Response Practices and Beliefs: An Overview of Results**

A grounded theory analysis of concurrent protocols of teachers’ multimodal reading processes illustrates that in this study, teachers’ multimodal response practices are driven by their *expectations*, or features they wanted see, hear, or otherwise experience in student multimodal texts. *Expectations* are evaluative response behaviors in which the teacher constructs a judgment about her student’s work. Consider this excerpt from Leah’s protocol: “Like I like that um he seemed nervous at the beginning but uh that voice is moving into something with more authority. I think in a revision I’d want to see more of that authority” (7-8). In this passage, Leah praised her student and his text, and her positive judgment was constructed around her *expectations* for her students’ projects: *Had the student done what she had expected him to do?* In this particular case, the *expectation* is that students project an authoritative tone in their aural narratives.

Teachers’ *expectations* can be traced to contextual factors in their interviews or classroom documents, signifying that teachers’ evaluative response behaviors should be
situated within the larger personal, professional, and classroom contexts in which they occur. For instance, Susan, who is an established professional writer and professional and business writing instructor, frequently referenced her own sense of expertise to defend her multimodal pedagogical practices including the expectations that she had in mind for students’ projects. Susan believed that her explicit expectations, which concern formal features for business presentations, were similar to the kinds of expectations business readers outside of the academy would possess. In her retrospective protocol, for instance, she admitted that, “I mean we know what viewers expect from these presentations, and they expect fragments not bullets and um you know animated transitions and animated. I mean, you know they expect those things” (110-112). The kinds of professional values that motivate Susan’s expectations and judgments about her students’ work are related to her sense of expertise and her personal and pedagogical connections to the world of business and professional writing.

The most commonly occurring type of expectation and the most frequently occurring response behavior in the corpus overall was implicit expectations. Implicit expectations represent evaluative decisions made on the basis of previously unaddressed or subconscious expectations that surfaced only during a teacher’s experience of the text. Joe, for instance, identified very few criteria for his students’ research presentations prior to the response situation. During his protocol, he frequently used implicit expectations to evaluate the effectiveness of his students’ projects. When he encountered images, for example, Joe consistently commented on whether or not students had explained the images thoroughly with text. The prevalence of implicit expectations in the corpus
indicates that multimodal teacher response is a practice marked by intuitive or extemporaneous decision-making. Particular features of student multimodal texts may either stimulate teachers’ previously intuitive or subconscious values, or may actually lead teachers to develop a new sense of value based on their experience of the text. In Joe’s case, for instance, it may be that he intuitively valued particular kinds of image and text relationships and, seeing those relationships in student work activated those values. Alternatively, Joe may have developed a sense of effective and ineffective image and text relationships based on what he saw in his students’ projects.

Multimodal teacher response practices were also marked by a focus on the *form* of student work, and by *static* evaluations of *form* and *content*. While attention to form has been a stigmatized behavior in composition pedagogy since the inception of the process movement, form appears to be an increasingly relevant concern for composition teachers in this study. When teachers evaluate their students’ multimodal texts, they focus on formal features nearly twice as much as they focus on content, content/form, or technological features. As a rule, teachers evaluate the *form* of their students’ work in *static* ways, in terms of whether or not a student or text has properly assimilated to a set of conventions and not in terms of the fit between form and the rhetorical context. Most of Susan’s evaluative response behaviors, for instance, are driven by her *static expectations* for the *form* of students’ multimodal research progress report presentations, including features like animations or bullet points. Susan’s response is dominated by a concern for whether or not students have properly executed these formal rules for presentations. *Static* evaluations are also predicated upon the reader’s aesthetic reception
of the form of the text at times. In Sara’s protocol, for instance, she reacts to a student’s slide with the following comment: “Good, nice on the black” (82). Sara finds the form of her student’s work to be “good” and “nice” but does not reference the rhetorical relationship between the color choice and meaning or effect. When teachers respond to and evaluate the form of student multimodal texts in static ways, they presume that genres and conventions are appropriate and invariable across audiences and rhetorical contexts.

Teachers’ evaluative response behaviors in this study often conflicted with their beliefs about multimodality and learning goals present in their interview and artifact data. Leah articulated her definition of multimodality or “digital media” in the initial interview as “using digital technologies to communicate” (140). In a follow-up email, Leah also affirmed that she often applied her experience with and knowledge about rhetorical principles to interpret digital media texts. Leah’s beliefs about multimodality, like all participants’ beliefs in this study, were profoundly influenced by contextual factors in her life including her graduate education experience and her expertise with technology. Leah identified herself as someone who has always embraced new technology, and at Institution B she currently works as a technology mentor for undergraduate students and faculty. She has also completed many graduate courses in digital media at Institution B. Accordingly, Leah’s definition of multimodality gives priority to the role of technologies in compositional practices. Also, Leah admitted that the courses in rhetoric she completed as an undergraduate and graduate student helped her to refine her understanding of rhetoric and to think about its application to evolving text types. Her educational
experience with rhetoric was a frequently addressed topic in her interview and appears to be influential in how Leah claims to approach designing her courses and addressing meaning making in multimodal texts. Yet interestingly, as she read her students’ aural essays during the protocol, issues of rhetoric and technology were barely perceptible. Instead, Leah’s *expectations* were primarily concerned with *form* and were *static*, attending to the presence or absence of fixed aural narrative genre conventions but not connecting those conventions to the meaning or effect of the text, nor to the technologies used to create that text.

Teachers’ multimodal response practices—which were dominated by *expectations* that were largely extemporaneous, form-focused, and static in nature--tended to conflict with their articulated beliefs about multimodality. These kinds of ruptures demonstrate the utility of empirical research into pedagogical practices. While it can be difficult for teachers themselves to see gaps between what they are doing when they respond to student multimodal work and what they believe they should be doing, empirical research can illuminate mismatches between belief and practice that are imperative for any multimodal practitioner to consider. In the following section, the implications of teachers’ multimodal response practices are explored and suggestions are made for improving those practices.

**The problematic nature of teachers’ responses to multimodality**

In this section, it is argued that the dominance of *static expectations* for *form* in teachers’ response practices represents an orientation toward multimodality that neglects
many of the ideals of multimodal pedagogy first proposed by scholars like Cope and Kalantzis (2000a, 2000b), Kress (1999, 2003), the New London Group (1996), and Wysocki (2004a). Wysocki has alleged that if we “want something new to come out of new media,” we have to think outside of a standards- and print-based paradigm and become more “generous” readers (p. 23). Yet when teachers approach multimodal response from a static perspective as was the dominant trend in this study, their response cannot account for the “new” possibilities offered by multimodal texts and pedagogical practices.

Over a decade ago, Takayoshi (1996) cautioned that, “Without careful consideration of the relationship of visual rhetoric and rhetorical goals, computer-generated textual features could easily become the grammar and punctuation of current-traditional rhetorics, with an emphasis in teaching and writing on the correctness of the surface features” (p. 250). Takayoshi warned teachers of the danger inherent in de-contextualized notions of form, anticipating that as students began to use various kinds of digital technology to create new texts, formal features would grow in prevalence and importance in teachers’ response practices. As Takayoshi forecasted, this study indicates that teachers are very interested in the form of their students’ work, as expectations for form occurred twice as often as those for content in the protocol data. But it was the static ways that teachers distinguished form during the response process—and the inherent assumption that fixed or ideal genres and conventions are appropriate regardless of a writer’s purpose, audience, or any other aspect of the rhetorical situation—that most directly conflicts with multimodal pedagogical principles. Nearly three-quarters of the
expectations in this study were static in nature, evidence that teachers frequently evaluated student work without considering the fit between elements of the text and the meaning, purpose, or effect of the work. To address formal features in the absence of context suggests that there are rigid ways to put multimodal texts together successfully; in other words, it advances a set of rules or conventions—such as proper ways to use color, align objects, or convey a tone—that are specific to different textual forms or genres, rather than to authors, audiences, and purposes.

Based upon the predominance of static values in teachers’ response practices in this study, it appears that teachers do not understand multimodality as a “new” practice in the sense that they do not seem to be aware of the “new” textual or social arrangements that might result from its implementation and are instead focused on the transmission or appreciation of particular genres or standards. Yet according to some of the most influential scholarship in the field of multimodal literacy, multimodality is inseparable from its new-ness: it is an approach to composition that advocates both the transformation of resources to produce new types of texts, as well as the acquisition along the way of new behaviors and orientations towards oneself and the world. A static approach to responding and evaluating student work cannot account for many of the “new” possibilities offered by multimodality, especially some of the possibilities that are most critical to multimodal pedagogical theory: the understanding of convention as a cultural and situated choice, the creation of unexpected textual arrangements that may challenge or involve extensive thought about convention, and the importance of individual identity and social purpose in the compositional process.
In one of the first and most influential published texts on multiliteracies and multimodality, the New London Group wrote that “Literacy educators and students must see themselves as active participants in social change, as learners and students who can be active designers—makers—of social futures” (p. 5). The New London Group envisaged that in multimodal pedagogy, teachers would guide students through the process of design and show them how differing literacy practices and communicational resources, structures, and conventions were culturally situated. Students would then be asked to create new texts that challenged those resources, structures, and conventions; it was through the design of multimodal texts that New London Group believed students and teachers could affect social change. A critical early step in the process of “design,” as it is referred to both by the New London Group and also by many of its members in their individual work, is for composers to become cognizant of existing communicative resources and conventions (what the New London Group calls “Available Designs”) and their cultural basis. In other words, composers might ask (or be asked): how and why is this brochure (or other type of text) put together in a particular way? What are the values inherent in its design? The kind of situated approach to convention required by multimodal pedagogy obviously conflicts with the approach advocated by a static approach to multimodal texts, which leaves unexamined and unquestioned the cultural origin and consequences of convention. While a teacher adopting a multimodal approach might ask how and why questions about conventions with her students and in the process communicating that conventions are situated and cultural constructions, a teacher
adopting a static approach would transmit a set of conventions to students and communicate that conventions are static, neutral, and uniformly appropriate ideals.

An understanding of convention as situated is imperative to the success of other stages of the design process advocated by theorists of multimodal pedagogy. A critical stage is production, in which students use what they have learned about the how and whys of convention to create their own texts (what the New London Group calls the “Redesigned”). The process of design emphasizes choice and ingenuity over the ability to conform to conventions. Students understand conventions as value-laden, cultural constructions and make conscious choices about what the adoption of those conventions means or, alternatively, what the decision to call attention to or challenge those conventions might indicate. While a response to student work informed by static values would ask only whether or not conventions are present, multimodality necessitates response practices that address why and to what effect conventions are present in student work. The absence of a particular convention may not necessarily indicate a lack of understanding on the student’s part, but may represent a conscious decision. As Wysocki (2004a) has written, when we respond to student multimodal work “generosity too must enter, so that we approach different-looking texts with the assumption not that mistakes were made but that choices were made and are being tried out and on” (p. 23). A static approach to response, with a focus on rules or one reader’s likes and dislikes, cannot account for the kinds of choice, creativity, and experimentation demanded by multimodal pedagogical models.
Further, through the production of multimodal texts and confrontation of convention new kinds of social arrangements are made possible. For instance, students might begin by analyzing the values inherent in the arrangement of a series of government-funded posters about HIV. They might consider: Why are the posters arranged the way they are? How do they position the audience? The author? Whose values are being served? Coming to the realization that the kinds of images and text being used are, for instance, culturally constructed to characterize the disease as an issue for urban youth only, students might produce new arrangements or posters that challenge the assumptions and values present in the old designs and conventions to suggest that HIV is a pressing issue that spans socio-economic and geographic groups. While a static response to these new convention-defying or manipulating arrangements might be that an error has been committed, a multimodal approach requires the instructor to think about decisions that went into the project and the social motives informing those decisions.

Multimodal pedagogy is an ostensibly social and situated approach to literacy education. Its goals are to teach students the kinds of flexible attitudes and behaviors they will need in the future—not to teach them rigid kinds of texts or rules that they are assumed to need in the future. As Kress (1999) has articulated, the goal of education is to help students to develop the “dispositions, knowledges and skills which they will need in their future lives” (p. 66). He has argued that “The contents and processes put forward in curriculum and in its associated pedagogy constitute the design for future human dispositions” (p. 87-88); that is, what we teach in the classroom and the attitudes toward
composition and texts that our students develop as a result shape students’ beliefs beyond the classroom as the future generation of workers, citizens, and policy makers.

If we were to teach students through overt instruction or through our response practices the rules for creating posters and ask them to produce a text that demonstrates their understanding of those rules, for instance, then they would leave the classroom with a particular orientation toward multimodal texts that is not unlike the dispositions that a static approach encourages: they would understand that there is a “right” and a “wrong” way to create a poster, and that those rules apply regardless of where they are and what they are doing. They would learn that their individual identities and literacy practices are irrelevant, since the goal is for all students to assimilate to one identity, one way of doing things. Further, students would understand that they have no power over the arrangement of their texts and no agency over the rules that govern that arrangement. In a world of difference, these are not the kinds of behaviors and dispositions that lend themselves to democratic participation. On the other hand, if teachers were to walk students through the process of poster design described in the previous paragraph, a process that permits students to see how genres can be culturally constructed and driven by values and that allows them to make decisions about how to best put their own posters together in light of these facts, then an entirely different set of behaviors and dispositions result. Students see that all texts, including their own, exist only inside of “complexly articulated social, cultural, political, educational, religious, economic, familial, ecological, political, artistic, affective, and technological webs” (Wysocki, 2004a, p. 2). Further, they recognize how these “webs” influence the shape of texts and how their own texts might push back on
those “webs” through creative repurposing or transformation of existing rules and conventions. In other words, they learn that they have agency to effect change and to choose arrangements that best suit their identities, beliefs, and rhetorical purposes and situations. What results from a multimodal pedagogical approach is a sense of agency and social responsibility, as well as an appreciation for multiple kinds of texts and literacy practices. According to scholars like the New London Group and Kress, these are the kinds of behaviors required for democratic engagement in contemporary society.

For multimodality to be a meaningful and generative pedagogical strategy, one that truly hopes to prepare students for contemporary life outside of the classroom, students have to learn “dispositions” and behaviors. They have to learn that communication is a situated activity mediated by values, and they have to understand that they are agents of communicative change and not students repeating what their teachers or textbooks “like” or tell them to do. The nature of teachers’ expectations and beliefs about multimodality in this study indicate that according to their response practices, teachers have not fully addressed these principles of multimodal pedagogy first identified by Cope and Kalantzis, Kress, the New London Group, and Wysocki.

Making connections: Suggestions for improving multimodal teaching practices

The results of this study indicate that multimodal theory has not generally translated into teachers’ response practices. There are often large rifts between what teachers believe about multimodality and the beliefs reflected in their responses to student multimodal texts. For students to truly benefit from multimodality and our
evaluations of their multimodal work, teachers ought to make a few important pedagogical moves, including

1. Engaging in reflective practice.
2. Connecting evaluative practices, learning goals, and assignments.
3. Designing evaluations, learning goals, and assignments with principles of current multimodal theory and research in mind.
4. Participating in the above activities in a useful professional development environment.

The first change to consider is the integration of reflective practice. In the absence of reflective practice, teaching stagnates and students’ individual needs and understandings or misunderstandings of course content are dismissed as irrelevant alongside contemporary theory in the discipline (Hillocks, 1995). However, no one student or classroom is the same and, accordingly, pedagogy should always be specific to student needs and sensitive to trends in current research such as multimodality. Reflective practice is a strategy that can allow teachers to adapt to these kinds of changes in a responsible way because it encourages teachers to link teaching practice to theory, and vice versa. The premise of reflective practice is that everything that is done in the classroom, including teacher response, is driven by a set of beliefs or assumptions. As illustrated in Chapter IV, teachers’ implicit values often conflicted with their articulated beliefs about multimodality. Conscious reflection about the compatibility or incompatibility of these new practices and values with teachers’ existing beliefs would allow teachers to modify their beliefs to accommodate their tacit values, or to see more
clearly that new practices are a poor fit with existing beliefs and to adopt different practices. For instance, Sara identified rhetorical purposes as key to multimodality in her articulated beliefs, but in her response practice she rarely addressed rhetorical principles like purpose or audience and made frequent use of static expectations. Reflective practice would reveal the mismatch between her evaluative response practices, which emphasized multimodal texts as de-contextualized and driven by rules, and her beliefs which focused on multimodality as a situated, rhetorical practice. Based on this information, it is likely that Sara would have sought out alternative criteria or expectations that better fit with rhetorical theory to try out the next time she responded to her students’ work.

Hillocks (1995) has argued that, “A reflective practitioner will analyze a new idea in light of its appropriateness to the students and their present knowledge; its fit with available theory, experience, and the goals of teaching” (p. 37). As Hillocks illustrates, in addition to comparing our existing beliefs and practices, it is vital to contrast our practices with contemporary external theories and research. Others have also called for a dialogue between theory and practice. Zebroski (1994), for instance, has insisted that theory and practice be “answerable” to one another (p. 4), and Phelps (1989) has argued for a “dialectic” between theory and practice (p. 45). We might consider how well our response practices address the democratic goals that the New London Group has proposed, or how our expectations for form in multimodal texts align with Wysocki’s theory of materiality. For instance, although Joe’s beliefs and practices match up relatively well, his evaluative process is dominated by expectations for images that revolve around the use of text to contextualize, rather than on the message and purpose of
the images themselves. Joe would benefit both from conscious reflection on the implications of his text-centric beliefs and practices as well as on how they correspond to multimodal theories, with which he is unfamiliar. In the work of Diana George (2002) and Williams (2001), for example, one can find a historical perspective on the concept of visual bias as well as suggestions for more encompassing theories of visual and verbal relationships in the classroom.

A second important move for multimodal practitioners is to ensure continuity between the components of their practice. According to L. Dee Fink (2003), in thoughtful course design learning goals, assignments and activities, and assessment must “reflect and support each other” (p. 65). The dominance of implicit expectations in this dissertation illustrates that often teachers do not appear to have planned or communicated to students their evaluative criteria in advance of the response situation and, often, those criteria or expectations are in direct conflict with the things that teachers say they believe about multimodality or teaching. If teachers were to think more carefully in advance about the relationship between their evaluative response practices and the other elements of their courses, then the prevalence of implicit expectations, as well as the conflicts between belief and action present in the protocols would likely be lessened.

Fink has specified that when teachers design a course, they ought to begin by asking: “What is it I hope that students will have learned, that will still be there and have value, several years after the course is over?” (p. 63). In other words, they should identify long-term, broad learning goals for their students. Next, they must consider their evaluative goals or criteria in the course in the context of the learning goals they have just
established by posing the question: “What would the students have to do to convince me that they had achieved those learning goals?” (p. 63). A clear example of an instructor in this study who would have benefited from this conscious linking of learning goals and evaluative behaviors is Leah. In her initial interview, she expressed that a learning goal for students in her course was the ability “to think more critically about their own literate acts—whether for themselves, school, or more public audiences” (263-264). However, when Leah engaged in evaluative behaviors in her protocol, she relied on *expectations* that were focused on the *form* of student work in *static* ways. The majority of those *expectations* communicated that the ability to assimilate to genre conventions, not the ability to think critically about their own work, was key to students’ success in her course. In other words, Leah was evaluating a particular behavior—the ability to follow rules—instead of the behavior she wanted her students to learn, which was critical thinking. To ensure that response and in particular, evaluative behaviors, are linked with teaching practices, it seems imperative that prior to the response situation teachers like Leah ought to ask: *What is to be evaluated and why? What are the purposes and goals of my response, and how do they relate to overall course and learning goals?*

In part, Leah did not address the presence of critical thinking during her response because the assignment she was reading was not clearly connected to her learning goals. The last step in Fink’s outline for course design is to plan activities and assignments around evaluative and learning goals. He has claimed teachers ought to consider, “What would the students need to do *during* the course to be able to do well on these assessment activities?” (p. 63). In Leah’s case, the driving learning goal was critical thinking, but the
assignment she read was very open and only asked students to tell a story about their literacy. To address principles of critical thinking, Leah could have asked students to analyze the factors contributing to their literacy development, or to write about how an outside factor like a historical event or technological development may have influenced the shape of their literacy practices. Were the assignment to relate to her learning goals in the first place then part of Leah’s response practices could have easily consisted of her judgments about students’ ability to think critically.

This dissertation also illustrates the benefit of interconnected course design for students. So many of the expectations in this study were implicit, indicating that often students were not aware of how their work was being judged. The goals for learning or evaluative criteria that were provided for students in syllabi, rubrics, and assignment sheets tended to contradict the goals and criteria that formed the basis of teachers’ implicit expectations during the response process. For instance, one of Aaron’s course goals was for students to learn about the relationship between style and technology, yet during his response Aaron did not once mention the composing technology that students had used, how they had used it, or how it may have affected the style of their multimodal text. The dominance of implicit expectations suggests to students that the qualities of effective multimodal composition are ambiguous. It also raises an important question: How can our students possibly meet our expectations if we are unaware of those expectations in advance? Teachers need to more carefully plan learning goals, evaluations, and assignments according to Fink’s principles so that all of these course components move students toward the same learning ends. Further, those learning ends
must be clearly communicated to students so that they comprehend what they ought to be learning when they are composing an aural essay, how their learning will be evaluated, and how both the assignment and their teachers’ response tie into the larger, more encompassing goals for the course. Making goals explicit also opens the door to student self-evaluation, because evaluation is no longer viewed as a mysterious process by which texts are submitted, teachers pull a set of values for effective work out of their hats, and a judgment is made. Depending upon the instructor’s specific teaching style and her students, it can also encourage dialogue and negotiation between teachers and students about evaluative criteria.

A third consideration for teachers is to design learning goals, evaluations, and assignments that are informed by multimodal theory and research. Wysocki has stressed that, “In this particular time of change,” teachers need “to shift what we do in our thinking and classes so that we do not forget, so that we make actively present in our practices, how writing is continually changing material activity” (pp. 2-3). As the nature and conditions of literate practice continue to evolve at a rapid pace, so, too, should our teaching practices. However, this dissertation demonstrates that although teachers may integrate multimodality in their classrooms, for the most part their pedagogical practices are not clearly connected to contemporary theory and research on multimodality.

In her initial interview, Anna shared that one of her learning goals for students was, “I want them to learn a little bit about the genre of documentary” (351-352). Multimodal theory suggests, however, that teachers ought to be focused on the kinds of behaviors or dispositions they want students to learn, rather than on the mastery of types
of texts or rules. Kress, for instance, has emphasized the importance of creativity and ingenuity in contemporary composing processes. Wysocki has articulated goals for multimodal pedagogy that encompass production and design, but also awareness of and the ability to work with/against the material structures that give meaning and shape to texts. And for the New London Group, multimodal pedagogy leads students to a changed awareness of their own identity, of their agency, and of the proliferation and value of difference in a global culture. These goals are obviously more complex than Anna’s goal of familiarity with “the genre of documentary.” They relate to behaviors and dispositions that cannot be learned in one semester but that are nonetheless critical for teachers to consider as they organize their courses and set long-term, lasting goals for student learning because they encourage teachers to think about their larger motives for integrating multimodality.

Teachers’ multimodal response practices need to account for the learning behaviors they identify with in multimodal theory. They may design expectations around questions like: What might students do to demonstrate that they have progressed toward the behaviors that multimodality should foster, such as agency or ingenuity? What kind of reading is necessary for me to give my students’ texts in order to promote these behaviors? When responding to the kinds of behaviors encouraged by multimodal theory such as creativity or transformation, it seems necessary that evaluative criteria or expectations be less aligned with static questions about how texts have been put together, in favor of dynamic explorations into why and to what effect texts have been put together. Static expectations can only account for rules or other aspects of text that are constant
across text-types, or for one person’s aesthetic reaction to elements of the text. The kinds of behaviors encouraged by multimodality like creativity and agency lend themselves to the creation of diverse or “different-looking” texts that are situated and unique to each author’s social and rhetorical purpose, identity, and rhetorical situation. To evaluate students’ progress toward creativity and make sense of what they have produced, therefore, these factors need to be taken into account through a dynamic understanding of multimodality. Texts have to be interpreted as representations of the author’s choices, which are guided by the multimodal compositional behaviors that we encourage in the classroom.

Finally, assignments must also address multimodal theory. If an important behavior for students to learn were creativity, then it would be appropriate to evaluate how well students were able to take an existing resource and creatively transform it according to their social and rhetorical purposes. When designing an assignment, an instructor might take these goals into account and ask: *What kind of assignment would move students closer toward these learning and evaluative goals? How can I make clear to students what they ought to be learning in this assignment as well as how what they are learning ties into goals for the course, and beyond? How it ties into evaluative goals and criteria?* Given the learning and evaluative goals identified here, a teacher might ask students to take the same image of a cell phone available in the public domain and transform the image using text and other modalities to communicate a message about one creative way they use their cell phones to an audience of their choosing. This assignment furthers the overall course goal of creativity by asking students to come up with a
message appropriate to an audience and to make something new out of something existing, as well as to think about how they use technologies in ways that do not necessarily correspond to the uses identified by the inventor. It fits with immediate evaluative goals because students are exercising creativity through transforming and adapting an existing resource, the image. As communicative practice changes, teachers have a responsibility to stay current with research and theory in the field and adapt their learning goals, assignments, and evaluations to reflect these changes and better address the needs of contemporary students.

A fourth and final consideration for teachers is the issue of professional development. As Fink has indicated, graduate programs “by and large dishonor the challenge and complexity of good teaching,” and once students enter the professoriate, “seldom are they provided with the means to learn how to be better teachers” (p. xii). The difficulties inherent in teaching and response to student work may be deemphasized in higher education, but the predominance of implicit expectations and the conflicts between teachers’ theories and actions in this dissertation elucidate that multimodal response is a classroom practice with which teachers struggle. More professional development is needed so that teachers are encouraged to contemplate the fit between contemporary theories of multimodality and their own practices, as well as to learn how to effectively design courses and evaluations that address these theories. For instance, two of the three graduate students in this study lacked an understanding of how theory might transfer into practice. These participants were all currently enrolled in doctoral coursework in Rhetoric and Composition and were able to articulate complex theories of multimodality, but that
theory did not tend to transfer into their practice. While most of these participants had experienced a teaching practicum and at least one workshop or conference, it is obvious that they could benefit from additional professional development to help them learn more about “the challenge and complexity of good teaching” and of integrating new, complicated theoretical ideas into their relatively new teaching practices. There is also a need for professional development among experienced teachers. While most experienced teachers in this study had at least one professional development experience, they typically had to seek out external professional development opportunities like university fellowships, workshops at other institutions, or conferences. Typically, these experiences were not very profitable. Anna, for instance, confessed that her professional development experiences have been “absolutely awful” (92) because teaching practices and technology were treated separately when she “wanted very specific things and I wanted it focused on English studies and I wanted it um I wanted the—the uh context of English and teaching to be foremost” (95-97). Similarly, Aaron admitted that he usually disregards what is being said in a professional development session in favor of teaching himself.

This dissertation demonstrates that professional development that is either too heavily based in theory with little discussion of practice or that focuses too much on hands-on use of technologies or multimodality does not help to improve teachers’ multimodal pedagogical or response practices. Rather, what is required is professional development that invites teachers to bridge theory and practice on their own because teachers in this study struggled the most with this activity. For instance, teachers should be encouraged to engage in collaborative, long-term professional dialogue about
multimodal theory in terms of its implications for practice. It is also clear that teachers need professional development that addresses the learning process so that they might think more carefully about the interconnectedness of their assignments, evaluations, and learning goals and how those course components represent (or contradict) their theories about multimodality. Finally, professional development that addresses the situated nature of literate practice and its implications for the response process would encourage teachers to interpret student work in terms of what Wysocki has called the contextual “webs” in which it exists. This kind of professional development would reinforce the importance of questions like: How do student texts work within and against those webs? Considering the existence of those webs, what kinds of expectations should we have when evaluating student work? How are our static expectations limiting?

Suggestions for further studies

This dissertation was undertaken to provide a description of teachers’ previously nebulous multimodal response practices and the theories that motivate them. However, the findings presented in this study only scratch the surface of multimodal response and suggest many avenues for further research. First, as Haswell (2006) has advocated, studies are needed to extend and verify these results. Haswell has indicated that research that allows for “comparability, replicability, and accruability” is required for the growth of the discipline (p. 202). Researchers in other disciplines have developed field-based knowledge by replicating and modifying earlier work, and Haswell has argued that Rhetoric and Composition ought to do the same. In Chapter II, a thorough discussion of
methods, procedures, and coding and analytic processes was provided precisely so that future researchers could design derivative studies. Because the sample size in this study was relatively small and restricted to three universities and a local geographic area, future research might corroborate or refute findings using the same methods and coding scheme but varying the sample size or demographics, or by generating their own coding scheme using the same methods.

An important finding in this study concerned the *implicit* nature of the majority of teachers’ *expectations*, and judgments about what was *implicit* were made on the basis of interview data and course documents. What could not be accounted for, however, were teachers’ classroom practices. For instance, the use of color might not have been a topic discussed in a teacher’s interview or classroom artifacts, but it is possible that she addressed this issue with students in a classroom discussion or lecture. Future studies might integrate classroom observations as a fourth method in order to better discern whether or not an *expectation* was truly *implicit*. Another useful method might be interviews with students to uncover their perceptions, the extent to which teachers clearly communicate their *expectations*, and how the *expectations* teachers verbally communicate differ from or are similar to those they rely on during the response process.

Because the multimodal response practices investigated in this study were relatively new to many instructors, a similar study using the same methods to research teachers’ print-linguistic response practices would indicate whether or not some of the behaviors and findings of this study are specific to multimodal texts. Do teachers think with any more sophistication about print texts? Is a rhetorical or *dynamic* approach more
observable in teachers’ print-based response practices because they have more experience with those kinds of texts?

Finally, this research suggests the state of practice at this particular moment in time for one specific sample. But multimodality is still a relatively new phenomenon in the field that is gaining acceptance, and longitudinal research would provide a better sense of the influence of evolving theory and research on practice over time. If the same group of teachers were interviewed and asked to read student work every three to five years, researchers could see how practices evolve over time and whether or not the presence of implicit expectations decreases as teachers become more experienced in responding to multimodal texts. Our understanding of teacherly and readerly practices will certainly grow as we continue to assign and respond to multimodal texts in our classrooms, as well as address the problematic aspects of multimodal pedagogy identified in this study.
Appendix A: Initial Interview Questions

1. Tell me about how you first became interested in studying your subject area.

2. Tell me about your educational experience. Where did you attend and what did you study? What degrees did you earn?

3. Tell me about how you first became interested in teaching.

4. Tell me about the professional development you’ve engaged in as a teacher.

5. Tell me about your teaching experience.

6. Tell me about your teaching philosophy. (What is important to you in teaching? What is your view of learning? Of students?)

7. Tell me about when you first encountered the concept of multimodality.

8. Tell me about your own experiences designing multimodal texts.

9. Tell me about how you feel multimodality relates to your field of study.

10. Tell me about how you integrate multimodality in your classroom. Tell me about why you do.

11. Tell me about your response philosophy. How do you typically respond to student work?

12. Tell me about the course that you are teaching.

13. Tell me about the learning goals you have for students in this course.

14. Tell me about the assignment that you’ll be reading for this study.

15. Tell me about the learning goals you have for students in this assignment.
Appendix B: Protocol Training Instructions

Think-Aloud Training

Today, I will ask you to think aloud as you read your students’ work for approximately one hour. What I mean by “think aloud” is to simply **speak everything that is going through your mind when you read**, as if you were alone. Please **do not** worry about explaining what you are doing or why you are doing it.

To begin, you will be asked to engage in two short warm-up activities to allow you to become familiar with the think aloud procedure and with the camera.

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**STEP ONE: A simple problem**

Please solve the problem that appears below, thinking out loud as you solve it. Remember that to think aloud means to speak everything you’re thinking without worrying about explaining what you are doing or why you’re doing it.

\[ 25 \times 450 = ? \]

**STEP TWO: A short passage**

Please read the passage below and think out loud. This doesn’t mean that you have to read the text itself out loud, but rather what you are thinking about as you read it to yourself.

Out behind the University of Tennessee Medical Center is a lovely, forested grove with squirrels leaping in the branches of hickory trees and birds calling and patches of green grass where people lie on their backs in the sun, or sometimes the shade, depending on where the researchers put them.

This pleasant Knoxville hillside is a field research facility, the only one in the world dedicated to the study of human decay. The people lying in the sun are dead. They are donated cadavers, helping, in their mute, fragrant way, to advance the science of criminal forensics.\(^7\)

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