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Students' Perceptions of Oral Screencast Responses to Their Writing: Exploring Digitally Mediated Identities

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Abstract

This study explores the intersections between facework, feedback interventions, and digitally mediated modes of response to student writing. Specifically, the study explores one particular mode of feedback intervention—screencast response to written work—through students' perceptions of its affordances and through dimensions of its role in the mediation of face and construction of identities. Students found screencast technologies to be helpful to their learning and their interpretation of positive affect from their teachers by facilitating personal connections, creating transparency about the teacher's evaluative process and identity, revealing the

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teacher's feelings, providing visual affirmation, and establishing a conversational tone. The screencast technologies seemed to create an evaluative space in which teachers and students could perform digitally mediated pedagogical identities that were relational, affective, and distinct, allowing students to perceive an individualized instructional process enabled by the response mode. These results suggest that exploring the concept of digitally mediated pedagogical identity, especially through alternative modes of response, can be a useful lens for theoretical and empirical exploration.

Keywords
digitally mediated identity, facework, oral response to writing, screencast technology and writing response, orality and technology in feedback

Julie, a professor of psychology, is commenting on the paper of Rebecca, a student in her scientifically oriented course on Women and Gender Studies:

> I did want to point out that this statement here [using her cursor to highlight a line of text onscreen]—you probably started a little bit too broad. "Women's rights have been an ongoing struggle for numerous years now . . . men have always been viewed as more intelligent. . . . " First of all, I don't know that we as human beings know that, right? I mean we can speak to recorded history, and you're certainly not off-base in terms of general sentiment. However, as this is an academic paper, we have to support our arguments, and broad, sweeping statements like that are not something that we can, uh, really support in the literature. So you need to start more narrow, perhaps. [The commentary continues for 4 minutes and 12 seconds.]

To create her response, Julie is using screencast technology, which allows her to speak her comments to Rebecca while scrolling through her paper onscreen and highlighting various sentences or passages to call attention to them visually. Rebecca then has the ability to replay this recorded audiovisual session, listening to and reflecting on her teacher's words. At the start of the screencast, Julie greets Rebecca by name, praises her, links her comments to a previous class session, and starts to provide positively phrased suggestions for improvement.

In this article, we explore the use of screencast technology for providing teacher response to student writing. Although teachers across all disciplines in higher education continue to provide marginal and end comments on

students' writing—either conventionally, on hard copies of papers, or digitally, on electronic files using markup programs—emerging technologies are offering new media for response. Among these, screencast programs allow teachers to adopt oral, digitally mediated forms of response that enable them to voice their assessments of students' writing while they point out specific textual features that are related to students' development as writers. This technology has important implications for providing response in academic settings as well as in business and industry.

Because students are attracted to new technologies, we might expect them to respond favorably to a digitally mediated mode of response to their writing. Yet we know little about students' reactions to such response modes (Anson, 2012) or the ways that such modes might influence teacher–student relationships and identity formation. This study begins exploring these questions in disciplinary contexts in which students are asked to summarize, synthesize, or evaluate scientific or technical research within their own or other fields. The students in this study perceived that screencast technologies facilitated personal connections, made transparent the teacher's evaluative process and identity, revealed the teacher's feelings, provided visual affirmation, and established a conversational tone. As such, screencast technologies seemed to account for students' face-related needs (belonging, respect, and autonomy) and hence mitigated the predominant face-threatening potential of the evaluative space. These findings suggest that screencast technology has the potential to facilitate new discussions about digitally mediated identity formation and relationship building—not only in student–teacher or mentor–mentee relationships but also in other relationships in which feedback interventions play an important role in professional development and learning (e.g., employer–employee relationships). Before we discuss theories of identity formation in teacher feedback to students, we review some of the literature on differences between oral and written response to students' writing.

The Legacy of Oral Response to Student Writing

Face-to-face meetings between teachers and students represent the gold standard of response to writing in most educational settings and have been advocated and studied for decades (Black, 1998; Freedman & Katz, 1987; Freedman & Sperling, 1985; Murray, 2004; Newkirk, 1989; Sperling, 1990). Most teachers, however, cannot meet individually with dozens of

students for more than a few minutes, yet the oral, conversational nature of such meetings is very attractive.

In the 1960s, the advent of cassette tape recorders spurred an interest in oral response to students' writing that grew as the devices became more widely available: Teachers could cover more ground in a few minutes of talking than they could in a half hour of writing comments, the cassettes were inexpensive and convenient, and the recordings could be made at any time both in the office and at home (Anson, 1997; Sommers, 1989). Unlike face-to-face meetings, such recordings are monologic rather than dialogic, but the literature has consistently touted the method's benefits over written response: It is more efficient, detailed, personal, and audience-focused (Sommers, 2002); it increases students' self-confidence, helps them to internalize the teacher's feedback, and provides more detail (Sipple, 2007a); it is more easily understood by students and motivates more revision (Yarbro & Angevine, 1982); it is more individualized (Sommers, 1989); it closes the distance between teacher and student, encourages teachers to focus on broader issues of meaning than surface minutiae, and provides a model of response for students (Anson, 1997, 1999); it makes teachers and students feel like "fellow writers" and provides more helpful and explanatory response (Mellen & Sommers, 2003); and it provides far more response than written commentary does in the same or less time (Olson, 1982; Sommers, 2013; Warnock, 2008).

Eventually, with the growing availability of desktop computers and compact disc read-only memory technology, cassette tapes slowly became obsolete, and fewer and fewer students owned cassette recorders. Meanwhile, digitally produced oral recordings—if teachers or students even had the capability to create them—generated files far too large to be conveyed along the narrow computer bandwidth at the time or saved to the limited space on floppy disks or early flash drives. For several years, oral recorded commentary experienced a technology gap and disappeared from the scene.

Current digital subscriber lines and fiber-optic connections, Web 2.0 technology, and massive servers have sparked a resurgence of interest in oral commentary, now enriched by the visual affordances of *screen capture*—the recording of what a user does onscreen, with or without vocal accompaniment. When these screen captures are made available for viewers, they are often referred to as *screencasts*, the term that we use here. In part, this interest represents the renewal of earlier theories and pedagogies supporting oral response to student writing. The sustained growth of online courses, already encouraging audio and video production and communication, has also inspired interest in multiple forms of interaction with students.

Anecdotal and pedagogical scholarship has outpaced empirical research on oral digital response. But in his review of what he calls "Response 2.0"—technologically mediated response to students' writing—Sommers (2013) presented evidence from a number of studies supporting oral commentary delivered online. In one study, students felt that computer-mediated oral response was more effective than text-based feedback for conveying nuance, that the teacher who used this oral response method cared more about them as learners, and that the method increased their learning and retention of information (Ice, Curtis, Phillips, & Wells, 2007). Dagen, Mader, Rinehart, and Ice (2008) reported that audio commentary delivered online provided twice as many comments in the "positive affirmation and rapport building" category than did written responses (p. 160)—findings echoed in studies by Still (2006) and Sipple (2007a), in which 8 of 10 students felt that audio commentary created a strong bond between the student and the professor. In another study, the mean score on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*) for the statement "Audio comments improved my bond with my professor" was 4.25 (Sipple, 2007b). Other research has reported that digital oral and oral–visual responses strengthen students' learning. Moore and Filling (2012), for example, found that students believed audiovisual response provided more information and was clearer than written comments. These and other advantages of computer-mediated oral–visual response, including Warnock's (2008) estimate of the time saved by oral screencast response, are corroborated by Sommers's (2013) own study.

In spite of this and other research on digital oral response, we have found no studies of affect in digital responses to students' writing. Yet we know from literature on identity construction and computer-mediated communication (CMC) that online communication has multiple affective and relational affordances that might be central to students' perceptions of teachers' feedback as well as to feedback in professional settings. In the next section, we discuss literature on identity construction and CMC that is relevant to our study of screencast feedback.

Identity Construction and CMC

Identity has long been an important subject of academic investigation. In sociology and psychology, studies have investigated how identities are formed and negotiated in different cultural and social settings. For scholars such as Mead (1967) and Goffman (1955), *identity* and *self* are not fixed concepts but are the outcome of different performances in various sorts of

communicative interactions (Jung & Hecht, 2004). Identities emerge from social processes of communication (Turner, 2013); individuals are prone to change their behavior and therefore their identities because they are "motivated to verify their sense of self in the eyes of others" (p. 331). Since the groundbreaking work of Mead and Goffman, a growing body of literature has explored the relationship between identity formation and communicative practices (Collier, 2005; Hecht, Warren, Jung, & Krieger, 2002; Jung & Hecht, 2004; Oetzel & Ting-Toomey, 2003; Ting-Toomey, 1994, 1999, 2005; Turner, 2013), concluding that people's identities are fluid, "asserted, defined, and/or changed in mutual communication activities" (Jung & Hecht, 2004, p. 266). Complementing this perspective, the communicative theory of identity suggests that identity is communication itself, not just something enacted through communication (Hecht, Warren, Jung, & Krieger, 2005; Jung & Hecht, 2004)—that is, "a person's sense of self is part of his or her social behavior, and the sense of self emerges and is defined and redefined in social interaction" (Hecht et al., 2005, p. 260).

Identity construction has also been explored in the context of CMC. Although early researchers in the field suspected that CMC might diminish socioemotional communication (Rice, 1984; Short, Williams, & Christie, 1976; Steinfield, 1986), a growing number of newer reports have demonstrated that CMC is used to transmit more than simple information between people. Feelings, intimacy, and solidarity can be conveyed in a medium that facilitates more interpersonal interactions. For example, research grounded in social information processing theory (Walther, 1992) assumes that users of computer technologies are, like individuals in nondigital environments, driven to develop social relationships. In fact, computer-mediated technologies allow the development of more personal relationships based on multimodal (sound and image) interactions (Walther, 1992, 1996), achieving a kind of "hyperpersonal" communication (Walther, 1996, p. 3). In doing so, CMC can improve the quality of interaction and the construction of more positive identities.

In sum, research on identity construction and negotiation and CMC suggests that identities are coconstructed through interaction and that computer-mediated technologies can influence the construction of identities and the relationships that emerge from them. One element, however, that could potentially complicate computer-mediated identity negotiation, especially within a teacher–student feedback session, is facework. In the next section, we discuss the concept of facework and its central role in feedback interventions such as those we explore here.

Facework in Feedback Interventions

The concept of face refers to a speaker's desired self-image when interacting with other people. While face is generally a psychological construct, facework is communicative, involving the strategies individuals use to maintain or rescue their own or others' self-image in interactions (Goffman, 1955). For example, the four of us are teachers. If someone approached one of us and said, "I'm surprised at how lenient you are with your students. I didn't realize it is acceptable for teachers to make so many exceptions to the late assignment policy," we might feel that our teaching was being challenged. This comment is a face threat. *Face threats* are those communications that challenge a person's desired self-image. Typically, face threats are met with defensiveness. In this example, we might feel the need to justify our teaching decision in order to maintain the image of being a "good" teacher: "I've done this in other classes and it turned out ok," or "Wait until you really understand these students and the challenges they face and see how you handle it." Yet these are simply strategies to save face, not deal with the issue at hand. If we tried to address the issue by directly acknowledging feelings of defensiveness (e.g., "I'm a little taken aback by your comment because it feels like you're questioning my teaching without understanding the situation") or by addressing questions about pedagogical competence (e.g., "It sounds like you're challenging my teaching style"), then we would be engaging in face mitigation strategies.

Most of the research on facework in the classroom builds on politeness theory (Brown & Levinson, 1987), which suggests that there are two consistent needs driving social interactions: the need to be socially affirmed by those we value (positive face) and the need to be autonomous and unimpeded by others (negative face). Ironically, teaching is inherently a face-threatening process because teachers evaluate what students do and therefore automatically constrain and restrict students' freedom (Cazden, 1979). In particular, students might interpret evaluative feedback as disapproval (threatening positive face and their need to be affirmed) and feel that it limits their future possibilities (threatening negative face and their need to act without constraint). Thus, facework is particularly complicated in the context of feedback and evaluation. Students come to classrooms not only having to cope with face issues that emerge from being judged and graded but also having cultural historical patterns that influence their conception of face. And when the communicative aspects of teaching threaten students' face, the teaching and learning relationship can also be equally threatened (Kerssen-Griep, Trees, & Hess, 2008), which makes the evaluative setting

even more sensitive to face-related issues and makes facework an important issue to consider (Dannels, Housley Gaffney, & Martin, 2011).

According to politeness theory, facework involves three kinds of needs—two needs addressing positive face (the need for involvement or belonging, or "fellowship face," and the need to be respected, or "competence face") and one need addressing negative face (the need to act without impediment, or "autonomy face"). When these needs are threatened, the interaction becomes less focused on its content than on the identity of the participants (Lim & Bowers, 1991), potentially impeding learning.

Feedback intervention theory (FIT) helps explain how this shift in focus happens in situations involving evaluation or feedback. Previous research has suggested that feedback interventions, while generally assumed to increase performance, actually decrease performance in some cases. According to FIT, the overall success of a feedback intervention depends on a number of variables. One significant variable is whether the feedback includes any perceived threats to identity—that is, threats to face (Kluger & DeNisi, 1996, p. 267). If students are focused on maintaining identity or saving face, their cognitive attention to the learning task is diminished. FIT suggests that feedback focused on meta-task features (e.g., the identity of the receiver of the feedback) limits performance, directing students' attention away from the task itself so that their cognitive focus is on saving face. In contrast, feedback that focuses on students' understanding and on reducing the feedback standard gap (the gap between actual performance and the ideal standard) is more likely to change students' performance and enhance their learning.

Research suggests that mitigating face is a central component of students' perceptions of and reactions to feedback (e.g., Kerssen-Griep, Hess, & Trees, 2003; Kerssen-Griep, et al., 2008). Three strategies have been connected with facework in feedback interventions: solidarity (strategies that address students' need to feel involved in the evaluative setting), approbation (strategies that focus on students' needs to be respected in feedback interactions), and tact (strategies that address students' needs for autonomy in the evaluative process; see Lim & Bowers, 1991). Students claim that feedback that employs these strategies and hence acknowledges face issues (the need for affirmation, involvement, or autonomy) is more helpful and easier to attend to and process (Trees, Kerssen-Griep, & Hess, 2009). In this respect, teachers have the challenge of keeping students focused on the task while simultaneously attending to their face issues. Teachers who are skilled at managing face in feedback interventions—who can successfully

address task-related goals (e.g., sharing corrective information) and face-related goals (protecting students' self-image and preserving their autonomy)—contribute to a more productive learning environment (Jameson, 2004; Jussim, Soffin, Brown, Ley, & Kohlhepp, 1992), greater satisfaction within the perceived mentoring relationship, and a more supportive classroom climate (Kerssen-Griep et al., 2008). But attending to face issues in feedback interventions is complicated. Research suggests that students prefer and respond better to more elaborative feedback than to nonspecific and impersonal feedback, but elaborated feedback tends to be more detailed and thorough and can therefore be more face threatening to students. According to FIT, the challenge for teachers is in providing feedback that is elaborative and specific while mitigating face threats.

In addition to the face-related complexities of the feedback intervention process, emerging technologies add further complications by introducing possibilities for anonymity, voice-only interactions, voice and live but ''distanced'' image interactions, and interaction delay. Furthermore, distance-education courses provide fewer nonverbal cues to help students interpret their teacher's feedback (e.g., teachers and students lack the physical presence that can provide important face-mitigating and identity-rich opportunities to help students interpret the feedback received on a paper).

Missing from the literature is an empirical exploration of the intersections between facework, feedback interventions, identity construction, and digitally mediated modes of response. The following study explores these intersections by examining one particular mode of feedback intervention—screencast response to written work—through students' perceptions of its role in the mediation of face and the construction of identities. This exploration could be highly informative not only for its theoretical contribution to the literature on facework and computer-mediated identity construction but also for its aid to teachers or professionals invested in using digitally mediated forms of response in various courses or work settings. In light of the increased attention to technologies in numerous disciplines, especially technically oriented ones (Walther, 1992, 1996), such explorations could provide teachers with important information about how their use of these technologies influences students' perceptions of the teacher–student relationship. We sought, then, to answer two questions:

> **Research Question 1:** What role does screencast technology play in students' perceptions of how face is mediated during feedback interventions about their writing?

Research Question 2: What digitally mediated pedagogical identities do students perceive as emerging in screencast feedback interventions?

Method

To investigate our research questions, we collected student interview data from eight courses at a large Southeastern university in which instructors were trained to use a screencast program to comment orally on students' papers. Five were first-year composition courses with a cross-curricular orientation in which students were writing for the sciences, social sciences, and humanities, and three were upper level scientifically oriented courses in the disciplines. The full project was approved by our institutional review board. In the following subsections, we describe our choice of screencast technology, the setting and participants, and our data collection and analysis.

Choice of Screencast Technology

A screencast is a video of activity taking place on a computer screen, usually accompanied by voice. A common use of screencast technology is a PowerPoint presentation recorded for online viewing in which the creator talks about and advances each slide as in a live presentation. The screencast can then be uploaded to a server or content management system for viewing. Screencasts can record anything that happens on a screen, making them especially useful for computer help applications.

We chose Jing as the screencast application for recording responses to students' writing. Developed by TechSmith, Jing is a free, downloadable application that records (for up to 5 minutes) all the activity, along with the user's voice, taking place on a designated part of the screen (https://www.techsmith.com/jing.html). Typically, a teacher opens a student's paper on the computer, increases the view size so that it takes up most of the screen, and then activates the program. The teacher speaks while scrolling through the paper and highlighting various parts of the text with the cursor or other tool. Everything the teacher does onscreen is recorded. An elapsed-time bar counts down from 5 minutes. When the screencast session ends, the program prompts the teacher to either send the file to a cloud-based server affiliated with Jing (Screencast.com) or save it locally for uploading to a content-management site. Students can then access (or download) and play the recorded screencast, taking notes while they listen to their teacher's commentary and watch the teacher's scrolling and highlighting.

While other programs are available to create screencasts of teacher commentary, we chose Jing because of its built-in time restriction, ease of use, and ability to be quickly activated. Although limiting a screencast to 5 minutes might be seen as a problematic constraint, Sommers (2013) has found that students overwhelmingly feel that 5-minute Jing recordings provide more response than do conventional written comments. Our data in this study support this. We compared screencast transcripts with written marginal and end comments across all eight courses in both phases of the study. Results showed that teachers' conventional written responses averaged 109 words per paper, whereas teachers' spoken words in the screencasts averaged 745 words per paper (after all, noncontent-focused hesitations such as "um" and "ah" were eliminated). Although more sophisticated programs such as TechSmith's Camtasia have no time limits and allow users to edit what they record, these programs are not free and take longer to use, making them potentially less attractive for the labor-intensive work of commenting on students' papers and for the purposes of this study.

Setting

We collected data from students enrolled in eight different classes: five face-to-face sections of first-year composition (taught by four different teachers) and three distance-education (online) courses: Introduction to Psychological Research (sophomore level), Women and Gender Studies (sophomore level), and Women and Health (junior level), the latter two taught by the same instructor. Of the six total teachers, two were teaching assistants (with less than 3 years of teaching experience); two were full-time, nontenure-track faculty who had taught for more than 10 years; and two were tenured members of the faculty. In total, 141 students were enrolled in these eight classes, 89 in the five sections of first-year composition, and 52 in the three distance-education sections.

We chose these eight classes based on both criterion and convenience sampling strategies. Participating classes needed to have at least two mid-length (3–5 page), graded paper assignments (so that students could receive both written and screencast feedback) and a teacher willing to use Jing to provide comments on the second paper. We sought out composition courses first because of their accessibility to us, the consistency of the teachers' training, and the interest of the first-year program in data-based explorations of technological evaluation tools. We chose online courses because we received a small internal grant from the Distance Education and Learning Technology Application program to explore the use of Jing in online

instructional settings. Interviewees from the participating courses volunteered to do the study based on our call, which articulated the importance of exploring new evaluative techniques in light of digital technologies and the value of students' feedback on those technologies. Participants each received a $10.00 gift card following their interview.

Although content varied across courses, students' writing assignments all focused variously on their ability to summarize, synthesize, or analyze some form of technical or scientific information. In the first-year classes, student papers synthesized research from a variety of academic disciplines; for this project, the two papers both focused on synthesis of research from the sciences and social sciences. In the online courses, student papers focused on analyzing research articles or writing proposals for research projects related to the content of the course. In this way, students were learning to communicate technical or scientific information through their writing, either by synthesizing someone else's information (from an article) or proposing their own research project based on an understanding of prior research.

In all courses, the teachers provided written evaluative comments to the students for the first significant graded paper, which the students submitted electronically. All the teachers used their usual method for marginal comments (the insert comments feature in Microsoft Word) and typed comments at the end of each student's paper. For the second paper, the teachers recorded comments using Jing and did not provide additional written feedback, except for a handful of inserted comments used as placeholders for points they wanted to make during the recording. All screencast comments were completed within the 5-minute constraints of the Jing program, and the teachers used most or all of that time to provide their responses. For all teachers, we supplied free microphone headsets and subscriptions to Screencast.com.

Participants

Participants in this study were students enrolled in the previously described courses who volunteered to complete in-depth interviews about their experiences with the modes of feedback. Of the 141 students enrolled in these courses, 12% volunteered for interviews (17 participants). Of these 17 interview participants, 3 (17%) were male and 14 (83%) female; 7 (41%) were first-year students and 10 (59%) were sophomores or juniors. We administered a survey to all 141 students enrolled in the participating courses in order to gather demographic information and impressions of both modes of feedback.[1] In terms of students' familiarity with various modes of evaluation,

their responses revealed that half the students had received digitally inserted written responses as well as responses provided in face-to-face meetings with teachers; only 15%, however, had received recorded responses in the past. The majority of the 141 students in the study—92.1% in the face-to-face courses and 87.5% in the online courses—reported spending 10 minutes or less reading their teacher's written commentary. Asked how many times they watched and listened to their teacher's screencast commentary, most of the students in the face-to-face courses (81.7%) and in the online courses (94.9%) reported doing so once or twice (i.e., approximately the same amount of time that they spent reading the written comments).

Data Collection

For the first-year composition courses, we videotaped 30–45 minute structured interviews with students who volunteered to participate. These volunteers were equally distributed across the five sections of composition courses. For the online courses, we conducted the same structured interviews but used the video function of Skype because many of these students lived at some distance from campus. In these interviews, we asked students questions concerning their overall feelings about screencast technology, the general message they received from their teacher about their paper, their feelings about their teacher's response to their paper, and the impact of screencast technology on the teacher–student relationship (see Appendix).[2] Transcriptions of student interviews resulted in 72 single-spaced pages of text for analysis.

Data Analysis

We conducted an inductive typological analysis of our data that included processes of reducing and becoming familiar with the data, creating and naming categories and themes, and drawing conclusions (Boyatzis, 1998; Goetz & LeCompte, 1984; Miles & Huberman, 1994; Roulston, 2001). Our unit of analysis was any phrase, sentence, or complete thought that directly or indirectly involved forms of identity management, construction, or maintenance or perceptions about the teacher, student, or their interaction in the feedback setting. We used qualitative research software that allowed us to digitally collect, organize, and analyze the content of our interview transcripts into initial categories. The software automatically saved and allowed access to our descriptions for each category, linking categories to related quotes and information.

We analyzed the student interview transcripts using the constant comparison technique from grounded theory (Glaser & Strauss, 1967) and open, axial, and selective coding. During open coding, we generated the initial category nodes from the data by deconstructing, reviewing, comparing, and conceptualizing data from the interview questions (Charmaz, 2006). Once the initial nodes were established, we used the constant comparison technique to generate emergent categories, interrelating those nodes with each other to investigate the research questions (Punch, 2005). Five central categories emerged from this process: Screencast technologies (a) facilitate personal connections between teacher and student, (b) create transparency about the teacher's evaluative process and identity, (c) reveal the teacher's feelings, (d) provide visual affirmation, and (e) establish a conversational tone for the evaluative process. Through axial coding, we then explored the relationships and thematic patterns between categories, specifically focusing on how the face-related functions suggested particular digitally mediated identities to investigate Research Question 2 (Corbin & Strauss, 2008). Finally, through selective coding, we resolved overlapping issues and identified a core theme about the kinds of identities constructed in this digitally mediated setting.

To ensure quality analysis, we engaged in check coding and intercoder reliability (Lincoln & Guba, 1985; Patton, 2001). During the open-coding phase, we talked through the assignment of initial units and nodes in order to explore implicit assumptions or biases that might have influenced our analysis (Lincoln & Guba, 1985; Miles & Huberman, 1994). Following open coding, we trained an independent coder and provided 10% of our data for an intercoder reliability check. This process achieved a Cohen's κ of .80, which is considered substantial agreement (Landis & Koch, 1977).

Results

Results of this study provide insight into students' perceptions of the screencast technology in terms of face-related issues and the kinds of digitally mediated identities constructed through this technology. (Participants' names are pseudonyms.)

Research Question 1: Students' perceptions of the face-related functions of screencast technology

Five categories emerged in the analysis of the student interviews regarding the ways in which students made sense of face-related issues in the

screencast. That is, students consistently reported that screencast technology played a role in (a) facilitating personal connections between teacher and student, (b) creating transparency about the teacher's evaluative process and identity, (c) revealing the teacher's feelings, (d) providing visual affirmation, and (e) establishing a conversational tone for the evaluative process.

Facilitating personal connections between teacher and student. Participants described screencast as a personal mode of feedback intervention that enabled feeling a connection with their teacher. The teachers' voices, tone, and virtual presence were factors in students' perceived sense of connection with the teacher. Ashton, for example, said that "it was actually a lot personal in a way, 'cause instead of having someone just write on your paper and hand it to you, she was actually talking to you." Likewise, Rudy commented as follows:

> I'm more of a people person. So I don't like really looking at a screen all the time. But I really like that. And, I think it brings a little bit more of that, that personal aspect, and it makes it a lot easier.

And for Jordan, being able to hear the teacher's voice and tone made the screencast a "more personal" mode of feedback:

> I definitely like it a lot because I get to hear my professor's voice, which makes it a lot more personal. And I can relate and I can hear her . . . intonations in her voice. So I can tell whether something was good, whether something was bad.

In addition to the ability to hear their teacher's voice, students felt that their teacher's use of their first name strongly affected their personal connection with their teachers. As Aimee responded, "The fact that she would use my name, I guess, in the screencast, whereas she may not have in the written comments, kind of makes it more personal." Similarly, Darcy said that "I just think anytime you say someone's name it just makes it just that much more personal. Even if you don't really know that person." Other participants highlighted additional ways that the screencast created a personal connection. Rudy noted how his teacher mentioned a detail about his aspirations: "In her comments on the screen shot, she remembered what my professional goal is—I want to be a pharmacist—and she brought in comments about that and connected it to my paper."

Students also perceived that the teacher was creating a personal connection with them by taking the time necessary to complete the screencast. Cody commented that "I know it took a lot more time . . . [but] it made me feel like, she was spending time, one-on-one, with me as a student." Likewise, Bailey said, "You know, this made me feel like she really took the time to go through and look at the spots that needed to be fixed and to praise the spots that were written well."

Creating transparency about the teacher's evaluative process and identity. Besides perceiving screencast feedback as a more personal mode of response, the students also felt that it helped to make the teacher's expectations and ways of grading more transparent, as Jordan's comment exemplifies:

> I learn how my teacher goes through the paper, what she is looking for throughout the paper as she is grading it, because you can kind of see her going through and what catches her eye. Because what's catching her eye is what's being recorded, and she's writing comments out as you go through the paper. So, that gave me some insight into the improvements I could make, and especially, and especially to appeal to her for my future papers.

Students also suggested that screencast responses yielded a higher quantity and quality of feedback, so they could better understand what to do to improve. Drew complained that "teachers before that just write letter grades and no comments. That is not useful at all. I don't know what I'm doing wrong. I don't know what I can do better." Drew explained further:

> If you are in a classroom learning how to write, you might need more than just a couple of sentences in the margin. And, um, you know, this [screencast] corrects pretty much everything you've done wrong, like little phrase mishaps that I had and everything. So, I think this is definitely a way to really improve students' writing.

The ability to stop, pause, and rewind also contributed to students' understanding of their teacher's expectations, which Maddie's comment affirms:

> You could . . . go back and rewind and, stop, and pause at a certain section; that you just don't have to look at the video all the way through—that you could actually go back to a section if you feel like here's specifically what your professor has said.

Lee reinforced the importance of the screencast in helping students to understand the teacher's evaluative process:

> When we are actually able to use our senses . . . we are actually, we are able to get more understanding rather than [when we are] just looking at something on a paper, because you can look at something on a paper, and take it one way. But, I guess through the screen capture you can actually see what your professor is actually trying to say.

Students also suggested that part of being able to understand the teacher's expectations was being able to hear the teacher's tone of voice as well as see the screencast. Emory remarked that "being able to hear her voice I could tell in the tone exactly what she meant." Whereas Emory highlighted the affective dimension as an aid to understanding the teacher's expectations, other students pointed to the wealth of knowledge they received about their teacher through the screencast. Quinn said that

> I'm sure for a student who doesn't know their professor very well, they would learn a lot about how they grade [with screencast]. . . . [I] thought it was really useful, understanding like how the teacher is grading your paper and what she's looking for.

Similarly, for Rudy, "it really made more sense and I could tell exactly what I needed to do to do better next time."

Revealing the teacher's feelings. Students suggested that besides helping them understand their teacher's expectations, the screencast technology provided insight into the way the teacher was feeling about them and their writing. Jordan said that

> I definitely feel like I had good feedback from my paper that had just been graded with the written comments; however, [through] the screen capture grading method I was able to get those comments, as well as a feeling about how she felt.

Similarly, Lee affirmed, "I felt like she was a lot more friendly about it. And even though she's trying to help me out with my paper and giving me criticism, she's still happy with the way that it turned out." Tanner suggested that the ability to understand the teacher's feelings was important—and often more complex than the actual grade:

> It was really nice, actually, knowing what the teacher was thinking when she went over the work, like, why I was getting graded down. There's a lot more to how the teacher feels about it [the paper], as opposed to, how you actually do and how other people are doing as well.

Students also claimed that hearing the teacher's feelings was unavoidable in the screencast. For example, Ashton said, "even if it is not directly, she was actually expressing her feelings about your paper." Jordan explained that the screencast can provide a window into the teacher's feelings in ways that written comments cannot:

> Because you do listen to her voice, you could definitely tell if she was angry or annoyed, or pissed off when [reading] the paper and how that might have affected your grade. But, when you can hear how she sounds . . . anybody can just type words and make them sound good. But, when you actually have to speak, it's a little bit more difficult to control how you feel and how your words come across.

As Drew commented, hearing the teachers' feelings had a direct impact on students' views of themselves and their papers:

> I actually kind of learned that she liked my paper and that she likes the way that I write, which is nice and made me feel better about writing papers. I usually hate it. 'Cause I feel like they hate my writing.

Jordan continued by explaining the benefits of understanding the teacher's feelings: "You can really start to learn to connect with the paper, as well as connect to the person, which is who you're trying to write to."

Providing visual affirmation. Not only did students find the screencast responses to be helpful in understanding more about the teacher's expectations and feelings; they felt that this mode of response was useful in providing visual affirmation. Jessie commented on the specificity of the response:

> She [instructor] liked how I used specific examples, and she pointed those out and highlighted them on the screen shot. So, I was able to see, you know, what she was actually talking about instead of just her like writing a comment on it saying, "great examples." But, she actually, like, said, "Oh, I really like how you said this right here," and just kind of moved forward.

Similarly, Ashton pointed to the teacher's visual highlighting in her screencast response:

> I was paying careful attention to her words, and where she was actually highlighting the sentences, and showing me where my errors were, and things I could've corrected. It was a lot easier than seeing somebody just write it down on your paper next to a single sentence. . . . She was actually highlighting and showing me how to fix it on the computer. Like hanging indents, she highlighted it and went up to the process and went through it with me.

Jordan also commented on the visual affirmation the screencast provided:

> I can get a visual tone as opposed to having to read what the tone is through her writing. . . . When they are scrolling down through, you can tell specifically what the concern is. So, I really appreciated that. She highlighted the certain parts that I needed to know, but only when it occurred one time. But, definitely [it helped that she could] scroll down the paper, talk about it, and highlight the important points . . . as opposed to having the paper there and just talking. [I liked] being able to read and hear at the same time.

Screencast responses also helped direct students' attention to aspects of the paper that were good (in contrast to overwhelmingly showing negative aspects, as in written evaluative comments; see Daiker, 1989). Lee pointed specifically to the ways in which the teacher used praise:

> It was, like, just more specific per section. And I knew what she was talking about. And she was more likely to point out something that I did right. So, when she got there she would be like, "I really liked how you did this," when she wouldn't have necessarily taken the time to write a comment about it.

Likewise, for Drew, the screencast provided visual insight "to actually see she was really accepting of me as a student, [she was] really respectful."

Establishing a conversational tone for the evaluative process. Students perceived that as a mode of feedback, the screencast responses helped to establish a conversational tone in which the teacher was a kind of interlocutor. As one participant, Quinn, described the experience: It was as if the teacher "was standing there talking directly to me." Cody compared the process to a conversation:

> She was great. It was, it was a very comfortable conversation. Well, I cannot really say conversation because we weren't speaking. But, just the way she spoke to me, if I were to be speaking directly with her, it would've been an extremely comfortable conversation, and it would've made me feel, you know, like I could talk to her about anything.

Maddie also perceived the screencast response as being conversational, almost similar to a two-way discussion: "I thought it was very interactive." Many students echoed Cody's and Maddie's comments, describing the screencast experiences using the language of proximity and conversation. Rowan even suggested it felt like office hours, like "going to her study hour, or her office hours and talking about the paper." Similarly, Aimee said, "it's almost like they are sitting down with you having a discussion about your paper." Drew focused on the differences between the conversational nature of the screencast and the written comments:

> She said, you know, like what you did here and what you did here, you could have done this a lot better. I thought it was a lot more welcoming and nicer than sometimes what . . . all they can say in the margins is like 'Fix this, fix this," instead of "I really like this," and like long paragraphs of her "I like it, but this is what you could do better, but this is what you did well."

The conversational tone of the feedback broke down students' traditional perceptions of the teacher–student relationship. Bailey said that "sometimes I feel like teachers can tend to be condescending and in my screencast was not that way at all." Emory claimed that the conversational tone of the screencast never made him "feel dumb for making a mistake." For Jessie, the conversational tone was especially helpful affectively:

> I felt like I could talk to her more. That it would be less angry. I think a lot of times we are intimidated by our teachers, especially since they are the ones grading our papers. But, I felt like she was . . . friendly about it. And even though she's trying to help me out with my paper and giving me criticism, she's still happy with the way that it turned out.

Aimee also mentioned that by creating a conversational tone, the screencast encouraged more actual conversation: "I think it makes the idea of talking to your professor less intimidating and I think that's really important for professors to do."

As these interview excerpts illustrate, students perceived their teachers as a conversational partner in spite of the one-way nature of the screencasts. The oral–visual mode of response appears to have created an ethos for the teachers that students perceived as being more like a coach than a judge.

Research Question 2: Digitally mediated pedagogical identities

In this study, then, screencast feedback facilitated personal connections between the teacher and student, created transparency about the teacher's evaluative process and identity, revealed the teacher's feelings, provided visual affirmation, and established a conversational tone for the evaluative process. These face-related functions provide insight into students' perceptions of their teacher's identity. Specifically, the ways that the screencast technology mediated face during feedback interventions suggest that students perceived their teacher to be enacting three digitally mediated pedagogical identities: as an affective guide, as a personal trainer, and as a relational partner.

Affective guides. Students' talk about the screencast technology suggested that they perceived their teacher to be enacting the identity of an affective guide throughout the feedback intervention process. As the data have shown, screencast technology provided the students with a window into the teacher's feelings, created transparency about the teacher's evaluative process and feelings, and made the students feel good about themselves as writers. Students emphasized the affective aspects of the feedback interventions, using language such as "friendly," "made me feel comfortable," "nice," and "welcoming." Students also recognized that they were used to paying attention to less positive aspects of comments when receiving traditional feedback (e.g., feeling "intimidated" by feedback or paying attention to when the teacher seemed "angry" or "annoyed" in written comments). Yet the screencast technology seemed to bring, in this case, more positive affective aspects to the front of the stage in more pronounced ways. The technology made the affective aspects of the feedback intervention transparent for the students, transforming the teachers—in the students' eyes—into affective guides who could help them understand not only the content of what they were saying but also the relational aspects of the messages. From the students' perspective, the technology put the teachers in this role because it foregrounded the affective aspects of the process.

Personal trainer. Students' responses to the screencast also suggest that they perceived their teacher as taking on the role of personal trainer in the

feedback process. By enabling personal connections, revealing teachers' feelings, and providing visual affirmation, the screencast technology facilitated a one-to-one communicative relationship that felt personalized to students. For example, students commented that it was "personal," the teacher "spoke directly to me," and it was "like sitting in her office." Students also highlighted how their teacher's use of their name brought a personalized touch to the feedback intervention. But, similar to what a coach or trainer might provide, the personalized nature of this relationship was embedded in instruction. In contrast to the directives they had received in the past ("do this" and "fix that"), students felt that their teacher used more suggestive language and actions by "highlighting areas that are important," "walking through the process," and "tell[ing] what she meant." Students perceived that the teacher was trying to "help them out," enacting a personalized, trainer-like identity throughout the process.

Relational partner. Students' responses to the face-related aspects of these feedback interventions also suggest that they perceived their teacher as a "relational partner" in the evaluative setting. Their use of language such as "conversational," "interactive," and "walking me through it" illustrates that they did not view this feedback as a one-way conversation. Students felt that the screencast facilitated a relationship with their teacher, and they framed themselves as not simply recipients of information but as part of a dialogue. They attended to the voice, tone, and conversational nature of the feedback, describing it at times as dyadic and interactive even though it was strictly monologic. Perhaps students' perception that the screencast interaction was dialogic came from their feeling that their written words were their contribution to the exchange and that their teacher was interacting with them through their texts. This perception of the dialogic nature of the screencasts highlighted the relational aspects of the feedback interactions—students felt that their teachers wanted to help them by using an interactive communication process.

Discussion

As our analysis shows, students in the study perceived that through screencast-enabled response, their teachers acknowledged face-related issues, even if they did so tacitly, by addressing students' needs for involvement, affirmation, and autonomy. The screencast technology appears to have created an evaluative space in which students could interact with their teacher in ways they saw as productive to the learning environment.

Specifically, the screencast seemed to enable students to feel involved and respected—two central aspects of face mitigation (Lim & Bowers, 1991)—and to see their relationship with their teacher as interactive, affective, collaborative, and personalized (characteristics often more reflective of interpersonal relationships outside of the classroom). These feelings appeared to mitigate the potential for face threats that are often common in evaluative settings.

In particular, students' perceptions of the role of screencast in face mitigation suggest that the technology allowed the teacher to acknowledge face as a part of the instructional process (perhaps in ways they had not experienced before). Students said that they felt involved in the relational interaction, respected personally, and taken care of affectively. In fact, they seemed to perceive that teachers were engaged in face mitigating communicative strategies, in particular, approbation–respect strategies (e.g., using names, personal vocal tone, and visual affirmation) and solidarity–involvement strategies (e.g., using conversational tone, revealing feelings, and visually guiding changes; Lim & Bowers, 1991). Although students' perceptions do not suggest a clear link to tact strategies (addressing the need for autonomy), we might argue that by virtue of feeling affirmed, respected, and involved, students felt that they could be more autonomous in their future writing.

Furthermore, the medium of screencast seemed to foreground these affective, face-attentive strategies, mitigating face threats and, according to FIT, potentially allowing students to focus psychological energy on the content of the feedback itself (Kluger & DeNisi, 1996). Students felt respected, not judged; they felt guided, not criticized—hence, they were more likely able to focus on the content of the feedback. Also, students could see and hear teachers talk and walk them through (on the screen) places where they needed to improve. This visual affirmation could have potentially reduced the feedback standard gap in ways that were helpful to students' learning.

In sum, concerning the risk of face threats that accompany a relatively high-stakes evaluative context, the screencast mode seems to have helped students negotiate the teacher's dual identity as the evaluator who imposes expectations and criteria and the sympathetic, collaborative, and affective guide and trainer who is interested in their intellectual and discursive growth. This result occurred even though the scientifically oriented context and content of their writing prompted students to expect that the teacher's response would display a serious tone, a relatively objective and precise use of language, and strong adherence to disciplinary conventions.

These perceived digitally mediated pedagogical identities (as opposed to identities formed in face-to-face instruction)—the affective guide, the personal trainer, and the relational partner—seem more interpersonal in nature, breaking down the stereotypical hierarchical nature of the teacher–student relationship and reflecting more of an interpersonal than an impersonal relationship. Although we are not ready to claim that these relationships were hyperpersonal (Walther, 1996), the perceived relational, affective, collaborative, and personalized nature of the teachers' identities seemed to create a space in which students believed they were involved in instruction that was face friendly (attentive to face issues, specifically those focused on involvement and respect) instead of face phobic (resistant to issues of face in evaluation). According to FIT, this face-nurturing nature allows for a greater possibility that students will take the feedback and make changes accordingly—a potential focus for future inquiry.

This study has important implications for classroom and workplace settings. In classroom settings, the feedback intervention space is one that merits continuous exploration. As many teachers try out and adopt new technologies for various aspects of classroom instruction, it is important to understand the ways in which digital feedback functions in face-related ways. In business classrooms, when teachers are using Twitter as a backchannel for discussion, teachers' posts can be understood as face-related feedback to students' contributions. When teachers use podcasts to present part of the lecture, they are constructing particular identities that could influence the learning setting. And most directly, in any classroom (upper or lower division) where teachers are exploring technologically mediated forms of feedback, they must be mindful of how the technologies contribute to or detract from face-attentive aspects of the feedback intervention. In this study, students felt that the technologies highlighted their teacher's approbation and solidarity strategies in the intervention, hence mitigating face threats. Future teachers could explore the ways in which various technologies allow these strategies to be more easily enacted and communicated to students.

Outside the classroom, in workplace settings, managers and supervisors must consistently provide both formative and summative feedback to employees. Some studies have shown that young employees can be devastated by face threats associated with feedback on their writing (Anson & Forsberg, 1990). This study suggests that technology has the potential to provide a venue for employers to mitigate face threats often associated with performance appraisals or responses to work products. Although the

workplace and the classroom are in many ways dissimilar, this study raises the question of whether digitally mediated technologies provide an opportunity to enhance feedback interventions in workplace settings by allowing for and engaging interactants in face-attentive communicative behaviors in ways that are more salient than those allowed by other forms of feedback.

Limitations and Future Research

Although students' perceptions about the use of screencasts for instructor response were largely favorable, other factors might have contributed to these perceptions beyond the relational, affective, and personal dimensions facilitated by the technology. We did not, for example, collect data on students' grades compared with their perceptions of the screencast technologies, so the students who volunteered to interview might have been those who received higher grades and hence felt more favorable about the technology. Or students might have had differing perceptions if the screencast had been the first evaluative intervention rather than the second. Additionally, although we interviewed teachers about their perceptions of the technology, we did not collect detailed data on their processes of using Jing. Some might have prepared more thoroughly for the intervention whereas others might have recorded their first reflections on the paper. Also, these particular teachers might have been more likely to provide responses that were relational, affective, and personalized regardless of the feedback mode. That is, the screencast technology might have just provided another venue for them to exhibit identities they would have embraced anyway. Finally, this research provided insight into students' perceptions of teacher identity, not teachers' actual enactment of their identities or how the students and teachers coconstructed identities.

We believe that these limitations do not discount the strongly supportive data concerning screencasts as a mode of response, but they raise important implications for future research. For example, studies could explore whether screencast response improves students' learning and performance as a result of face-related dimensions of feedback when controlling for grades, teacher variables, and timing of feedback. Additionally, because this study explored only one part of the teacher–student relationship (student perceptions), future research could explore the coconstructed nature of teacher–student identities in technologically mediated feedback by looking at the teachers' perceptions and behaviors. Such explorations will benefit from the assumption not just that students are interpreting teachers' comments but that all elements of the interaction are involved and potentially

invoked—including the "dispersed, fluid chains of places, times, people, and artifacts that come to be tied together in trajectories of literate action along with the ways multiple activity footings are held and managed" (Prior & Shipka, 2003, p. 181). Attention to the multifaceted nature of identity formation could explore not only how teachers construct who they are on a course Web site but also how that context automatically creates a construction of who they think their students are.

Additionally, a focus on coconstructed pedagogical identities that are digitally mediated would benefit from attention to the particular technological medium used. How these identities emerge and evolve in Jing screencasts, for instance, might be different from how they emerge in a Skype feedback session. Students and teachers might construct themselves and each other differently in voice-over PowerPoint comments than they would in vodcasts or podcasts. Additionally, these identities might take on different layers of complexity in high-stakes evaluative settings than they would in lower stakes, out-of-class settings or in students' self-sponsored literate work as opposed to their academic work. In this study, these evaluations were higher stakes—graded papers. An ungraded classroom Twitter activity might create a different context than would a high-stakes screencast for a final project; hence, the ways in which teachers and students coconstruct identities could vary.

Finally, future research would benefit from exploring the extent to which digitally mediated pedagogical identities that are coconstructed—as negotiated in the feedback intervention process—contribute to the ways in which students become socialized as experts in their disciplines (Lave & Wenger, 1991). Specifically, as students are learning to communicate information that is often unfamiliar to them, it could be interesting to explore how the affordances of the technological medium help them learn to translate and emulate the expert discourses of their discipline and teacher. Such explorations would be particularly intriguing in courses in which students are called on to communicate highly technical information as "experts" to high-stakes audiences (e.g., capstone courses). In these cases, perhaps some form of technological feedback in the learning process would help students learn to attend to identity construction within hierarchical relationships (e.g., between engineers and potential funding sources or designers and clients) in ways that traditional forms of feedback do not. Thus, in so far as the medium potentially facilitates face-attentive identity negotiation, future research could consider the extent to which the technology facilitates disciplinary socialization (or perhaps inhibits it).

Conclusion

In our work on classroom technology with faculty across the disciplines, we sometimes hear warnings that technology will depersonalize education and replace what is sacrosanct to our work with students: face-to-face interaction. We too have considered the problem with how technology in classrooms influences the teacher–student relationship as well as many other pedagogical issues. Such cautionary tales often cast technology as the potential villain, ready to topple the pillars of championed ''best practices.'' Yet, for students and teachers in this study, technology appears to have supported good pedagogy. In fact, we suspect that the oral and visual nature of the technology in this study allowed the teachers to use it in a way that personalized rather than depersonalized the educational interaction. Rather than creating barriers between teacher and student, it seemed to lift them. This feature did not go unnoticed by one of our participants, Drew, who gave the following response when asked about the primary message he heard his teacher communicate to him as a student and writer through the screencast:

> She more or less sees that I'm intelligent and terrible at writing and that I kind of just BS the writing so I can get through it. . . . She wants me to expand on what I'm thinking more than I do already. Yeah, I'm kind of in big trouble now that she saw I'm smart.

It would be too bold to claim that this message could not have been communicated in written comments. Yet we venture to say that this student heard it with more relational depth, tone, and complexity through his teacher's screencast. This study suggests that the ways in which teachers used the screencast technology allowed for the performance of digitally mediated pedagogical identities in which messages such as this one could be spoken and heard in relational, affective, and individualized ways.

Drew was not alone in pointing to the nuances of the digital medium as a mode for feedback. As mentioned, many students in this study articulated face-related issues important to this medium and identified particular ways in which the medium allowed their teacher (and sometimes themselves) to perform identities that they might not have been able to grasp in another medium. Certainly, we do not have comparative data to suggest they saw their teachers differently in different media, yet we know from this study that in this technological medium, students did ascribe relational, affective, and distinctive identities to their teachers. Moving forward, perhaps in

looking through the complex lenses of emerging technologies such as screencasting, we can see through the veils that can at times obscure authentic connections—and learning—between teachers and students.

Appendix

Interview Script

Introduction. Thank you for agreeing to participate. We appreciate you taking the time to talk with us. The purpose of this study is to get students' perceptions of the screen capture feedback. First I'd like to get some general information about how you went about viewing/listening to the screen capture.

1. Did you watch the entire screen capture?
2. What did you do when you watched the screen capture? Did you watch it more than once? Did you stop it and restart it along the way?
3. How would you describe your overall feeling about the screen capture method?
4. How did it compare with written comments for you? (Explore the responses to this question: What's different, if anything, about the written vs. screen capture method?)

Now I'd like to hear a bit more about your reactions to the screen capture technology as it applied to your paper.

5. What was the overall message you heard from your teacher about your paper?
6. As you watched and listened to the screen capture, did anything catch you by surprise about your teacher's reaction to your paper?
7. What was the most helpful part of this process to you? What did you learn?
8. What was the least helpful part of this process to you as a writer? Was anything still confusing?

Now we'd like you to think about the way your teacher responded to you in the screen capture.

9. How do you feel about the way your teacher responded to you as a student in her written comments and in her screen capture comments? Were there any differences in your feelings about her focus on you as a student?

10. Did you learn anything new about your teacher from the screen capture that you didn't learn in the written comments?
11. How would you describe the relationship your teacher established with you through the screen capture? Was that any different from the relationship she established in the written comments?
12. Which method would you prefer your teacher use to respond to your papers?
13. What recommendations can you provide for teachers who might want to use this method of evaluation?
14. Do you have anything you'd like to add about the written and screen capture comments?

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Notes

1. Demographic and survey data regarding students' use of the screencast technology were collected separately for the two populations (see Anson, in press, for an analysis of the survey data). Only interview data from the subpopulations are discussed here.
2. Although interview questions did ask students to speak about the screen capture in light of their experiences with the written feedback, given the sample size and the students' overwhelming focus on the screencast mode of response, we were uncomfortable with drawing clear comparisons across feedback intervention modes; instead, we chose to focus our project solely on students' perceptions of the screencast feedback. When students did speak comparatively, they clearly perceived that the screencast feedback was qualitatively better (e.g., more conversational, more personal) than the written feedback.

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