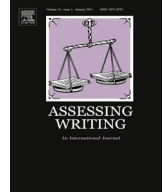




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Assessing Writing



Show and tell: Student and instructor perceptions of screencast assessment



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ABSTRACT

This study addresses students' and instructors' perceptions of screencast assessment and compares this feedback method to traditional paper or digital text-based comments. Screencast assessment allows for asynchronous audio and visual commenting on student papers using screencast software. A pilot study using surveys of 39 students enrolled in lower-level composition classes and surveys of five composition instructors have indicated that screencast assessment promotes detailed and effective feedback on student writing. This feedback method reveals instructor's thought process while grading, and this transparency fosters student–teacher communication about writing. Screencast assessment changes the detail and types of comments, fostering an increased use of macro-level comments over micro-level concerns. The method does not necessarily save time grading but allows for feedback in the same amount of time. Because of the suggestion that students and instructors value screencast assessment, this study warrants a larger scale project in order to investigate the student preference for this feedback and whether the method leads to improvement in student performance.

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1. Introduction

Emergent scholarship suggests a burgeoning interest in the use of screen-capture technology in the classroom (Brick & Holmes, 2008; Ice, Swan, Diaz, Kupczynski, & Swan-Dagen, 2010; Moore & Filling, 2012; Silva, 2012; Stannard, 2007; Thompson & Lee, 2012; Warnock, 2008); there is, however, little

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empirical data regarding student and instructor use of screencast feedback on students' perceptions of the assessment, particularly for providing feedback on writing assignments. We have chosen the term *screencast assessment* to describe the use of screen-capture software to provide asynchronous audio and visual commenting on student papers. A screencast records what is happening on the user's screen and includes the option of adding audio, in our case, with comments spoken into a microphone. When students play their *screencast assessments*, they see their papers the way the papers appear on the instructors' monitors. The screen recording captures their papers, any of the instructor's cursor movements, scrolling, and movements to web pages outside the students' texts. Any marks or comments made on the paper before the recording process, as well as comments typed or marked during the screen recording process, appear, as well. At the same time they watch the screen capture, students can listen to the instructor's voice commenting on their writing.

Both classroom instructors and students alike express frustration with the writing assessment process, albeit for different reasons. In other words, because the assessment is supposed to help improve writing, there is a concern that this process is not achieving its aim. Instructors are concerned with managing the time spent giving feedback and grading and are unsure about the effectiveness of their feedback. Students often complain that it takes too long to get their work back, and when they do, they have too little information provided by the instructor to help them improve writing, or, worse yet, cannot read or understand handwritten comments. [Thaiss and Zawacki \(2006\)](#) argued that students often cannot comprehend the meaning of teacher comments and cannot, therefore, meet expectations. It could be argued that these frustrations are only increasing as the current generation of students grew up in a video world where text and video are always linked. Students often give cursory attention to the written comments on their assignments because they do not feel motivated to read them, or they have learned that they do not have the ability to understand the comments in terms of making substantive changes to their writing. For those of us who teach writing, it is extremely frustrating to have received final drafts of papers, on which we have spent time providing feedback on previous drafts, only to find that the changes the students have made to their paper only have addressed the lower-level comments related to grammatical issues and/or mechanics and usage issues.

This study on student and instructor perception of screencast assessment draws from literature on screencasting technology, student responses to instructor feedback, and instructor perception of their own feedback and its utility. It is hoped that by adding to this growing body of research, new ways may be found for providing students with relevant feedback on their writing. At the same time, we hope to provide instructors with a mode of assessment that will allow them to reduce their frustration with the process.

2. Review of literature

2.1. Benefits of screencasting technology

Recent studies have examined feedback using screen capturing software ([Vincelette, 2013](#); [Brick & Holmes, 2008](#); [Ice et al., 2010](#); [Moore & Filling, 2012](#); [Silva, 2012](#); [Stannard, 2007](#); [Thompson & Lee, 2012](#); [Warnock, 2008](#)). [Moore and Filling \(2012\)](#) examined how screencast feedback can be used effectively to respond to student writing in the college classroom. Their results indicate that the use of screencasts assists instructors in creating feedback that is more detailed, targeted, and tailored for each individual student. Like audio feedback, screencast feedback allows for extensive spoken comments on student writing. Studies by [Silva \(2012\)](#), [Ice et al. \(2010\)](#), and [Davis and McGrail \(2009\)](#) have found that students' perceptions of audio feedback were positive. It is important to attempt to discover whether other students in different settings find this mode of assessment effective, as well, especially because, through its use of both audio and video, screencapturing provides students with both the visual and the audio in one.

In a screencast students hear their instructor's voice and pick up on the intonation, not unlike what would occur in a face-to-face conversation. In a face-to-face conference, an instructor can explain expectations and have a dialog with students about their work ([Beach, 1989](#); [Frank, 2001](#); [Lerner, 2005](#)). Unfortunately, the face-to-face situation engenders concomitant problems because it creates social pressures. Research comparing face-to-face to virtual or online conferences suggests that online

conferences allow students to feel more comfortable because of the perceived distance (Carabajal, LaPointe, & Gunawardena, 2003). At the same time, instructors are not actually facing the students; thus, the instructors do not feel the same type of social pressure to be accurate, articulate, and adept at commenting, not to mention sensitive to emotions when sitting next to or across from students. This is not to say that there is no social pressure, but the nature of the screencast interaction shifts the emphasis away from certain behaviors that would occur in person, including gestures or other social cues such as positioning of chairs in a room. The one-way delivery may invite shared discussion but without those social pressures attendant to a physical interaction. The screencast also provides an online artifact, and students can “write back” to the feedback or list discussion points for follow-up conversations with an instructor.

It is also worth mentioning that face-to-face conferencing requires an immense time commitment that usually limits this method to one or two per semester. In other words, instructors do not have the time to perform these mutually beneficial conferences with every writing assignment, and screencasting can help build this sort of relationship based on discussing writing—one that serves both instructor and student alike. Screencasting starts a dialog and provides a foundation for articulating writing, not taking the place of face-to-face exchanges, but providing an additional tool. Thus, establishing assessment methods that allow for optimal growth in student writers while simultaneously dealing with the time constraints proves an important area for research.

Screencast feedback removes some of what instructors perceive as the negatives of face-to-face conferencing while still allowing for instructor tone of voice. For example, a face-to-face exchange involves the potential for lengthy conversations that can be difficult to focus, as well as the simple fact that delivering negative criticism is awkward. Like audio feedback, screencast assessment is pre-recorded and can be played as many times as students desire. Also, instructors can practice and re-do audio recordings, which allows them control and distance (Mellen & Sommers, 2003); this affordance is also supplied by screencasting. Using the available technology may help address the students’ desire for spoken comments and the instructors’ desire to manage time. As Warnock (2008) notes, students prefer face-to-face over screencasting, but screencasting was favored by 27% of the students in his study compared to traditional written comments being preferred by only 15%. Therefore, screencasting may be the next best thing to face-to-face conferences without the time commitment.

2.2. Student perceptions of and preferences for feedback

Silva (2012) studied students’ responses to screencast feedback for college writing instruction and found that students’ perceptions were more positive when compared with more traditional methods of feedback. Ice et al. (2010) examined students’ perceptions of the effectiveness of screencast feedback, as did Vincelette (2013). These studies indicate that the students’ positive perception stems from their desire for multi-sensory feedback, a major benefit of screencasting, which the students perceive as flexible and effective. Studies indicate that students prefer a combination of visual mark-ups with audio feedback (Vincelette, 2013; Crews & Wilkinson, 2010; Oomen-Early, Bold, Wiginton, Gallien, & Anderson, 2008; Greivenkamp, Stoll, & Johnston, 2009; Simonsson, Kupczynski, Ice, & Pankake, 2009), and that they perceive electronic feedback as more valid and valuable than handwritten comments, as indicated in a case study by Denton, Madden, Roberts, and Rowe (2008). Studies indicate, however, that students prefer face-to-face conferencing to video feedback (Siegel, 2006; Warnock, 2008). Beach and Friedrich (2006) note that most instructors use written comments more than any other form of feedback. Students, however, often complain that comments are difficult to decipher, not specific enough, and vary greatly depending on the course (Beach & Friedrich, 2006). Screencasting can help with explanation but not necessarily address the problem (from the students’ perspective) of the variety of instructor commentary used across courses or disciplines, nor is there the expectation that screencasting would do so. Nevertheless, students report needing more than comments and marks on papers to improve their writing and that they benefit most when they receive explanations for why certain comments are made (Beach, 1989). These explanations prove necessary because students often have difficulty understanding the meaning behind instructors’ comments (Thaiss & Zawacki, 2006), not to mention the difficulties they face reading handwriting. In fact, a number of studies, including LaFontana (1996) and Bardine, Bardine, and Deegan (2000) show students’ confusion because

of instructor handwriting. Using a comment feature in a word processing program would, at least, address the ability to read the instructor's comments.

2.3. *Efficacy of screencasting due to its multimodality*

The use of screencasting allows the instructor to provide an in-depth explanation for why something is or is not working within the paper. Frustration arises when students are neither able to read (a problem with handwritten comments) nor understand (a problem with both handwritten and typed or electronically rendered comments) an instructor's reasoning. Again, screencasting helps eliminate this problem. Research suggests that students prefer feedback on the content of their papers more than other types of comments such as those on grammar, mechanics, and structure, for example, and that audio feedback, because it tends to emphasize content, is therefore more valuable than other forms of feedback (Dagen, Matter, Rinehart, & Ice, 2008). Ice, Curtis, Phillips, and Wells (2007) have examined students' preference for *multimedia* feedback, following Barger et al.'s (2002) findings that online learners prefer multimedia texts over text-only content. In addition, studies indicate that students perceive *multisensory* feedback as flexible and effective (Vincelette, 2013; Crews & Wilkinson, 2010; Ice et al., 2010; Oomen-Early et al., 2008). This multisensory aspect reflects students' preference for *multimodality*, in particular the instructor's use of different forms of media to respond to student work (Vincelette, 2013; Crews & Wilkinson, 2010; Greivenkamp et al., 2009; Ice et al., 2010; Oomen-Early et al., 2008; Simonsson et al., 2009). Kress and van Leeuwen (2001) defined *multimodality* as "the use of several semiotic modes in the design of a semiotic product or event, together with the particular way in which these modes are combined" (p. 20). Multimodal texts do not privilege alphabetic writing, but instead include a number of expressions, or modes, such as print, sound, and image. Today's students live in a world in which they are immersed in multi-modal messages, and if we can find a way to make our assessments more akin to the format with which they are most comfortable, then our assessments may in turn be more effective. For the purposes of this study, the screencast serves as a multimodal form of feedback because it adheres to the parameters of multimodality mentioned above.

2.4. *Screencasting versus traditional feedback*

Stern and Solomon (2006) found that instructors focused more on form (grammar, mechanics, and style) than on idea development and content in their feedback on student writing. In order to determine characteristics of effective feedback used by college instructors, Stern and Solomon conducted a study of 598 graded papers and coded teacher comments; they noted three characteristics of effective feedback: (1) that the instructor provided both positive comments and corrections; (2) that the instructor narrowed feedback down to several select areas per assignment; (3) and that instructors pointed out patterns of strengths and weaknesses in the student writing (pp. 25–26). Likewise, building on extensive theory in composition studies, Straub (2000) identified seven principles for effective teacher feedback, which can be read as advice or good practices: (1) turn your comments into a conversation; (2) resist taking control of the student's text; (3) prioritize giving comments on global concerns before addressing style and correctness; (4) limit the scope and number of comments; (5) focus the comments to reflect the stage or draft of the text; (6) individualize comments to fit each student; and (7) praise writing often. With screencast assessment, providing effective feedback that reflects the above suggestions proves an easier task for an instructor than using text-based comments alone because it allows for individualization as well as having a time limit. The efficacy of using screencasting as a method of feedback stems from the fact that screencasting allows for the production of more detailed, useful observations for students because instructors are able to articulate their thinking process and provide their reasoning for their assessment.

Haswell (1983) also suggested that writing feedback should be individualized and limited to focused areas. According to Haswell, when students and instructors can focus on patterns, writing can improve as part of a process over time. Sweeney (1999) found that focused instructor comments, when coupled with instructions on how to use feedback, helped students revise their writing to make it more effective. Likewise, Hillocks' (1982) seminal study on feedback concluded that focused comments, in conjunction with process writing and frequent revisions, benefitted student writing. Screencasting

allows for more development of feedback commentary, and it can be focused on the areas that the instructor feels are important for each individual student.

The purpose of this study was to examine the efficacy of using a screen capturing program for providing feedback on student writing. Adding to the recent research on this topic, this study assesses the efficacy of the technology from the perspective of students in terms of their engagement with the writing process (Moore & Filling, 2012; Silva, 2012). Additionally, we wanted to find out from the perspective of the instructors whether or not they believed this technology was beneficial both to them as instructors of writing and to their student writers. Building on recommendations of Hillocks' (1982) study, we believe that screencasting can help students focus their attention on the feedback being given rather than the final grade. Thus, instructors will not spend hours providing feedback to their students without seeing subsequent improvement in the students' writing. Specifically, this study addressed the following research questions:

1. From their perspective, do students find multimodal assessment using screen capturing technology more effective than traditional written feedback, and do they feel more engaged with their writing feedback?
2. From the instructors' perspectives, do they believe that their students' written works improved due to the use of a multimodal assessment method?
3. Do instructors using screen-capturing as a method of providing feedback on writing believe that the time it takes to learn the technology is worthwhile?

3. Methodology

3.1. Participants and settings

The institution where this study was conducted serves approximately 24,000 students. Its buildings and facilities are located about three miles from the downtown area of a major southern city. Although its buildings are spread out, there has been a concerted effort to create a more geographically defined "campus." This effort has occurred in conjunction with a rapid expansion in enrollment and research activity in the last ten years. It is classified as a Carnegie Research Institution with a "high" research activity. Faculty members tend to have relatively heavy teaching loads, and students are diverse in background, are frequently first-generation college-going, and are often part-time. Many need supplemental guidance and support to succeed academically. This study included 39 college students taking one of the two entry level composition classes required by the University in the spring and summer of 2012. Of the 39, 14 were male and 25 were female; 28 of the students were between 18 and 23 years of age, with four being older than 30. Their class levels ranged from freshmen to seniors. Five instructors were also trained in using the screen capturing program as a means of assessment. The rationale for choosing these courses was two-fold. First, the students taking these classes are from a variety of majors; thus, for them, writing may not be something that comes easily. Second, the instructors teaching these classes have a vested interest in helping their students become better writers while at the same time needing to find ways to give effective feedback without overwhelming themselves. All students from the five instructors' classes were invited to participate in the survey via an e-mail link that was sent to them from their instructor with the last paper submitted by the student. Of the potential 95 students, 39 students elected to complete the survey.

3.2. Screencasting feedback

For the purpose of this study, screencasts were created using a free version of Jing[®] software because of its low cost and ease of use, along with free storage space on the website [screencast.com](http://www.screencast.com) (www.screencast.com) to store the screencasts for distribution to students. Other screencasting software programs like Camtasia[®], CamStudio[®], AdobeConnect[®], and Snagit[®] can be purchased from a price range of approximately fifty dollars to hundreds, and these programs offer more features than Jing[®]. (The authors of this study have no affiliation with Jing[®], nor do we suggest that any of our data serve as recommendations or reviews of the product.) The Jing[®] program limits recording time to five

Table 1
Construct reliabilities.

| Construct | Cronbach alpha |
|---------------------------|----------------|
| Attending/Engagement | .919 |
| Incorporation of Revision | .957 |
| Feedback Quality/Quantity | .974 |
| Preference | .984 |

minutes, so instructors who want to surpass the five-minute limit would need to make more than one screencast. The five minute limit prevents instructors from producing lengthy recordings that could prove unwieldy for student use. In a study of audio feedback, [Dunne and Rodway-Dyer \(2009\)](#) learned that some students found recordings exceeding ten minutes to be too long.

Instructors used Jing[®] to create the five-minute screencasts which they distributed to students using screencast.com, a file-sharing site that compresses and converts the videos into files that can be copied, pasted, and shared as links. These links are not readily searchable online because they are stored behind the instructors' password-protected accounts, and the links themselves are combinations of numbers, capital, and lower-case letters that do not spell recognizable words. Most instructors emailed the links to their students, and one copied and pasted the links into online portfolios that each student had created in Google-docs[®].

4. Data collection

Data from students were collected through a “Multi-Modal Assessment Student Survey” (see [Appendix A](#)) that was placed on Survey Monkey[®]. All students from the five instructors' classes were invited to participate through an e-mail invitation that was sent with their final paper. The survey consisted of 20 questions that made up four constructs of interest: their attentiveness and engagement; their ability to incorporate the revisions suggestion; their perceptions of the feedback quality and quantity; and their preferences for using this type of feedback as opposed to the more traditional written comments given by instructors. The constructs were measured on a 4-point Likert-type scale with responses ranging from strongly agree to strongly disagree. Additionally, students were asked how many times they viewed the video of their paper and to provide information on their gender.

During the same semester that students responded to the survey, the first author conducted semi-structured individual interviews with the five instructors. Two of the instructors were faculty, one a full-time instructional faculty member with a 4/4 teaching load, one an adjunct instructor with five classes, and three of the five were graduate teaching assistants with one class each. Pseudonyms were used to protect the identity of the participants in this study. All of the participants had prior teaching experience, which ranged from several years to ten years. Each interview lasted approximately thirty minutes. Open-ended questions were used in order to encourage the instructors' perspectives on screencasting, with a goal of maintaining a conversational experience. Interviews were recorded and transcribed. The interview questions focused on instructors' use of screencasting software, particularly as a change from traditional grading methods, their perception of the quality of their screencasts, and their perception of students' reactions to the screencasts. Interviews were conducted based on an interview protocol of eight questions (see [Appendix B](#)).

5. Data analysis

The survey data was analyzed using SPSS 18. Descriptive statistics were calculated on the four constructs, and Cronbach alphas were calculated to ensure the reliability of the four constructs. The alphas on the four constructs ranged from .91 for the attending/engagement construct to .98 for the preference construct (see [Table 1](#)).

The first author of this study transcribed the five interviews and analyzed them using a coding process based upon grounded theory ([Charmaz, 2006](#); [Clarke, 2005](#); [Dey, 1999](#); [Glaser, 1978, 1998, 2001](#); [Glaser & Strauss, 1967](#)), in order to identify emergent themes regarding instructors' perceptions

Table 2
Descriptive statistics.

| | N | Minimum | Maximum | Mean | Std. deviation |
|---------------------------|----|---------|---------|--------|----------------|
| Attending/Engagement | 39 | 1.33 | 4.00 | 3.4957 | .66610 |
| Incorporation of Revision | 39 | 2.00 | 4.00 | 3.4308 | .63169 |
| Preference | 39 | 1.00 | 4.00 | 3.5179 | .75772 |
| Feedback Quality/Quantity | 39 | 1.50 | 4.00 | 3.5299 | .67199 |

of using screencasting to provide feedback on student writing. There were three coding steps used: gerund codings of the word frequencies using grounded theory; gerund codings of the interviews using grounded theory; and memo-writing (using grounded theory techniques) to elicit emergent categories, themes, and their overlaps. Furthermore, as a method of checking the themes, the first author ran the interview transcripts through a concordance software program to examine word-frequency counts.

In the first phase of coding using grounded theory, interview transcripts were placed into a word processing program in a two-column format, with the transcripts on the left and space for codings on the right. Using a line-by-line technique, chunks of the transcripts were named by using gerunds in order to define, summarize, and categorize the data (Charmaz, 2006; Glaser, 1978). Gerunds were then organized into conceptual categories in order to determine what main themes were emerging from the student responses. In the penultimate phase of coding, the categories were classified further in several memo-writing codings using focused coding to synthesize data into conceptual clusters; from these codings, meanings emerged through the recursive process of sorting through the information. Gaps, questions, and analytic frames arose during the process (Charmaz, 2006), and core categories and subcore categories emerged (Glaser, 1998).

Transcriptions were then uploaded into a concordance program (concordancer) called Antconc (Anthony, 2012). Developed by corpus linguist Laurence Anthony, the Antconc program, like all concordance software, serves as a tool to explore patterns of language in a text or across more than one text. Anthony (2004) described Antconc as a freeware, multi-platform, multi-purpose corpus analysis toolkit intended for classroom use. Despite the robust capabilities of the program, only used the Word List feature was used in order to sort words in the interview transcripts in order to generate a word frequency list that provided the most frequently occurring words in the transcripts along with the number of times each word occurred.¹ Using the word frequency results, words were grouped into categories suggested by the data, including (a) use of time, (b) use of technology, (c) grading anxiety, (d) methods of commenting, (e) workflow patterns, (f) comparison to other feedback methods, and (g) perception of feedback (for both the instructors and students). These categories underscore the categories from the grounded theory codings and produce the same analytic frames.

6. Findings and discussion

In terms of our first research question, the survey reflected that the students in our sample definitely felt that the feedback they received was more effective than traditional feedback. Additionally, the students felt that they made more effective revisions than from standard (written) comments. Perhaps this was because hearing why something wasn't working from their instructor made it easier for them to understand how to go about revising their writing. The students also strongly agreed that they preferred this method of assessment over traditional written comments. In fact, although the instructors felt that the students mostly made content, or macro-level changes, the students preferred this mode of feedback for more micro-level changes, as well.

The mean scores for the four constructs ranged from 3.43 to 3.53 (see Table 2). These data indicate that across the four constructs the students chose to “strongly agree” that they were more attentive

¹ It is worth noting that the word list cannot shed light on the importance of a word in a corpus, because near the top of the frequency list might be words that do not suggest much information, such as words like *the*, *to*, *and*, *it*, *of*, *a*, and *is*.

Table 3

Times watched.

| | | Frequency | Percent | Valid percent | Cumulative percent |
|-------|------|-----------|---------|---------------|--------------------|
| Valid | 1.00 | 1 | 2.3 | 2.6 | 2.6 |
| | 2.00 | 10 | 23.3 | 25.6 | 28.2 |
| | 3.00 | 17 | 39.5 | 43.6 | 71.8 |
| | 4.00 | 7 | 16.3 | 17.9 | 89.7 |
| | 5.00 | 2 | 4.7 | 5.1 | 94.9 |
| | 6.00 | 2 | 4.7 | 5.1 | 100.0 |
| Total | | 39 | 90.7 | 100.0 | |

and engaged, incorporated more of the comments, believed the feedback quantity and quality was better, and preferred this method of assessment.

Perhaps more importantly, the students, on average, watched their video three times, with the most being six times and the least being one time (see [Table 3](#)).

In terms of our second research question on whether the instructors thought this method of assessment was effective, the interviews indicated that the instructors believed that it was an improvement over traditional methods. Additionally, they felt that using screencasting changed the grading process for both them and their students. The following three themes pertain to our second research question: From the instructors' perspectives, do they believe that their students' written works improved due to the use of a multimodal assessment method?

6.1. Theme one: screencasting proves beneficial for improving student writing compared to traditional feedback methods

6.1.1. Defining and comparing

In order to discuss and describe their use of screencasting for assessment, instructors compared the method to other forms of feedback with which they were more familiar, as well as to other software. Several instructors compared screencasts to face-to-face conferences. Daniel said he thought of the screencasts like one-sided conferences, but that he conceptualized screencast feedback that way because he used the technique as a follow-up to face-to-face conferences. Debra said, "I think it brings a lot to classrooms . . . in terms of opening up what feedback looks like, and . . . it's helpful in sort of a conference level of teaching; it fits with what I value in a classroom overall, through the dialogue."

Daniel also called screencast assessment a "bridge" between traditional written comments on student papers and face-to-face conferences. He talked about enjoying face-to-face conferences because they help students and teachers. He noted, however, that screencasting cannot replace face-to-face conferences. Likewise, Helen said that when given the choice, most students would want a face-to-face conference to discuss their papers and worries that screencasting could just be another voice "talking at" students: "If I had to choose which feedback I would use, it would be conferencing face to face, but it's not feasible for every single paper, but I betcha that's what all of them would choose, too." Screencasting, from this point of view, should not be seen as a substitute for face-to-face conferences.

All of the interviewees compared screencasting to written comments, whether hand-written comments or typed marginal or summative remarks. Janey also found screencasting an improvement over her use of Microsoft Word's® TrackChanges feature, reporting that her students ignored TrackChanges and that they often did not understand written comments. Like Janey, the other four participants compared screencasting to other software and computing experiences. Daniel compared screencasting to software that allows for embedded audio comments. Several participants talked about the ability of screencasting to reveal what teachers are thinking. Janey felt that screencasting could improve classroom experiences because it reveals what feedback looks like for students, whereas written comments alone do not reveal what instructors think. She felt as though written feedback is better for certain assignments and screencasting better for others.

6.1.2. *Fostering communication*

When comparing screencasting to written comments, Janey discovered that students asked her more questions about her comments than when she used written comments alone. She also felt that students would talk more about their papers and brought their work to the instructor's attention, fostering greater interaction between students and the teacher. She wondered what theory might be behind the students' responses to screencasting and why they were more willing to have conversations about their work: "I think it started new dialogue with them about writing, I mean, that's my theory, anyway. Because I spoke to them about their papers, the feedback format, they then felt that they wanted to continue the conversation, so they brought it back to me and came and talked to me instead of, you know, just letting it rest."

In general, interviewees believed that screencasting can create a collegial atmosphere because talking, even though it is one-sided, lends itself to the feeling of working through something together. Thus, the level of engagement reported by the students is seen by the instructors as an increase in the communication rapport between instructors and students. Janey said, "The thing I liked about it the best was they said, you said this about my paper, and that actual kind of connection was important, and I do think they were more willing to watch that instead of reading the comments once and never looking at it again."

Furthering this idea of increased collaboration between the student and teacher, Debra felt as though her students were more willing to interact with her about their writing after receiving screencasts, and she felt as though the feedback method helped students move beyond just looking at a grade. She found herself having new types of dialogs with students about their papers and continuing conversations about writing with students over the course of a semester, rather than in isolated instances just when papers were due or when they were returned. From both Janey and Debra's perspectives, then, screencasting fosters more collaboration from both instructors and students. Additionally, Linda also reported that students communicated with her more about the comments in their papers, possibly because of the conversational tone of screencasts. She also felt that using screencasting promoted a better student–teacher dynamic, most likely because students were able to hear the tone in her comments. Linda explained, "I think [screencasting] offers the opportunity to comment more, [and] I think it gives a personal experience and fills the gap in what cannot be said through fingers typing on a keyboard because you have that voice, you have that personal attention, not the facial expression. I think just being able to move from one part of the paper to the other while talking about something, it gives a whole new dynamic to the feedback that you cannot possibly have in a comment in a note." Likewise, Janey said, "I do think that any time I've given spoken feedback, whether it's in person or in Jing®, it's more beneficial than written feedback, even picking up drafts where I was doing Track Changes when we were talking about the paper together, they have a tendency not to look at them, or I guess not understand it, as well, or maybe that's part of me, as well, that I'm better as a teacher portraying information verbally than I am written." Linda and Janey's comments align with [Thompson and Lee's \(2012\)](#) finding that screencasting improves a student–instructor dynamic because of the ability to hear tone of voice.

6.1.3. *Changing types of comments*

All of the interviewees discussed how screencasting changed the type of comments they gave on writing. Linda reported, "I felt that it sort of forced me to find a lot more ways to be positive or to be positive, [resulting in] a very good effect with the students. I also thought it forced me to look at the paper as a whole, which I've been guilty of focusing on grammar first, you know different things like that . . . but because I'm moving back and forward and interacting . . . , the understanding that my students had of those comments was better." Linda also thought that screencasting enabled her to teach grammar within the context of student writing. Overall, she believes that students need to internalize what writing problems mean and make an effort to learn conventions, and that screencasting allows her to use her voice to discuss rules. She felt that voicing the rules makes them more real, relevant, and valid to students: "I think it gave them rules right there in the writing with explanations, intonations, personal cares and concerns, you know, right there to make it more real to the students." Therefore, for example, rather than simply putting the commas in where they belong or taking the commas out where they don't belong, Linda was able to explain *why* a comma should or should not be used.

All instructors felt as though screencasting changed the length and detail of the comments in terms of how they responded to student papers. Helen said she was able to give more detailed feedback than she has using written comments and that in five minutes she could say more than she could write, noting, “If you were going to write down everything that you would say, that would be a lot of writing.” It would not, in the words of one instructor, “be feasible” to write as much as she could speak in five minutes’ worth of responding to a student paper. Linda noted that “certain comments that I wouldn’t have taken the time to write out, especially about more higher level things, I was able to articulate, in more depth, issues of content and the actual content of the paper.”

6.1.4. *Students’ perception of screencasting from the instructors’ point of view*

All of the interviewees said that students found screencasting feedback appealing. Daniel noted that his students were excited to receive their grades, and he deliberately avoided telling them in advance that he was going to use the technique so that he could surprise students with their screencasts: “My students were kind of caught off guard, and I wanted it like that, and so what I did was I sent them the link, and the very first thing that I said when they clicked on it was, ‘Hi student, this is um, I’m giving you feedback here. I like to think of this as a one-sided conference.’” Students enjoyed the screencasts and were amused by the “novelty” of the method and even told one instructor that it was “fun” to watch the video. Linda was able to tell that students with prior experiences with screencast assessment were more comfortable with this feedback method and that students who were unfamiliar with screencast assessment needed it explained to them so that they did not perceive it as an extra assignment. Helen reported that she was unaware of any negative responses from her students and that they were “excited” after receiving their grades and that they liked the “instant feedback.” Her students perceived the screencasts as instant feedback, even though they were recorded. She recalled students accessing their screencasts on their phones and listening to them using headphones before or during class, and while this use of the screencasts was not expected, it illustrates the way students will use them if available.

Most students told their instructors that they preferred a combination of written and spoken feedback in their screencasts. Linda also believed that the students who watched their screencasts reported positive reactions and especially liked the attention they felt they received: “They liked the personal attention, they felt they understood the feedback more than just the written comments, and they felt a little more personable towards me.” Students told her that they understood the feedback better than they understood written comments, and after the experience, the instructor reported that students seemed more outgoing toward her. This understanding on the part of the students is an important step for them to take on the road to developing more effective writing. Janey, Linda, and Debra believed that their students incorporated more of the feedback than they did when they used written comments alone. Linda also felt that students had a better understanding of her comments and that they were able to more effectively use her comments to improve their writing because of screencasting. Helen said, “They are getting more feedback, so they’re incorporating the feedback they get”; her comment suggests her belief in a “cause and effect” relationship between the amount of comments received and the ability of students to use more of it. Furthermore, all of the instructors reported that students responded in a positive manner and want to have conversations afterwards. In fact, Janey felt that students were more willing to watch the video than read her comments.

When responding to whether they thought students’ writing improved, instructors reported mixed impressions. Linda was unsure how student performance changed because of screencasting, reporting that it seemed that more motivated students learned more from the technique, but she was less sure about how less-motivated students benefitted. She thought that those who benefitted were able to gain understanding about how to become better writers. Although some of the instructors were interviewed before they had received their students’ final drafts, they had spoken to students who told them they were using the screencasting feedback to make changes, and that they felt that they were making better revisions because of it. Debra believed that her students did improve, and Helen’s students liked the method so much that they asked her to use it to respond to all of their work, including minor homework assignments and quizzes. Using screencasting in this way did not make sense to Helen, nor would most teachers want to invest in the technique for minor assignments. It did, however, alter the assessment process in a mostly positive way from the perspective of the

instructors and the students. Daniel noted that his literature class has small assignments the entire semester, “where there are blogs all the time and just one paper at the end,” so screencasting only at the end of the semester in that class would not show him whether the technique fostered improvement, whereas in his composition class, he would have an idea of its impact.

6.2. *Theme two: screencasting changes the grading process*

6.2.1. *Being able to say more than one can write*

The interviewees were interested in how the technique changed their grading processes and how they delivered comments. All of the instructors felt as though screencasting allowed them to say things that one might not normally take the time to write out. Daniel noted that he changed the way he talked in the screencasts depending on how well he knew students. He felt that because he could use his voice, he was able to lightheartedly point out problems such as a weak topic choice: “I was really snarky with one student who’ve I’ve had; he took my lit class last semester, and so he signed up for my comp class, and we get along well . . . it’s harder to pull that [a conversational tone] off in writing.” Because of the ability to modulate tone, rapport with students developed.

6.2.2. *Order of comments and ability to cross-reference*

Screencasting, because it incorporates movements on the screen, can change the order of comments. An instructor can show students around in a paper and discuss how writing works. Linda noticed that she would re-read papers that didn’t do well more than when she was writing comments. She also said that for her screencasting personalizes grading more than written comments alone and that speaking comments allows for a greater outreach to students based on individual learning needs. Likewise, Janey said, “I think I can give better directed feedback, or you know, putting a page of comments at the bottom to say to remind them of what they said on page 3. Normally, I don’t think they look back, so I like that part, [helping them] find it.” Screencasting provides an opportunity for instructors to help students see that much like the paper itself, the grade on a paper develops due to many different pieces working (or not working as the case may be) together.

6.2.3. *Macro and micro types of comments*

Debra, Linda, and Janey found that they commented more on macro-level concerns, articulating more in-depth content issues. They felt as though screencasting seems especially valuable for addressing higher-order-concerns. Linda found it more intuitive to mark on a paper (electronic or not) for micro-level concerns and felt that screencasting assessment is less helpful for micro problems like commas, punctuation, or spelling. For lower-level concerns such as these, screencasting has an additional benefit in that the instructor’s voice provides multilingual writers with an additional opportunity to hear English for a wider audience, as well as the sort of writing expected by most instructors in a university academic setting.

Linda also found herself focusing more on macro-level comments but would stop to point out grammar sometimes while commenting. Debra said that “for the upper level concerns, especially, I feel like that that’s probably more valuable. For some of the grammar and mechanics, I felt like . . . marking on the video while I was doing the video, so maybe for those lower level concerns, um, it probably wasn’t as useful as marking up a paper.” For Janey, using screencasting gave her a greater opportunity to consider unity, theme, and clarity and to offer students more help in those areas of writing. Because of its ability to expand upon an instructor’s ability to address macro-level concerns, screencasting can be valuable as part of an ongoing set of classroom practices.

6.3. *Theme three: instructors create individual workflow and time-management systems*

6.3.1. *Learning the program*

The first interview question asked instructors about their impression of how easy Jing was to use and how much time it took to learn the program. All instructors felt as though it was extremely easy to use the program, and most agreed that it was a little as five minutes or less to learn how to use the software. Debra said that “it was pretty intuitive if you have much experience with computers and

software; it's going to mimic other programs, um, nothing that's too difficult. The biggest setup issues were ones of like space, [and if it] it sounds good, I had a couple of tests and it sounded really grainy."

Instructors found it helpful to use training tutorials for the software, especially because it can be difficult to adjust some features the way the individual instructor would like it. The interviewees, as a group, felt as though practicing using the program was necessary in order to become efficient.

6.3.2. *Establishing workflow*

There was a consensus that, despite the ease of learning how to record what is on the screen, the overall workflow takes some time to establish, such as the steps involved in making the recording, saving it, naming it, sharing it, and uploading it. Debra said, "Getting ready for a new format was offset by ability to move through papers more quickly and methodically." Most of the interviewees reported that when doing the uploading (which happens in real time), the instructor can start screencasting the next student paper while waiting or can read and mark up the next paper while waiting for the screencast to upload to a storage site.

6.3.3. *Individualized practices*

All of the interviewees created individual systems for using screencasting to give feedback, noting that they found it useful to create grading and commenting systems that they tailored to their individual preferences, needs, and students. Debra said that she had to "set aside space and time" to perform the screencasts. Daniel developed a pattern for his talks and liked to begin by greeting the student and saying his or her name. Daniel said that he typed a few comments in a paper and then spoke a summary evaluation at the end of a paper. He liked the ability to highlight and point, explaining that the process provided visual cues. Like Daniel, who preferred to mark up a paper before screencasting, Linda routinely used codes for her written comments, which she did electronically when typing in the student's document. Janey found it helpful to organize her process by thinking of three things to say about what students should improve: "I don't have to organize it based on the paper, like when you're putting comments, I can say . . . number one, you need to look at this, number two, we need to look at this, and I move the paper around . . . so I think I can give better directed feedback." Despite this advantage, she said the practice also limited how much she could say: "I don't think it saved me a ton of time, but it does work to help me organize myself." Janey used a two-color system, with yellow highlighting indicating strong points and green highlighting indicating weak areas, because, she said, she wanted to make sure that the technique did not "make it harder on them" to understand her comments (as compared to when she typed comments in her usual feedback method).

Daniel created rules for himself to avoid excessive scrolling during the recording: "I have to keep my hand off, and so for me, I want to learn how to do that, but it was too important to me to make sure that I at least get something right, so I kind of dropped the screen capture part of it and I just focused on recording something. I knew that I had to keep my hands to myself." Janey said, "I don't want to make it harder on them. It works really well, if I think of something that I haven't highlighted when I'm doing it, I can say it. I don't want to scan through the document, either, which would probably make them nauseous [sic]."

6.3.4. *Workflow concerns with screencasting*

Instructors were all concerned about the following issues: convenience and access, software, storage and security, and time limits. Interviewees were also concerned about convenience. Screencasting is not a portable process because the instructor must be online. Linda felt as though the need to be online did not present any difficulty because she already asks students to contribute their work using Google-docs®. The process of screencasting may be less portable than paper grading for instructors than students, and several instructors mentioned having to restructure their grading time; one mentioned missing out on being able to be in the same room with her family when she was grading papers. Debra said, "A lot of times I would grade at home when other things were going on and I couldn't sit on the couch while [the kids] were doing their homework, like, I had to parcel myself off, and so that's a personal thing." Janey was concerned about not having access to university-purchased programs at home: "One thing I would say is, don't let them [administration] just put it in a specific lab. I grade at two o'clock in the morning and I won't come to campus."

The process of making, storing, and delivering the screencast tends to isolate and remove the instructor from grading in certain situations. Not only does the instructor need to be online, he or she must have enough of a quiet atmosphere so that voice recording is clear and uninterrupted. For example, it is difficult to assess in a busy room with any background noise, effectively foreclosing grading in a library, coffee shop, or at the kitchen table during busy times.

Instructors were also disturbed about having to redo videos sometimes, especially when free versions limit videos to five minutes. Creating a second video is inconvenient but sometimes necessary. Also, despite the ease of the learning curve, there were some problems with the software. Daniel indicated that he like tinkering with software and that grading with screencasting was fun; he was especially interested in interfaces and wondered if the program might be too simplistic, noting that stripped-down software can cause unexpected problems, especially because it can limit the user's ability to make choices. Although he liked the "familiar" look of the interface, saying it "looks like an old tape deck with buttons, and I can deal with that," he did find the adjustment features limited. Several of the interviewees felt as though the software was buggy. All felt as though it was best to test the software, watch online tutorials of how to use it, and play with the program in order to streamline the feedback process. Janey felt that screencasting was easier to do when one is already comfortable with computers.

Furthermore, several instructors noted that sound quality can be a problem, and Debra worked with adjusting and fixing the sound quality to polish the sound for students. She said that students are exposed to slick productions on YouTube, for example, along with a large number of more amateur videos. Debra noted, however, that students appreciated what she referred to as the "home grown" quality of the screencast, that is, its simple production values. Students liked the simplicity, most likely because a less-produced feel contributed to the sense of personalized instruction. All of the instructors were concerned about security, particularly with the need to be careful in how they store the screencasts online. One instructor was concerned about students' seeing one another's grades. One possible solution is to create an online folder for each individual student, but it is not necessarily easy to set security features without having to have students create accounts or passwords. Furthermore, several of the interviewees were concerned that too many steps are required to access the screencasts; students might be discouraged from watching. When it is not easy and fast to access, students might give up.

Our final research question was whether or not the instructors felt screencasting was a worthwhile endeavor in terms of student growth as writers and in considering the time it took them to learn the program and assess the papers. It was difficult to decide whether or not screencasting saved time because there were other issues about performance anxiety with grading that seemed to cloud the findings. Although this is an important issue that deserves research, it went beyond the scope of this project. However, there was a consensus among the interviewees that they were worried about the quality of their performances.

6.3.5. *Time limits*

Although none of the interviewees reported any time-saving from screencasting, two noted that it helped them organize themselves for grading. Debra said it was easier to "systematize" one's screencasting method over time and move through the steps more fluidly, "getting into a rhythm after setting up" and practicing one's workflow. Janey thought it helped streamline grading because the instructor needs to decide what to discuss and think about what comments to say. Linda said that using a rubric helped her stay on the five-minute limit set by the program: "I think what it does do is it helps me streamline what I'm going to talk about. I have to go with the rubric because I only have five minutes to talk."

6.3.6. *Costing time*

The most overwhelming problem reported by all interviewees was a concern about the amount of time they spent grading. Helen said, "In general, it cost me time," noting that using screencasting took her than her usual grading practice. Although she felt as though screencasting cost her a great deal more time than typing comments, importantly, she thought that the method allowed more

thorough commenting. She compared it to writing a letter to a student. Helen also found screen-casting to be less efficient than writing comments. Furthermore, she disliked the sound of her own voice and was frustrated by being unable to edit the videos and feeling as though she needed to do videos over when she made errors speaking. Such re-dos can cost a great deal of time, and on-the-fly editing would remedy this problem. As Helen said, “There’s no editing function, so, if you, mis-speak partway through after three and a half minutes, you have to start all over, so if you could edit, that probably would be a time-saver, actually. What could take you five minutes to say could end up taking possibly ten or fifteen.” In other words, just because the program has a five-minute recording limit, it does not mean that only five minutes were spent making the recording. Furthermore, Helen noted that her editing and time spent correlated with the severity of the student’s writing error: “Sometimes, I’ll just correct myself and it’s okay, [but] if it’s a bigger stakes item, I have to do it over.”

6.3.7. *Taking same amount of time as writing comments*

The other four interviewees said that screencasting took them about the same amount of time as grading using written comments:

- “I would say it was probably a wash. Getting ready for a new format was offset by ability to move through papers more quickly and methodically, so I would say that I probably spent about the same amount of time.” (Debra)
- “I didn’t think it cost me time, um, I probably spent [the same number of] minutes either way per paper. So, I think what it does do is it helps me streamline . . . what I’m going to talk about. I have to go with the rubric because I only have five minutes to talk.” (Janey)

6.3.8. *Worth the time*

There is an initial investment of time required to learn the program and set up workflow. Saving time is not a given, because learning the software requires an investment of time in and of itself. Janey thought it was worth the time to invest in learning how to use screencasting for assessment, and that there was a trade-off in the time invested with the ability to offer better comments on student writing. She felt that the ability to speak comments faster than one writes evens out the time spent with the workflow of saving, uploading, and sharing, ending up making the time spent equal to what it would be using written comments alone. It appears as though setting up the workflow and the actual time spent in the entire grading process makes it less of a time-saver than one might expect, even though the process of commenting on a paper itself might be much faster. Daniel felt hindered by the five-minute limit in the free version of the software and was continually concerned about going over the five minutes when speaking. Conversely, he thought the time limit helpful in preventing him from rambling and thought the method encouraged him to be more thoughtful and organized about what he used for comments. As he put it, the method helped him “prioritize.”

6.3.9. *Belief in possible time-saving*

Although all of them believed that practicing using the program would eventually save them time, they did not believe it saved them time during the study. Repeatedly, interviewees said that they thought it *possible to save time* using the software, if they had practice. They hoped the method would permit time-saving, expressing a need to feel secure in knowing students were using their screencasts and a need to feel as though the time invested in giving feedback were valid, especially because we are often unsure how students use teacher feedback, whether screencast (ed) or not.

We also found that through the use of screencasts, instructors and students become aware of the instructor as a reader because the thinking process of assessment is revealed. Much like think-aloud protocols (Barkaoui, 2011; Cohen, 1994; Jefferey, 2011; McAlpine, 1987; Moore & Filling, 2012; Weigle, 1994) the screencast performance un masks how instructors feel and think because the instructors are seen by the students as readers. A student can experience assessment as a process, which in turn upholds teaching writing as a process. The instructor’s role expands beyond arbiter or

judge to performer when the student can see and listen to the assessment process in a screencast. The social aspect of technology, along with transparent teaching strategies, increases the possibility for effective feedback. Arvidson and Huston (2008) illustrated how revealing what is otherwise concealed information can prove an effective strategy for teachers to improve student learning. The findings from this study provide support for this idea. From the instructors' perspectives, the students believed that they understood better how their writing was assessed. The students felt as though instructors were being transparent with the thinking processes they used to assess student writing.

By having a video that allowed the student to move through the paper with the instructor, while at the same time the instructor's voice talked about the pros and cons of the paper, instructors were exhibiting what Arvidson and Huston (2008) considered the "honesty and courage" of transparent teaching, which they defined as an intentional practice of encouraging openness between instructor and student through teaching practices (p. 4). This type of transparency caused the instructors in our study to note that they felt they had established better relationships with their students. Wisheart (2004) asserted the importance of teachers in training learning how to be passionate, transparent instructors. Transparency engenders trust (Brookfield, 2006; Bulach, 1993), and with trust, students are more likely to self-assess and follow other metacognitive strategies to monitor their own performance (Gillespie, 2002). A number of researchers have noted the importance of the perception of trust a student feels toward the instructor (Bain, 2004; Brookfield, 2006; Bulach, 1993; Curzon-Hobson, 2002). Again, our findings provide support for the efficacy of such transparent pedagogies being used, at least in the assessment process.

We also found that one main concern of many writing instructors is that students do not focus on the substantive changes the instructor suggests in drafts of paper; instead, they focus on the minor mechanics and usage issues pointed out. A number of instructors may have experienced the frustration of providing detailed feedback on drafts and having the final draft returned by a student with the only changes made consisting of the addition or deletion of commas—as if the comments on the other elements weren't even there. Both the survey data and the interview data provide evidence that using screencasting helps students understand how to make those macro-changes that create an overall more effective piece of writing. As one of the instructors we interviewed pointed out, "For the upper level concerns, especially, I feel like that that's probably more valuable." Thus, if instructors believe this is a concern for their students, it would be beneficial for them to use screencasting to provide feedback.

As with any type of assessment practice, there are pitfalls. We also believe that while screencasting proves an important tool in a writing instructor's arsenal, there may be certain types of assignments and pedagogical objectives which might make screencasting less effective. In order to provide some guidance, we would like to offer some final suggestions to those who may be considering using screencasting to provide feedback on students' work:

- Summative evaluations of a number of assignments could work well, such as comments on homework collected over time in a blog or journal.
- One should be careful not to move around in the paper too much because it can be disorienting for the student viewer and even cause a sort of motion sickness.
- Rather than writing a narrative at the end of a paper, screencasting feedback encourages commenting throughout a paper.
- To create an effective screencast, one should balance the audio and visual aspects of the recording.
- Keep in mind, as Dagen et al. (2008) note, that too much feedback can remove ownership or marginalize student voices.

6.4. *Theme four: performance anxiety about screencasting and general anxiety about grading*

Debra and Daniel both believed that they had a tendency to ramble, whereas Janey believed that she is better at speaking her comments than in writing them and that speaking is a better way of communicating about writing than writing often is. Daniel remembered being preoccupied with being

precise and so focused on speaking that he eventually stopped using screen tools, such as highlighting and scrolling. Daniel said, “The first one I did, I recorded it like eight times” because of the desire to get it “right.” Nevertheless, he was more interested in the ability of the audio portion of the screencast’s ability to help student writing and said he “cheated” and wrote (by typing on the document) more comments than he initially intended.

Both David and Linda were also worried that when comments are written in conjunction with embedded audio, students might skip listening to comments. Daniel was concerned about student confusion and would like to figure out how to encourage students to pay more attention to the embedded link he would place in their papers to direct them to the screencast stored online. Likewise, Linda had trouble understanding how students missed the instructions to find the link in their papers and felt that higher-performing students used the feedback more. She learned that some students ignored or overlooked the screencast link, so they never watched the feedback video at all. For all of the instructors, except for Helen, they felt that the time invested in screencasting was worthwhile. Helen was unsure but thought that it could be beneficial, and noted that over time she could see how it would be helpful for her in terms of time and helpful for the students in terms of growth as writers.

7. Conclusions

From the students’ perspectives, they find this method of feedback much more preferable to the more traditional types of feedback given. More importantly, they were more likely to try to incorporate the suggestions into their revision process. The fact that, on average, the students watched the video three times provides important evidence that if writing instructors want their students to focus on the feedback they provide, then using this type of screen-capturing technology may be a solution. One female student who is a junior strongly disagreed with all of the preference questions, which may indicate that some of the students who have waited to take these classes (usually taken in the freshman and/or sophomore year), may prefer a more traditional way of receiving feedback. However, there are not enough participants to make any generalizable statements.

7.1. Limitations

Although we argue here that screencast assessment is a useful pedagogic method for writing instruction in composition classes, there are limitations to this study. Including the qualitative analysis of a small, pilot study of this type always presents problems, in that the data is not generalizable, and a number of factors influence student performance and instructor assessment. It is also difficult, if not impossible, to state the degree to which students’ writing could improve over the course of a semester based upon one survey questionnaire. Additionally, while the findings from the students were overwhelmingly positive, only 41% of the students invited to participate actually completed the survey. Thus, selection becomes an issue because it is possible that only students who really enjoyed the screencast of their paper took the time to actually complete the survey. So, while the findings are intriguing, the small sample size limits the findings generalizability. Nevertheless, this pilot study does suggest that screencasting is worth exploring as an assessment method and provides insight into students’ preferences for how they receive feedback, as well as what the feedback contains. Millennial students, as we found, prefer the use of multiple modes of information in order to keep their attention.

As promising as screencast assessment sounds, in order to create screencasts a number of factors must be considered, not the least of which might be financial. Although for this study a free version of Jing® was used, along with free storage space on screencast.com (www.screencast.com), screencast software with a larger number of features costs more. In addition, we recommend high-speed internet and a computer with a hard drive large enough to support it, as well as a gamer headset with headphones for the ears and a microphone. Additionally, screencasting software can and does freeze. We also realize that using this requires a lack of fear to try technology on the part of the students and teachers, although both report the ease of use. For instructors, there is a portability

problem, in that screencasting is not easy to do with an audience (roommates, other people who live in the house). In a study of written feedback on student compositions, Ferris (2003) noted that students become anxious and shut down when written comments are excessive; similarly, Dunne and Rodway-Dyer (2009) found that audio recordings of comments on compositions that lasted from ten to twenty minutes prompted complaints by overwhelmed students. By extension, with screencasting, lengthy videos could supply too much information and have a similar effect.

7.2. Recommendations for future research

It would be beneficial to conduct research on screencasting with larger sample sizes because having a larger sample size would allow for more generalizability. It may very well be that different demographic groups would respond differently to this form of assessment; however, without a larger sample size it is difficult to tell. There was no pre-survey given at the beginning of the semester, and a comparative analysis would have proven productive. Further, it might be important to compare screencast assessment and text-based assessment from the same instructor with the same students rather than their knowledge of grading from past writing experiences in other classes. It would help eliminate concerns arising from the fact that students may just prefer the way a certain instructor provides feedback, regardless of the mode. Finally, issues around the “performance” of grading on a screencast may make it a tool that is more beneficial for some instructors than others. If, no matter how much training is provided, individuals do not feel comfortable having their voices recorded and are thus unable to provide effective feedback due to this concern, it may be better for those instructors to continue to use traditional written feedback until they can become comfortable with the performative aspect that this assessment method entails.

Appendix A. Multi-Modal Assessment Student Survey

The goal of this survey is to assess the efficacy of multi-modal feedback. The information will be used for research purposes. As such, the findings of the study will be published and/or presented at conferences. Before you being the survey, please be aware of the following:

- Your participation is entirely voluntary. You may choose to discontinue the survey at any time and/or choose not to answer certain questions.
- Your responses will remain anonymous and the course instructor cannot determine which survey you completed. Complete confidentiality will be maintained. At no time will your identity be revealed either by the procedures of the study or during reporting of the results.
- No negative consequence will result for choosing not to participate.

Directions: Please describe what you really think and feel; this information will be the most helpful in trying to find out how to improve the assessment process for students and faculty members in the future. During the course of the semester, you received feedback using JING. The questions will start by asking you general questions about receiving feedback on writing assignments, and then you will be asked to compare the type of multi-modal assessment you have received in this course with the more traditional feedback (written comments from the instructor) usually received on writing assignments. Thank you for participating in this research.

Attending/Engagement:

- | | | | | | | | |
|----|---|----------------|-------|----------|-------------------|---|---|
| 1. | Compared to more traditional feedback, I think that I paid more attention to my instructor's comment with Jing. | Strongly Agree | Agree | Disagree | Strongly Disagree | | |
| 2. | Compared to more traditional feedback, I think that Jing helped me better understand how to go about revising my writing. | Strongly Agree | Agree | Disagree | Strongly Disagree | | |
| 3. | Compared to more traditional feedback, I think that Jing made me a better writer. | Strongly Agree | Agree | Disagree | Strongly Disagree | | |
| 4. | On average, how many times did you watch your Jing video. | 0 | 1 | 2 | 3 | 4 | 5 |

Incorporation of Revision:

- | | | | | | |
|----|--|----------------|-------|----------|-------------------|
| 5. | I gained a better understanding of how to organize my writing due to the feedback received through Jing. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 6. | I was able to create better arguments due to the feedback received through Jing. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 7. | I was able to elaborate better due to the feedback received through Jing. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 8. | I gained a better understanding of my issues with mechanics and usage due to the feedback received through Jing. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 9. | I gained a better understanding of how to structure my papers due to the feedback received through Jing. | Strongly Agree | Agree | Disagree | Strongly Disagree |

Feedback quality/quantity:

- | | | | | | |
|-----|--|----------------|-------|----------|-------------------|
| 10. | When compared to other writing classes, I think I received more feedback on my writing in this class due to Jing. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 11. | When compared to other writing classes, I think that I better understood the feedback on my writing due to Jing. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 12. | When compared to other writing classes, the comments I received helped me understand what I needed to do to improve my writing due to Jing. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 13. | When compared to other writing classes, I received feedback that helped me understand how to revise my papers beyond just issues with mechanics and usage. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 14. | When compared to other writing classes, I believe the feedback on Jing helped me become a better writer. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 15. | When compared to other writing classes, I believe the feedback on Jing helped me write better papers. | Strongly Agree | Agree | Disagree | Strongly Disagree |

Preference: For the following questions,

- | | | | | | |
|-----|--|----------------|-------|----------|-------------------|
| 16. | I would prefer to receive feedback on Jing, as opposed to traditional written comments, to help me deal with mechanics and usage issues. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 17. | I would prefer to receive feedback on Jing, as opposed to traditional written comments, to help me deal with organizational issues. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 18. | I would prefer to receive feedback on Jing, as opposed to traditional written comments, to help me deal with issues pertaining to elaboration. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 19. | I would prefer to receive feedback on Jing, as opposed to traditional written comments, to help me deal with structural issues. | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 20. | I would recommend that other writing instructors use Jing, as opposed to traditional written comments, in their classes. | Strongly Agree | Agree | Disagree | Strongly Disagree |

Please complete the following demographic information:

Gender: Male: Female:
Age: 18–20: 21–23: 24–26: 27–29: 30+:
Class Level: Freshman: Sophomore: Junior: Senior:

Appendix B.

- How user friendly did you feel Jing® (screencasting) was?
 Prompt: Did it save you time or cost you time?
 Prompt: How much time in learning to use Jing® (screencasting) effectively did you feel was required?
- Did you feel you were able to give more feedback using Jing® (screencasting) when compared to written comments?
- Did you feel you were able to give better feedback using Jing® (screencasting) when compared to written comments?
- From your perspective, how did the students respond to this mode of feedback?
- From your perspective, did the students incorporate more of your feedback using Jing® (screen-casting) when compared to written comments?
- Did you feel using Jing® (screencasting) helped your students become better writers?
- In a broad sense, how do you feel Jing® (screen-cast) feedback compares to more traditional written comments? (Prompt: What were the benefits and costs of using Jing®/screen-casting?)
- Is there anything else you would like to say about your experiences using Jing® (screen-casting) as a method of feedback?

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