

Student Perceptions of Screencasted Feedback

Jonathan MacKeith Harding

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Chris Lindgren, Committee Chair

Carolyn Commer

Quinn Warnick

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ABSTRACT

This study addresses student perceptions of screencasted feedback compared to traditional written comments. Screencasts allow instructors to provide audio-visual feedback on a student's essay that is captured directly from the instructor's computer using a screencasting software. Using survey results from 31 first year composition students, this study found that students generally perceived screencasted feedback to be easier to understand, more engaging, and more helpful than traditional written comments. It also found that students perceived a stronger rapport between themselves and their instructor after receiving screencasted feedback, and that students generally prefer receiving screencasted feedback over written comments on their essays. This study was not able to discern if student writing improved more with screencasted feedback compared to written comments, nor was it able to definitively say if students were more motivated to improve their writing after receiving screencasted feedback.

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GENERAL ABSTRACT

This study examines student perceptions of screencasted feedback compared to traditional written comments in a first-year writing course. Screencasting feedback allows instructors to comment on students' essays in a short video rather than writing comments in the margins and a paragraph at the end of their essays. This study looks at the results from 31 first-year composition students and found that students generally perceived screencasted feedback to be easier to understand, more engaging, and more helpful than traditional written comments. This study also found that students perceived a stronger connection between themselves and their instructor after receiving screencasted feedback, and that students generally prefer receiving screencasted feedback over written comments on their essays. This study was not able to discern if student writing improved more with screencasted feedback compared to written comments, nor was it able to discern if students were more motivated to improve their writing after receiving screencasted feedback compared to written comments.

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Student Perceptions of Screencasted Feedback in First Year Composition

1 Introduction

During my senior year of my undergraduate work, I was put through the gamut of feedback styles. In one class I would receive nothing but a letter grade at the bottom of the page on our weekly writing assignments; leaving me to conduct a trial and error study in an attempt to decipher exactly what it was that the professor wanted. Sometimes, I wouldn't receive my single letter grade before the next assignment was due, which complicated my trials. Another professor simply wrote "sensible" at the end of a ten page essay next to an A- that had been scratched out in favor of a B+. Other professors wrote notes in the margins on hard copies, or in bubbles and in comment boxes online. None of these were helpful strategies. One professor, however, sent out an email with detailed instructions on how to view our screencasted feedback. I opened the video file, and was greeted by my professor's voice while looking at a copy of my essay. She spent a few minutes presenting the feedback verbally while scrolling through my paper. It was great. I was in my senior year, and this was the first time I came away from an essay knowing what I could do to improve it, and also wanting to improve it. It wasn't just about the grade anymore; I had received the grade I wanted and still was motivated to improve.

Preparing for my first semester teaching first-year composition, I tried to remember the frustration of receiving cryptic feedback or no feedback on an assignment, and resolved to provide the best feedback I could. The first major essay came in; I highlighted and inserted bubble comments on their drafts on Speedgrade, an annotation tool that allows the instructor to highlight text, strikeout text, add bubble comments to the margins of the essay, add comments directly into the essay, and draw boxes and shapes directly onto the essay. I provided detailed

comments in the end comment box. After releasing the feedback, I asked my students in class if they had seen my comments, understood what I was saying, and if it was helpful to them. They all said they had, and did, and it was. I was very proud of myself. As the semester progressed the same issues continued to appear in their writing, but my pedagogy classes had taught me that writing was a process and it often took a long time of continual guidance for a student's writing to improve significantly. The first draft of the second major assignment came in, and I commented on those as quickly as I could. But little changed in some of the student's writing between the first draft and the final draft. So, I decided to conduct an experiment. I told them I had released their feedback, and asked if they had seen it, understood it, and found it helpful. They said they had, and did, and it was, but I hadn't yet released their feedback. I later learned most of them did not know how to view their feedback in Speedgrader, even though I had demonstrated the procedure on the projector in class. They had looked at their grades, and nothing else. I was angry, hurt, and frustrated. I felt like I had failed, and had wasted hours of my time that I could have been using to focus on my own classwork.

The final major essay came in, and I screencasted their feedback. I explained it, showed my students how to open it in class, and gave them time in class to view the video. They pulled out their headphones, and I heard one of the most satisfying expressions I've heard in my short teaching career, "Oh cool."

This moment caused me to question what leads to this "oh cool" reaction? For me as a student it was how helpful the feedback was. How clearly I could understand what needed to be improved, and how I could improve it. As an instructor, the screencasting modality itself seems to elicit that reaction.

In order to determine if screencasting as a feedback modality enhances student engagement, how understandable and helpful students perceive screencasted feedback, and also to discern whether screencasting feedback to students provides instructors with a greater return on their time invested in giving feedback, I created the following research questions:

1. (How) Do students perceive screencasted feedback as being easier to understand than written comments?
2. (How) Do students perceive that screencasted feedback is more engaging than written comments?
3. (How) Do students perceive screencasted feedback as being more helpful than written comments?
4. (How) Do students perceive that screencasted feedback builds a stronger rapport with instructor?
5. (How) Do students prefer screencasted feedback over written comments?

1.1 Student Engagement Issues

West and Turner (2016) call feedback “one of the least satisfying aspects of the student experience” (p. 400). Jones, Georghiades, & Gunson (2012) suggest student dissatisfaction is in part due to students expecting more and more as their tuition and fees increase. Though, it may be more than just entitled expectations due to high tuition and fees. Students face myriad problems when dealing with feedback. Students feel that feedback comes too late, is too vague, and is inconsistent (Crook *et al.*, 2012). For handwritten comments students cite difficulties reading their instructor’s handwriting, and not understanding their instructor’s comments (Crook *et al.*, 2012). Students also desire more specific command, and often find comments cryptic and of little use to them in the revision process (Sommers, 2006). Borup, West, and Thomas (2015)

found that “students [feel] entitled to timely feedback, reasoning that if students paid their tuition and completed an assignment on time, they were entitled to timely feedback on that assignment” (p. 164). In their study “80% of the 3135 participants in a large mixed-method report reported not receiving instructor feedback until three or more weeks after submitting an assignment” (p. 164-165). Students also found much of their feedback to be impersonal and uncaring, and, worse, when provided feedback by checked boxes in a rubric students felt insulted by the lack of effort put in by the instructor (Price, Handley, Millar, & O'Donovan, 2010). Students felt that the instructors offering feedback did not care enough to spend time on their feedback.

With student frustrations high and engagement low, it is important to find ways to improve these two facets of feedback. In my experiences as a student, screencasted feedback improved my engagement and satisfaction with feedback overall. Screencasted feedback also gave me the feeling that my instructor cared about my feedback, my essay, and me. Do other students have the same feeling concerning these different aspects of feedback? In the next section I'll discuss instructor's perceptions of student engagement with feedback.

1.2 Instructor Awareness of Engagement Problems

Instructors are also frustrated by the feedback process in higher education. Especially in larger classes, or with instructors who teach multiple sections, the process of giving feedback is repetitive and time consuming (Crook *et al.*, 2012). West and Turner (2016) found that faculty also perceive a “lack of student engagement and responsiveness to feedback” (p. 400). Price, Handley, Millar, & O'Donovan (2010) found that instructors “recognized the place for feedback in learning and had faith that it made a contribution to learning... however, they lived with dissonance about its benefits and their beliefs and limited extent of student engagement” (p. 282). Mulliner and Tucker (2017) found that only 35% of instructors thought that students

“always read the qualitative feedback,” (p. 277) and only 38% believed that students always viewed marked assignments. They also found that 94% of instructors believed that students were more interested in the grade that they received than the feedback that accompanied it. Vincelette and Bostic (2013) express frustration with students who only correct lower-level issues such as grammar, mechanical problems, and usage errors, and do not engage with feedback on global level concerns. It’s hard to justify the time spent on feedback when an instructor does not expect the students to take their feedback into consideration, and maybe not even look at it.

In the next section I will briefly discuss existing scholarship about student engagement and preferences concerning different feedback modalities.

1.3 Review of Student Engagement with Feedback Modalities

1.3.1 Student Engagement with Feedback in General

Students in first-year composition may not know how to engage with, or why they should engage with, feedback provided to them on their writing (West & Turner, 2016). In order for students to engage with feedback they need to understand the feedback provided to them, how that feedback relates to the assessment rationale, and how that feedback fits into the process of assessment and revision. In order for students to understand this, feedback needs to be direct, unambiguous, and helpful (Mulliner & Tucker, 2017; Crook *et al.*, 2012) Students who feel that the level of detail in the feedback, and how much the feedback helped them understand their mark were more likely to be satisfied with feedback overall (Sopina & McNeill, 2015). To provide detailed and helpful feedback instructors should give feedback in a language that is explicit and free of ambiguous phrases or jargon (Mulliner & Tucker, 2017). Studies have shown that providing students with explanatory feedback that promotes student learning increases a student’s willingness to engage with feedback (West & Turner, 2016). Also,

feedback that encourages open and continuous dialogue between an instructor and students is shown to engage students and encourages students to act on their feedback when writing in the future (Mulliner & Tucker, 2017).

1.3.2 Student Perceptions of Textual Feedback in the Literature

Traditionally textual feedback and corrections have been handwritten, but more recently instructors have been able to provide textual feedback in a variety of digital formats (Lenards, 2017). Microsoft Word's "track changes" function allows instructors to crossout, edit, and provide bubble comments in the document that the student submitted, and a variety of grading programs exist, such as Speedgrader, that make comments on a submitted copy of the document and leaves the student's original document intact (Lenards, 2017). A recent study by Sopina and McNeill (2015) suggests that students had no preference between handwritten textual comments and textual comments left digitally, and that the quality of the two commenting styles was comparable. However, other studies show that students prefer digital text feedback for a number of reasons. The first being that it can be stored on a hard drive and referenced quickly, and thus students were more likely to go back and refer to text feedback if it were left digitally than if it were written on a hard-copy (Parkin, Hepplestone, Holden, Irwin, & Thorpe, 2012). Students admitted that while they would not throw away a hard copy of an essay with feedback written on it, most rarely referred back to it. Students were more likely to revisit feedback that was provided through a learning management system such as Canvas or Blackboard because it stores all the information-essay, grades, and feedback-in one place (Parkin, Hepplestone, Holden, Irwin, & Thorpe, 2012, p.966). Hope's (2011) study also suggests students are more likely to engage with typed or digital feedback because of legibility issues with instructor handwriting. If a student cannot decipher what is written then the feedback left is of little value to the student in the future.

Mulliner and Tucker (2017) found that when given the choice between audio, text, and face-to-face verbal feedback, forty nine percent¹, students prefer their feedback in text (p. 272-273).

West and Turner (2016) found that twenty one percent of students preferred text feedback when deciding between text, audio², and screencasting (p. 405).

1.3.3 Student Perceptions of Audio Feedback in the Literature

Ice *et al.* (2010) found that students prefer audio feedback over text “in relation to clarity, motivation, retention, presence³, and level of care provided by the instructor” (p. 115). Students were also better able to understand the intent of the instructor’s feedback (Ice *et al.*, 2010). The students also felt more involved with their education when feedback was provided in audio format rather than text. One main contributor to the preference for audio feedback was the student’s ability to understand nuance in an instructor’s feedback compared to text only feedback which lacks the vocal cues (Ice *et al.*, 2007). The lack of nuance could lead to a lack of understanding and, therefore, less engagement. Ice *et al.*’s (2010) findings were specific to online courses and may not have a direct carry over to face-to-face classrooms. Other studies have shown that audio feedback is perceived by students as both helpful, and likely to increase their involvement in face-to-face classes (Denton, 2014). Though, Mulliner and Tucker’s (2017) study found that only two percent of students preferred audio feedback, while forty six percent preferred individual conferences, and forty nine percent preferred text feedback (p. 272, 273). West and Turner (2016) found that only one percent of students preferred audio feedback when given the choice between audio, text, and screencasting (p. 405).

¹ Thirty percent preferred individual typed feedback, and nineteen percent preferred handwritten comments.

² Audio feedback is strictly an audio file- no visual component- where an instructor gives verbal feedback to the student. Audio feedback is typically recorded digitally as an .MP3 file that can be uploaded to a learning management system or sent in an email. Audio feedback has also been recorded on audio cassettes and handed back to students, or mailed to them.

³ Research was conducted on an online student population. Presence refers to the students feeling like they are part of a learning community.

1.3.4 Student Perceptions of Face to Face Conference Feedback in the Literature

Face-to-face feedback is widely considered the most effective form of feedback instructors can offer (Silva, 2012; Jones, Georghiades, & Gunson, 2012). Silva (2012) argues face-to-face conferencing offers the “most optimal method for of teacher feedback in which every student concern can be brought to the table,” (p. 4) and where instructors are able to “elaborate on their intentions” (p. 4) for feedback and revision. It also opens up pathways to dialogue that “directly addresses the problem of miscommunication” (p. 4) that hinders student engagement. In Mulliner and Tucker’s (2017) study they found that 94% of students believed that face-to-face feedback received through conferencing was “very effective” (p. 271). However, only 46% of students prefer face-to-face feedback over written and audio feedback (p. 271). Parkin, Hepplestone, Holden, Irwin, & Thorpe (2012) suggest that this may be due to students wanting to view their feedback in private first saying that “privacy enables students to engage with and respond to their feedback when they are emotionally ready” (p. 966). The lower preference for face-to-face feedback may also be due to the inconvenience of having to set up a time to meet with the instructor (Silva, 2012). Students also may not view face-to-face conferences as feedback, believing that feedback only comes in written form on the assignment they turned in (Crook *et al.*, 2012).

1.3.5 Student Perceptions of Screencasted Feedback in the Literature

Crook *et al.* (2012) theorizes that “technologies may... provide the innovative edge that can help students engage more effectively with their feedback” (p. 387). Sixty percent of students in their study believe that screencasting encouraged them to pay more attention to their feedback, and 61% said that they had viewed their feedback more than one time with one student saying they had watched it six times. West and Turner (2016) also found that screencasting

feedback increased student engagement and concluded that it was the modality's ability to provide specific and detailed feedback that accounted for the increase. They also found that more than 60% of students preferred screencasted feedback compared to written, or audio feedback. Yuan and Kim's (2015) study found that screencasted feedback was engaging for students, and that it was more more likely to open up lanes for dialogue between students and instructors. Along the lines of Ice *et al.*'s (2010) findings concerning audio feedback, Hope (2011) found that students were engaging with vocal cues present in screencasted feedback. She also noticed students were taking notes based on the screencasted feedback she provided, which she claims indicates a deeper level of engagement. Hope (2011) did concede that there maybe a novelty factor in the level of engagement. However, Turner and West (2016) believe it's not only the novelty factor driving engagement with students as they found an even stronger preference for screencasted feedback in third year students than in first year students.

2 Methods

2.1 Introduction

To extend the scholarly conversation about student engagement with feedback, I designed a study to try to determine whether screencasting feedback can address these concerns.

Specifically, do students perceive screencasted feedback to be easier to understand, more engaging, and more helpful? Do students prefer screencasted feedback and are they more likely to utilize screencasted feedback? These results may be able to help students improve their writing, and assuage instructor frustration with the feedback process and the perceived lack of student interest in their feedback.

This chapter gives an outline of the research methods I used for this study. It provides a look into the technology I used to provide student feedback, the feedback strategies I used when giving feedback and whose work informed those strategies. It gives an objective overview of the survey layout block by block, describes decisions made pertaining to research and survey design, and provides information on what influenced those decisions. It discusses how I analyzed the data, and, lastly, the ethical decisions taken into account during the study.

2.2 Feedback Delivery

2.2.1 *Feedback Technology*

For this study, screencasts of feedback were created using a free software called TinyTake, developed by Mango Apps. The free version of TinyTake allows the user to create five minute long screencasts which can be saved to tinytake.com, saved locally on the user's hard-drive, or uploaded directly to Youtube.com⁴. For this study, I saved the screencasts locally to a hard-drive and then uploaded the files as multimedia comments directly to the Students'

⁴ There are privacy settings in Youtube that would allow an instructor to share a private link with students that is FERPA compliant.

assignment submissions in Canvas. Before I recorded the screencasts, I read and highlighted student essays using Canvas' Speedgrader function. As seen in Figure 1 below, TinyTake allows the user to select an area on the screen and only what is inside that area will be recorded and saved. The user may still use functions outside the area, but viewers of the video will not be able to see this.

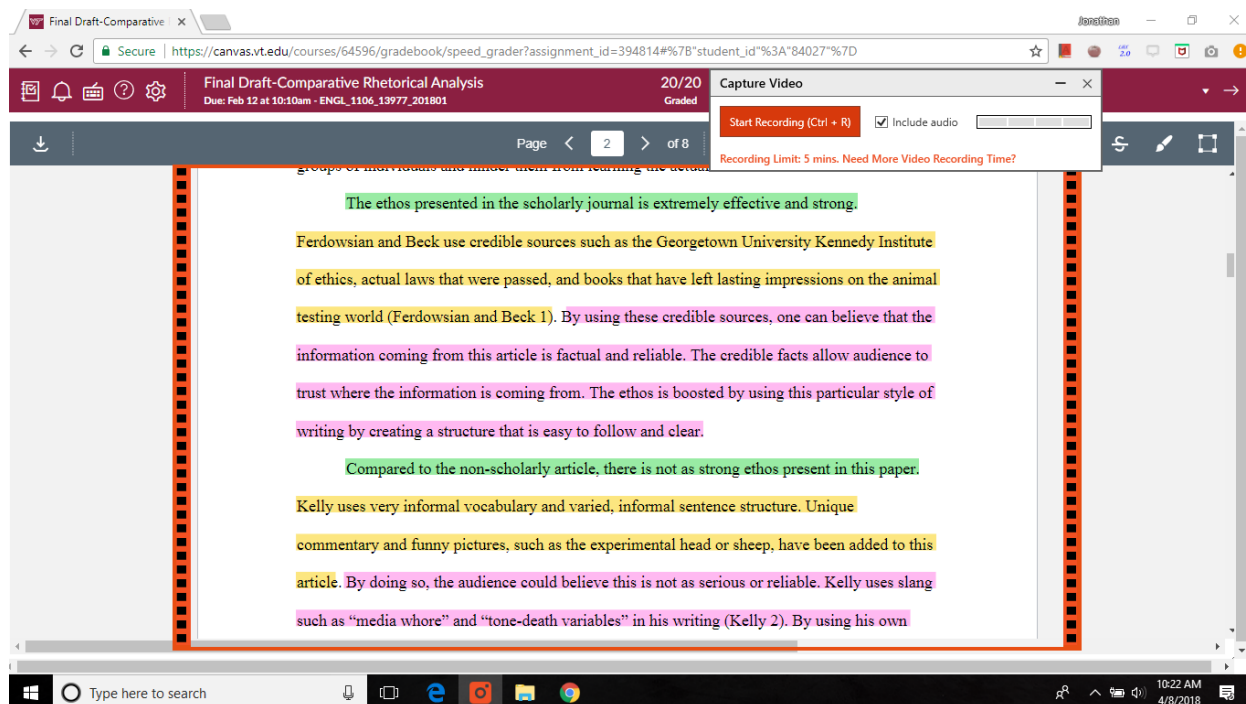


Figure 1 shows a screenshot of the instructor's screen. Only what is included inside the orange box will be recorded for students to see. Recordings can be started by pushing the orange button that says "Start Recording" or by pushing Ctrl+r. An example of highlighting in Speedgrader can be seen on the student's essay.

Once a screencast begins recording on TinyTake it can only be paused and restarted. There are no editing features on TinyTake. Other screencasting applications can be purchased, such as Camtasia at a price of \$199, that offer more editing features directly in the program, and also allows the user to create screencasts that are longer than five minutes. However, Vincelette and Bostic (2013) claim that "the five minute time limit prevents instructors from producing lengthy recordings that could prove unwieldy for student use" (p. 262). Other free screencasting applications exist; Jing, for example, which also has no editing features, and saves its files in a

.SWF format (which students found hard to access in prior classes that were not surveyed).

TinyTake saves screencasts as .MP4 files which virtually all media players support.

2.2.2 General Feedback Strategies

For this study feedback was structured as follows. Students submitted their essays online via Canvas in either a .doc, .docx, or .pdf file. I would then be able to view the files in Speedgrader. For this study, the only annotation I provided on the essay itself were highlighted sections of text. Speedgrader allows the instructor to highlight in different colors. I created and followed a general color scheme for marking different types of comments; this color scheme was explained explicitly to students during class. Green highlighted something that the student did well. Blue highlighted a section that students needed to expand upon. Pink indicated an organization issue. Orange was for proofreading, grammar, and mechanics issues. However, at times when there were similar issues directly next to each other in a single paragraph the color code would be broken in order to differentiate one specific issue from another. After annotating the essay in speedgrader, I would use TinyTake to record a screencast providing feedback to the student.

2.3.3 Studies that influenced feedback strategies

Richard Straub's study on students' reaction to feedback, which identified strategies that can help students receive feedback more willingly, influenced my decisions about what to comment on. One of the main complaints from students in Straub's (1997) study is that comments sounded too *harsh* and *critical* (p. 195), and that instructors had a way of trying to take over a student's writing. Straub breaks his feedback strategies down into seven components for effective feedback:

(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. (Straub as cited in Vincelette & Bostic, 2013, p. 260)

Nancy Sommers' (2006) Harvard writing study, which found that students desired more specific comments, also influenced my commenting decisions. She also found that vague comments are difficult for students to decipher, and marginalia without explanation can often look like a series of checks and sentence fragments that carry little meaning to the students.

2.2.4 Feedback Provided for this Study

Screen-casted feedback given during this study begins by greeting the student by their first name and telling them that I'd like to go over their essay with them in order to make the feedback sound more conversational and to let the student know that this feedback is specifically for them. What I commented on followed a rubric that separated concerns into global concerns and local concerns (See Appendix B); this rubric was available to students before they wrote their paper. The five minute time limit imposed by TinyTake limited the number of comments I could make; therefore, I would choose four or five concerns I wanted to address. Of those four or five concerns I would try to either make one or two comments positive, or provide positive examples of each concern. For example, if the student had one paragraph that was structured well and one poorly I would comment on the poor paragraph and refer them to their good paragraph. I

structured my feedback in this way in an attempt to provide students with a more positive feedback experience, and also to provide a template for how they could revise their troubled sections. At the end of each screencast I gave a short signoff telling students that if they had any questions about their feedback or their essay to please let me know. All screencasts for this study were performed on final drafts of student essays, but revisions were allowed on one of the two essays.

Grades were not uploaded into the Canvas Gradebook at the time that feedback was delivered to students. Instead, grades were included in the screencast themselves to promote student likelihood of viewing the screencast. Studies have shown that students are more motivated by their grades than by learning outcomes, and students who are dissatisfied with a grade they receive may not pay any attention to the feedback provided (Sopina & McNeil, 2015). I uploaded grades to Canvas's Gradebook two weeks after feedback was distributed.

2.3 Survey Methods

Overall, the goal of this survey is to gauge student perceptions of screencasted feedback. This section will cover the goals of the survey, who the survey was distributed to, and the mechanics of the survey. It will describe how the survey looks block by block, which is how the participants saw the survey as they completed it, and then group the survey questions by the research questions that they pertain to and discuss the rationale behind these questions.

The survey was created using Virginia Tech's Qualtrics platform, and links to the survey were distributed to students via a recruitment email (see appendix C). I opted for an anonymous online survey as the primary research gathering device because I hoped that an anonymous survey would elicit the most truthful responses from students as they could answer in private

without fear of reprisal, and to gather as many responses as possible. The survey was designed with two Likert scale sections, and a short answer section where students could elaborate on and provide reasons for their Likert scale answers.

2.3.1 School and Participants

This study was conducted at Virginia Polytechnic Institute and State University (Virginia Tech). The survey was distributed to 39 students, 27 opted to complete the survey fully (31 students completed the first block, 30 completed the second block, 27 students answered all of the demographics questions). All students were enrolled in one of my two sections of English 1105, a first-year composition course that did not require a research component⁵. Because this course is a required course, the participants represented a variety of majors and a variety of writing levels. Of the 31 participants 15 were male, 13 were female, 1 student identified as non-binary, and 2 did not answer. All participants were between 18 and 23 years old.

2.3.2 The Survey

For this survey the data was collected from students using Virginia Tech's Qualtrics platform. The data was also stored on the same platform. All students were invited to participate in the survey via a recruitment email, which made explicitly clear that participation was optional and results were anonymized. The survey included 18 questions, which were numbered by Qualtrics in the order they were created; because of this, the number of the question this study reports does not denote the order that participants saw the questions.

⁵ Originally, this study was intended to survey the students of multiple first-year composition instructors. However, due to time constraints, lack of time to train other instructors, and the work loads of other instructors I chose to complete the study on my classes alone.

2.3.2.1 Block 1 Questions: Student Familiarity with Technology

Block 1 included two Likert scale questions. The first, Q19_1-4, sought to determine how comfortable students were using computers, basic internet functions, and Canvas (see Figure 2 below).

How comfortable are you with				
	Not comfortable	Somewhat comfortable	Comfortable	Very comfortable
Basic computer skills?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic internet skills?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic functions of Canvas?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Viewing feedback on Canvas?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 2. Q19_1-4 Questions gauging participant comfort with technology used in the classroom.

The second question, Q18_1-5, sought to determine how often students used technology, defined as computers, cell phones, or tablets, to complete school work, watch videos both inside and outside of the classroom, or use social media (See Figure 3 below).

How frequently do you use computers/cellphones/tablets to:						
	Never	Less than once a week	Once or Twice a week	Three or four times a week	Five or six days a week	Everyday
Complete or turn in classwork?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch videos assigned by the teacher (either in the classroom or outside of the classroom)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch educational videos not assigned by the teacher to enhance your understanding or clarify lessons you learned in the classroom?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch internet videos for your own entertainment and enjoyment?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
View social media sites (Instagram, Facebook, Snapchat, Twitter, WeChat, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 3: Q18_1-5 Questions gauging the frequency participants utilize technologies.

2.3.2.2 Block 2 Questions: Student Perceptions of Screencasted Feedback Compared to Written Comments.

The second block consisted of two Likert scale questions, answered on a seven point scale ranging from strongly disagree to strongly agree. The first question, Q1_1-7, sought to determine how students felt screencasting compared to written comments in the areas of 1) understanding, 2) engagement 3) preference for screencasted feedback over written comments,

and 4) likelihood of using feedback to revise or improve writing in future assignments (see Figure 4 below).

Please rate each comment on how strongly you would agree or disagree.

	strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Sceencasted feedback was more engaging than traditional written comments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to watch my sceencasted feedback than to read written comments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was better able to understand the feedback I received from sceencasted feedback compared to written feedback.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was better able to understand how to revise my paper after receiving sceencasted feedback compared to written feedback.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sceencasted feedback improved my writing more than written comments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would prefer to receive future feedback in sceencasted form rather than written comments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend that other teachers utilize screencasting to offer feedback to their students.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 4. Q1_1-7 Questions gauging student perceptions of screencasted feedback concerning

Screencasted feedback helped me better understand how to address editing and proofreading concerns in my essay.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Screencasted feedback helped me better understand how to revise my essay to make it more rhetorically effective.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I received more feedback with screencasting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I retained feedback better with screencasting.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Screencasted feedback better motivated me to apply feedback to future papers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Screencasting made me feel a better connection with my instructor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 5. Q2_1-9 Questions gauging Student perceptions of helpfulness of screencasted feedback, motivation, and rapport.

2.3.2.3 Block 3 and 4 Questions

The third block was open ended questions able to be answered in short answer or essay formats asking for extrapolation on 1) what their overall perceptions of screencasting were, 2) effectiveness of screencasted feedback over written comments, 3) student preference of screencasted feedback over written comments, 4) what students liked most about screencasted feedback, and 5) what students liked least about screencasted feedback (see Figure 6 below).

What is your gender?

- Male
- Female
- Non-binary

What is your age?

- <18
- 18-19
- 20-21
- 22-23
- 24+

What year of college are you in?

- Freshman
- Sophomore
- Junior
- Senior
- Graduate

Are you an ESL or ELL student?

- Yes
- No

If you are an ESL or ELL student, what is your native language?

What is your race/ethnicity? Please select all that apply.

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Middle Eastern
- Hispanic or Latino
- Other

Figure 6. Demographic questions for participants.

2.4 Rationalization of Questions used in the Survey

This section, 2.4, describes why questions were included. It looks at previous scholarship that informs the questions of this survey, and discusses how the questions of this survey relate to those ideas and studies.

2.4.1 Technology and Demographics

The first block, Q19 and Q18 dealing with comfort and frequency using technology, was put in place to test the idea posited by Vincelette (2013) that current students in first-year composition classes, having grown up with the ubiquity of the internet, social media, and various forms of visual digital media, are “digital natives” (p. 108) and therefore will respond better to a feedback medium that mimics their everyday life. Orlando (2016) found that some of the students in his study felt that the audio-visual medium was unnatural to them, and that this comfort affected their perceptions of screencasted feedback. Block one was also put in place to ensure that students were already comfortable using the technology the study is based on. If a

student is uncomfortable with computers in general, it may affect their reactions to screencasted feedback.

The fourth block, asking for demographic information, was designed to look for trends across genders, year of college, ages, and students whose first language is not English. The interest in the reactions from ELL students is based on Jones, Georghiades, & Gunson (2012) finding that ELL students perceived screencasted feedback to be more helpful due to the opportunity to rewatch screencasted feedback.

The rest of the survey questions will be grouped based on the research questions that they pertain to.

2.4.2 RQ1: Do students perceive screencasted feedback as being easier to understand than written comments?

Previous studies found that students had trouble reading instructors handwritten comments, and that much of the feedback left on students' work is too vague for students to use (Crook *et al.*, 2012; West & Turner, 2016; Sommers, 2006; Hope, 2011). Question Q1_3, "I was better able to understand the feedback I received from screencasted feedback compared to written feedback," is included to determine if students find screencasted feedback as being more easily understood than written comments.

2.4.3 RQ2: Do students perceive that screencasted feedback is more engaging than written comments?

Crook *et al.* (2012) theorize that technology may help to engage students with their feedback. Other studies show that student understanding, and perceptions of helpfulness engage students with their feedback (Ice *et al.*, 2010; West & Turner, 2016; Silva, 2012). This research

question was included to understand the roles of technology, and understanding and helpfulness in student engagement. The following survey questions pertain to this research question:

- Q1_1: Sceencasted feedback was more engaging than traditional written comments.
- Q2_7: I feel that I retained feedback better with screencasting.

These survey questions look to the opened ended questions, discussed below, to glean student reasons for their reported level of engagement. Q2_7, which asks about feedback retention, is based on the idea that better retainment of information means that students were more engaged.

2.4.4 RQ3: Do students perceive screencasted feedback as being more helpful than written comments?

Helpfulness, for this study, is thought of as students knowing how to revising the issues that arose in their writing, and being able to apply feedback to future writing. Vincelette and Bostic (2013) found that screencasted feedback lent itself better to addressing global concerns compared to sentence level errors. This section intends to address whether students perceive that screencasted feedback is better suited to global concerns than sentence level errors. A similar section can be found in Vincelette and Bostic's (2013) survey; the phrasing for this section of questions is based directly on the rubric handed out to students before their final drafts were due and the verbiage used in class to talk about different concerns. For example, Vincelette and Bostic's (2013) survey reads, "I gained a better understanding of how to organize my writing due to the feedback received," (p. 274) and Q2_1 reads, "screencasted feedback helped me better understand how to address organizational concerns in my essay." Survey questions devised under this research question include:

- Q1_4: I was better able to understand how to revise my paper after receiving screencasted feedback compared to written feedback.

- Q1_5: Screencasted feedback improved my writing more than written comments
- Q2_1: Screencasted feedback helped me better understand how to address organizational concerns in my essay
- Q2_2: Screencasted feedback helped me better understand how to address concerns about focus and purpose in my essay.
- Q2_3: Screencasted feedback helped me better understand how to address concerns about tone and style in my essay.
- Q2_4: Screencasted feedback helped me better understand how to address editing and proofreading concerns in my essay
- Q2_5: Screencasted feedback helped me better understand how to revise my essay to make it more rhetorically effective.
- Q2_8: Screencasted feedback better motivated me to apply feedback to future papers

All questions in this section are intended to determine how helpful students perceive screencasted feedback to be, both in a general sense, and regarding more specific concerns and errors.

2.4.5 RQ4: Do students perceive that screencasted feedback builds a stronger rapport with instructor?

Students perceiving feedback as *impersonal* and *uncaring* is one of the main complaints about feedback found in the literature (Price *et al.*, 2012). Borup, West, and Thomas (2015) found that students desire to be seen as individuals. In Ice *et al.*'s (2010) study, they found that in asynchronous online classes the use of audio feedback led student to feel more present in the class, and a better connection with their instructor. Vincelette and Bostic (2013) found that with screencasting in face-to-face classes students felt that a rapport developed between themselves

and instructors. This research question is looking to explicitly confirm that students feel screencasting builds a stronger rapport with their instructor because Vincelette and Bostic's (2013) survey does not directly address this phenomenon.

- Q2_9: Compared to written comments: Screencasting made me feel a better connection with my instructor.

2.4.6 RQ5: *Do students prefer screencasted feedback over written comments?*

The fifth research questions, dealing with student preference of screencasted feedback, was added because student preference for a certain type of feedback, and student perceptions of efficacy of that same feedback modality are not commensurate. Mulliner and Tucker (2017) found that 94% of students believed face-to-face conference feedback was very effective, but only 46% of students preferred to receive feedback via conferencing. This research question seeks to discern whether students' perceptions of the efficacy and their preference for screencasted feedback are similar. Vincelette and Bostic's (2013) survey also looks at preference; however, their preference questions are asked towards more specific areas of feedback such as structure, organization, etc., while this survey looks to gain a more general look at preference for the modality as a whole. Questions included in this section are:

- Q1_6: I would prefer to receive future feedback in screencasted form rather than written comments.
- Q1_7: I would recommend that other teachers utilize screencasting to offer feedback to their students.
- Q10: Would you prefer to receive screencasted feedback in the future? Why? or why not?

Vincelette and Bostic (2013) include a question similar the Q1_7, but specified teachers of other writing courses. This question was intentionally left more open because I believe screencasting

could be used outside of the writing classroom as well. Q10 is a short answer question. It was included to gain a better understanding of the reasoning behind students' preferences for either screencasting or written feedback.

2.4.7 Block 3 Open-Ended Questions

The third block of the survey consists of 4 open-ended short-answer questions that were included to give students a chance to elaborate on their Likert scale answers. These questions include:

- Q3: What are your overall impressions of screencasted feedback?
- Q4: Do you think screencasted feedback was more effective than written comments?
Why? or why not?
- Q5: What did you like most about receiving screencasted feedback?
- Q6: what did you least like about receiving screencasted feedback?
- Q10: Would you prefer to receive screencasted feedback in the future? Why? or why not?

Q3 was included to encourage students to elaborate on their overall experiences with screencasted feedback, and to see what was their biggest take away. Q4 was included specifically to encourage students to comment on the questions found under helpfulness to allow students to give reasoning for why they found screencasting helpful or not. Q5 and Q6 were included to find what students perceived to be the best and worst parts of screencasting. Even for students who enjoyed screencasting overall, there may be something that could be improved. For students who did not like screencasting, there is a chance there is still something they liked about screencasting. Q10 is address above in section 2.4.5.

2.5 Data Analysis Procedures

All statistical data based on the Likert scale blocks of the survey was obtained through Qualtrics' reports function. I coded all open-ended questions in a two-step process on Google Sheets. The first step looked purely for themes within the individual open-ended questions. For each theme identified a column would be added to the spreadsheet and a specific code assigned for each student answer to an open ended question. For example: for question Q10, "Would you prefer to receive screencasted feedback in the future? Why? or why not?" student answers that indicated they would prefer screencasting were coded as "S", student answers that indicated they preferred written comments were assigned the code "W", and student answers that did not prefer either, or did not specifically state a preference, were assigned the code "N". The second step sought to relate those themes to the Likert scale block questions. Ultimately, the 5 open-ended questions were used to add descriptive power to the statistics gathered, and sought to discern student motivations for answers recorded in the Likert scale blocks. Concerning Q10, an open-ended question that asked students whether they prefer to receive screencasted feedback in the future, the coded results were compared against student answers in Q1_6, a Likert scale question that also asked about preference.

2.6 Ethical Considerations

Permission was obtained through the Institutional Review Board at Virginia Tech prior to conducting this study. This study conforms to the policies and procedures outlined by the IRB for non-clinical projects on human subjects.

I am also aware of the ethical and scholarly concerns surrounding conducting research on my own students. These concerns include, but are not limited to: 1) perceived coercion, 2) the power dynamic between the instructor and students where a student may participate or provide

answers in order to please their instructor, 3) students fearing not participating or providing negative answers will affect their grade, and 4) anonymity.

In order to mitigate these concerns, the study was designed to be completely voluntary, and the survey results were anonymized and stored on Virginia Tech's secure Qualtrics platform. Before the recruitment email was distributed, I explained to my students that the nature of the study was to gather information for instructors to provide better and more helpful feedback to students in the future, and therefore honest answers would best help instructors in the future provide better feedback to students. I assured students that participation was voluntary, anonymous, and would have no impact on their grades or attention paid in the future.

Originally, I planned to conduct research over multiple sections of first-year writing students by polling students of instructors who had volunteered to provide their students with screencasted feedback. However, due to time constraints and workloads of myself and the volunteer instructors the original plan was deemed infeasible, and the current study was drafted and put in place.

3 Results

Overall, the majority of students perceived screencasted feedback to be easier to understand, be more engaging, be more helpful, build a stronger rapport, and would prefer to receive screencasted feedback over written comments in the future. This section will look at the results of each research question individually. It includes a section reporting student comfort with technology and how frequently they engage with visual media in technology, ELL student comfort with screencasting, and the perceived drawbacks of screencasted feedback.

3.1 Do students perceive screencasted feedback as being easier to understand than written comments?

Concerning the first research question, this study shows that students generally perceive screencasted feedback to be more effective than written comments. Within the survey, the following questions and prompts were pertinent to the subject research questions:

- Q1_3: I was better able to understand the feedback I received from screencasted feedback compared to written feedback.

Regarding Q1_3, which asks students to compare their comprehension of written versus screencasted feedback, 80% of students surveyed agreed that screencasting was easier to understand, while 6.67% disagreed (see Table 1 below). Of the 24 students who agreed, 10 responded that they strongly agreed, while neither student who disagreed strongly disagreed.

Table 1

Q1_3: Student perceptions of better understanding with screencasted feedback

Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
-------------------	----------	-------------------	----------------------------	----------------	-------	----------------

0 (0.00%) 1 (3.33%) 1 (3.33%) 4 (14.33%) 7 (23.33%) 7 (23.33%) 10 (33.33%)

Many of the students who agreed attributed their overall understanding to understanding the specificity of the comments and how they affect the larger picture of their essay. Comments were expressed such as “screencasting was really personal and allowed me to understand not only what I did wrong, but also how it affected my paper as a whole” (F4), and “short comments can be very vague and unclear, but when the professor actually talks about it i (sic) understand what he means and what exactly he is talking about” (F12). Similarly, a student stated that when an instructor tells them to be more specific in a written comment they are “constantly trying to figure out where [they] should ‘be more specific’ whereas with screencasted feedback the teacher told [them] that [they] should be more specific in the spot highlighted on the screen” (M8). Another student attributed their understanding to the “ability to hear emotion and context in the feedback” (M4).

Not all students’ answers on the Q1_3 aligned with the comments they left. Student F1, who answered they “somewhat agree” on question Q1_3, said, “screencasted feedback is not more effective than written comments. Since the written paragraphs give me deeper understanding or thinking about my eassy [sic] and teacher's comments” (F1). Student F9, who on Q1_3 answered that she neither agreed nor disagreed, wrote in the comments that screencasting “helps me better understand what I need to improve on and what I did well.” Neither student who disagreed commented on the how screencasting affected their ability to understand the feedback they received.

3.2 Do students perceive that screencasted feedback is more engaging than written comments?

Concerning the second research question, this study shows that students generally perceive screencasted feedback to be more engaging than written comments. Within the overall survey, the following questions and prompts were pertinent to the subject research questions:

- Q1_1: Screencasted feedback was more engaging than traditional written feedback.
- Q1_2: I am more likely to watch my screencasted feedback than to read written comments.

In Q1_1, which asks students to compare their engagement with screencasted feedback compared to written comments, 80% of students agree that screencasting is more engaging than written comments, 16.67% remained neutral, and 3.33% disagreed (see Table 2 below). Of the 24 students that agreed, 11 strongly agreed. The one student that disagreed indicated they strongly disagreed.

Regarding Q1_2, which asks students whether they think they would be more likely to view screencasted feedback than read written comments, 60% of students agreed, 10% disagreed, and the remaining 16.67% neither agreed nor disagreed (see Table 2 below). Of the 3 students that disagreed, 2 strongly disagreed.

Table 2

Student Perceptions of Engagement with Screencasted Feedback

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
Q1_1: Screencasted feedback was more engaging than traditional written comments.	1 (3.33%)	0 (0.00%)	0 (0.00%)	5 (16.67%)	2 (6.67%)	11 (36.67%)	11 (36.67%)
Q1_2: I am more likely to watch my screencasted feedback than to read written comments.	2 (6.67%)	1 (3.33%)	0 (0.00%)	9 (30.00%)	4 (13.33%)	7 (23.33%)	7 (23.33%)

Students who agreed that screencasting was more engaging and that they were more likely to watch their screencasted feedback left comments such as: “I actually listened to whole video rather than not reading all the comments on my paper if they were written” (F7). Another student commented that:

I pay a lot more attention to the comments on the screencast version. If I get a paper handed back to me, I tend to just look at the letter grade at the top, but being forced to listen to video and hear all of the criticisms and then hear the grade is a very good and effective system. (M13)

A student who disagreed they were more likely to watch their screencasted feedback said, “I honestly don't look at much feedback most of the time for my assignments because once I get a grade for something I forget about it,” and stated that he “just skipped to the end to see [his] grade” (M12).

Many of the students who agreed that screencasting is more engaging indicated that they were more engaged with screencasted feedback because of the audio and visual components.

Comments were left such as “ the auditory stimulus of my professors voice... was more engaging and descriptive than written comments” (M1). Similarly a student commented that they liked “that my teacher was able to communicate with me about my writing through an audio he sent me using screencasted feedback; it made me feel like we were having an actual conversation together” (F13). Another student commented that screencasting was “more engaging than just visibly seeing written comments, and it allows the instructor to give you reasoning for their ideas on your assignment than if it was just a written comment” (F10). The student that disagreed about screencasting being more engaging commented that they did not like that screencasting “requires more focus to get essentially the same information” (N1).

3.3 Do students perceive screencasted feedback as being more helpful than written comments?

Concerning the third research question, this study found that students generally perceived screencasted feedback to be more helpful than written comments. For the purpose of this study, helpfulness is viewed as that which facilitates a student’s ability to revise, edit, improve their current assignment, or apply the feedback to future assignments in class and beyond. Within the survey the following questions or prompts pertained to this research question:

- Q1_4: I was better able to understand how to revise my paper after receiving screencasted feedback compared to written feedback.
- Q1_5: Screencasted feedback improved my writing more than written comments.
- Q2_1: Screencasted feedback helped me better understand how to address organizational concerns in my essay.
- Q2_2: Screencasted feedback helped me better understand how to address concerns about focus and purpose in my essay.

- Q2_3: Screencasted feedback helped me better understand how to address concerns about tone and style in my essay.
- Q2_4: Screencasted feedback helped me better understand how to address editing and proofreading concerns in my essay.
- Q2_5: Screencasted feedback helped me better understand how to revise my essay to make it more rhetorically effective.
- Q2_8: Screencasted feedback better motivated me to apply feedback to future papers.

Regarding Q1_4, 83.33% of students perceived that they were better able to revise their current assignment after receiving screencasted feedback compared to when they received written comments; one student somewhat disagreed. Additionally, in Q1_5, 70% of students believed that screencasted feedback helped improve their writing more than written comments; 6.67% disagreed (see Table 3 below).

Table 3

Student perceptions of how screencasted feedback affected their ability to revise and improved their writing

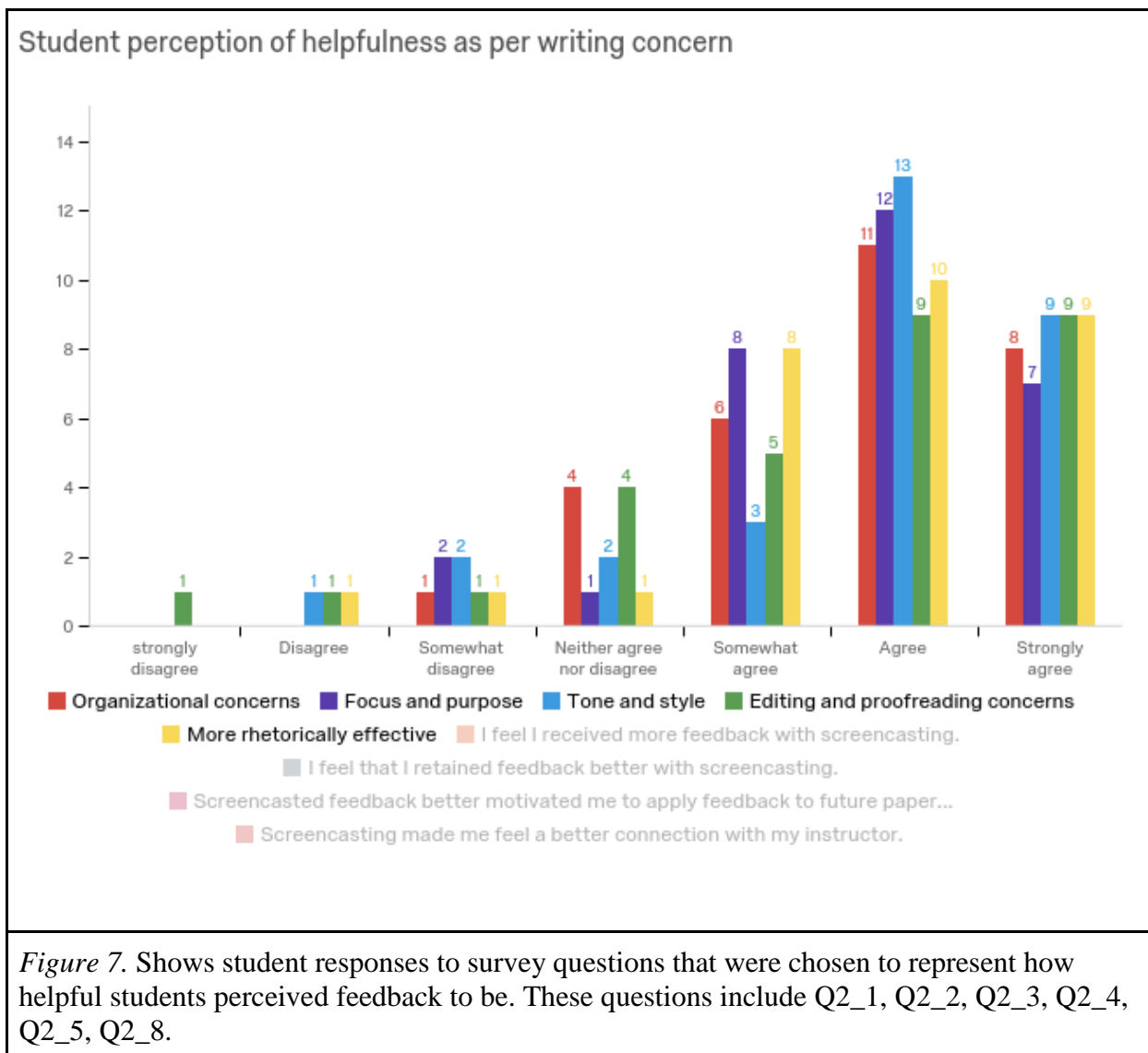
	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
Q1_4:I was better able to understand how to revise my paper after receiving screencasted feedback compared to written feedback.	0 (0.00%)	0 (0.00%)	1 (3.33%)	4 (13.33%)	8 (26.67%)	7 (23.33%)	10 (33.33%)
Q1_5 Screencasted feedback improved my writing more than written comments.	0 (0.00%)	1 (3.33%)	1 (3.33%)	7 (23.33%)	7 (23.33%)	8 (26.67%)	6 (20.00%)

When asked about specific revision and editing concerns students generally answered they believed screencasted feedback helped them better understand how to address these concerns than written feedback. Trends seem to indicate that students believe screencasted feedback especially helpful in regards to global concerns. In Q2_2, which asked students if

screencasting better helped them understand how to address concerns about focus and purpose in their essay, 90% believed that it did; 6.67% indicated they “somewhat disagreed.” Likewise, in Q2_5, which asked students if they felt screencasting helped them improve the rhetorical efficacy of their essays, 90% believed that screencasting was more effective than written comments; 6.67% disagreed (see Figure 7 below).

Sentence level concerns such as tone and style, addressed in Q2_3, and proofreading and editing, addressed in Q2_4, had marginally lower overall positive responses with 83.33% and 76.67% respectively, but had more students strongly agree that they helped compared to the global concerns; both had 9 students record they strongly agreed compared to 8 for Q2_1, and 7 for Q2_2. Questions regarding sentence level concerns , Q2_3 and Q2_4, also had the most students disagree that screencasting helped them better understand how to fix these issues, but even with the highest percentage of disagreeance in the study each question had only 3 students disagree (see Figure 7 below).

Regarding Q2_8, 80% of students indicated that screencasting did better motivate them to apply feedback to future papers compared to written comments. Of those 23 students 9 strongly agreed that it better motivated them. 6.67% of students indicated that screencasting did not better motivated them to apply feedback to future assignments (see Figure 7 below).



Most students that found screencasting helpful commented on 2 different aspects: 1) the specificity and depth of the comments, and 2) the student's perceived ability to revise their current essay or improve future essays. In regards to specificity and depth of screencasted feedback students left comments such as "[with] screencasted feedback I got more in-depth and precise feedback," and "I believe screencasted feedback allows the professor to go more in depth with the feedback on papers so the students better understand how to fix their mistakes" (M15, M5). Another student said that "The in-depth analysis of what was wrong and what was good about my paper" was what she liked most about screencasted feedback (F2).

In regards to the student's perceived ability to revise their current essay or improve future essays, students who agreed left comments such as, "With written comments, often the teacher will just write what is wrong with the paper and not how to fix it or why it is wrong. Screencasting gives us the means to fix our mistakes" (F4). Another student wrote that screencasted feedback allowed the instructor "to explain, in words, exactly what [they] liked about [the student's] paper and the things [they] was missing or needed to work on and why" (F13). A third student commented they felt "[screencasted] feedback helped me better understand why I was receiving the grade which I was receiving, and helped much more than written comments when I wanted to know what I had to correct within my essay" (F11). Similarly, another student commented they felt that screencasted feedback was "more useful when applying revisions" (F8).

Again, not all Likert scale questions and comments lined up. Specifically regarding Q2_4, student F2 indicated that she strongly disagreed that screencasting was more effective than written comments at helping her address editing and proofreading concerns in her essay, but in the comments said that she would prefer screencasted feedback in the future saying, "I did find it more helpful in editing my paper." No other student that disagreed in the likert scale questions commented on the helpfulness of screencasted feedback.

3.4 Do students perceive that screencasted feedback builds a stronger rapport with instructor?

Concerning the fourth research question, the research shows that students generally feel a stronger rapport with their instructor compared to receiving written comments. Within the survey the following prompt was pertinent to this research question:

- Q2_9: Screencasting made me feel a better connection with my instructor.

In regards to Q2_9, 87% of students agreed that screencasting caused them feel a better connection with the instructor compared to written comments; 10% disagreed, 3.33% remained neutral (see Table 4 below).

Table 4

Student perceptions of how screencasted feedback affected their rapport with the instructor

Compared to traditional written comments:	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
Q2_9: Screencasting made me feel a better connection with my instructor.	0 (0.00%)	1 (3.33%)	2 (6.67%)	1 (3.33%)	4 (13.33%)	8 (26.67%)	14 (46.67%)

How screencasting improved the rapport between student and instructor was the most popular aspect of screencasting commented on in the open ended question section, with 13 students choosing to comment. Students who agreed that screencasting improved the rapport between instructor and student left comments such as, “It really showed that [the instructor] cares a lot about how [his] students do and wants them to improve” (F3). Another student wrote, “I like having the personal connection and knowing my professor spent the time to look over my paper and give me tips to make it better” (F8). A third student commented that they “liked the personal aspect of it. Each video was made specifically for each student and the feedback was based on our essay and our personality” (F4). Another student attributed their belief that screencasting is more effective than written comments saying, “I think [screencasting] is more effective than written comments because it creates a better connection between the student and professor” (M5).

Interestingly, student M15, who somewhat agreed that screencasting improved their rapport with the instructor, commented that they felt screencasting “prevent[s] me from speaking

to my professor face-to-face.” Student F10, who agreed to Q2_9, also felt they did “not have the ability to respond to the comments made by your instructor on the assignment.”

3.5 Do students prefer screencasted feedback over written comments?

Concerning the fifth research question, the research shows that students generally prefer screencasted feedback over written comments, and would recommend that other teachers screencast their feedback. Within the survey, the following prompts were pertinent to this research question:

- Q1_6: I would prefer to receive future feedback in screencasted form rather than written comments.
- Q1_7: I would recommend that other teachers utilize screencasting to offer feedback to their students.
- Q10: Would you prefer to receive screencasted feedback in the future? Why? or why not?

Concerning Q1_6, 70% of students agree that they would prefer to receive their feedback as screencasted feedback in the future; 16.67% disagree with this statement. Of the 21 students that indicated they would prefer to receive screencasted feedback in the future, 40% strongly agreed. Similarly, in Q1_7, 70% of students would recommend that other instructors use screencasting to give feedback while 13.33% would not. Eleven of the 21 students who responded they would recommend other instructors give screencasted feedback strongly agreed (see Table 5 below).

When asked if they prefer screencasting over written comments in Q10 of the survey, 22 students indicated they preferred screencasted feedback; one more than in Q1_6, 2 students remained neutral, 4 students indicated they would not prefer screencasted feedback⁶, and three

⁶ The same as in Q1_6

did not answer (see table 5 below). Student F1 agreed on Q1_6, but then commented she did not prefer screencasted feedback because “Written comments are better for a clear statement of feedback.” Students F2, F5, and F9 all chose neither agree nor disagree on Q1_6, but indicated they did prefer to receive screencasted feedback in Q10. Student M9 agreed in Q1_6, but changed his response to neutral in Q10.

Table 5

Student preference for screencasted feedback compared to written comments.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither agree nor disagree	Somewhat Agree	Agree	Strongly Agree
Q1_6: I would prefer to receive future feedback in screencasted form rather than written comments.	1 (3.33%)	2 (6.67%)	2 (6.67%)	4 (13.33%)	2 (6.67%)	7 (23.33%)	12 (40.00%)
Q1_7: I would recommend that other teachers utilize screencasting to offer feedback to their students.	1 (3.33%)	3 (10.0%)	0 (0.00%)	5 (16.67%)	4 (13.33%)	6 (20.00%)	11 (36.67%)
	No		Neutral		Yes		
Q10: Would you prefer to receive screencasted feedback in the future? Why? or why not?	4 (14%)		2 (7%)		22 (79%)		

Of the students who indicated they did prefer screencasted feedback in Q1_6 many indicated it was because they found screencasting more helpful. Students left comments such as: “[screencasted feedback] was a lot more useful in improving my writing skills than through written comments” (F12). Another student commented that she “would prefer [screencasting] because I find it more useful when applying revisions” (F8). One student commented that they would prefer screencasting because “everything is going to and written comments will be in the past” (F5). The students that disagreed commented on the length of the screencasts, and the relative difficulty in referencing specific points. Both issues are discussed below in section 3.7.

3.6 Comfort and Frequency of Technology Use

Block 1 questions in the survey are concerned with how comfortable students are with technology used in the classroom, and how frequently students use this technology both inside and outside of the classroom. This study shows that students are comfortable using the technology used in the classroom, and for providing feedback. Also, it shows that students generally watch some sort of internet video, or social media on a frequent basis. In regards to comfort using technology, Q19_1-4 asked students how comfortable they were with:

- Q19_1: Basic computer skills.
- Q19_2: Basic internet skills.
- Q19_3: .Basic functions of Canvas.
- Q19_4: Viewing feedback on Canvas.

100% of students indicated that they were at least somewhat comfortable with basic computer skills, Q19_1, basic internet skills, Q19_2, and the basic functions of Canvas, Q19_3. One student indicated that they were not comfortable viewing feedback on Canvas (see table 6 below).

Table 6

Student comfort with technology used in the classroom

How comfortable are you with:	Not Comfortable	Somewhat Comfortable	Comfortable	Very comfortable
Basic computer skills	0 (0%)	3 (9.68%)	11 (35.48%)	17 (54.84%)
Basic internet skills	0 (0%)	3 (9.68%)	10 (32.26%)	18 (58.06%)
Basic functions of Canvas	0 (0%)	0 (0%)	14 (45.16%)	17 (54.84%)
Viewing feedback on Canvas	1 (3.23%)	1 (3.23%)	15 (48.39%)	14 (45.16%)

Concerning the frequency in which students engaged with visual media, whether it be inside or outside of the classroom, Q18_1-5 asked students how frequently they use computers, cell phones, or tablets to:

- Q18_1: Complete or turn in classwork?
- Q18_2: Watch videos assigned by the teacher (either in the classroom or outside of the classroom?)
- Q18_3: Watch educational videos not assigned by the teacher to enhance your understanding or clarify lessons you learned in the classroom?
- Q18_4: Watch internet videos for your own entertainment and enjoyment?
- Q18_5: View social media sites (Instagram, Facebook, Snapchat, Twitter, WeChat, etc.

In Q18_1, regarding frequency completing or turning in classwork with technology, 95% of students said they did so at least once a week, with 56% saying they did so every day.

Concerning 18_2, 71% of students said they watched a video assigned by a teacher at least once a week, while 29% said they did so less than once a week or never. Regarding Q18_3, 58% of students said they watched education videos outside of class to help clarify in-class materials at least once a week, while 25% said they never did. 87% of students indicated that they watched internet videos at least once a week, as prompted by Q18_4. 94% of students indicated that they engage with social media at least once a week with 77% saying they do so everyday (see Table 7 below).

Table 7

Frequency Students Engage with Technology used in this Study

How frequently do you use computers/ cell phones/ tablets to:	Never	Less than once a week	Once or twice a week	Three or four times a week	Five or six times a week	Everyday
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Complete or turn in classwork?	1 (3.23%)	0 (0.00%)	1 (3.23%)	5 (16.13%)	6 (19.35%)	18 (56.06%)
Watch videos assigned by the teacher (either in the classroom or outside of the classroom?)	2 (6.45%)	7 (22.58%)	6 (19.35%)	4 (12.90%)	3 (9.68%)	9 (29.03%)
Watch educational videos not assigned by the teacher to enhance your understanding or clarify lessons you learned in the classroom?	8 (25.81%)	5 (16.31%)	14 (45.16%)	0 (0.00%)	1 (3.23%)	3 (9.68%)
Watch internet videos for your own entertainment and enjoyment?	1 (3.23%)	3 (9.68%)	5 (16.13%)	5 (16.13%)	2 (6.45%)	15 (48.39%)
View social media sites (Instagram, Facebook, Snapchat, Twitter, WeChat, etc)?	0 (0.00%)	2 (6.45%)	2 (6.45%)	2 (6.45%)	1 (3.23%)	24 (77.42%)

Students in this study report that they are comfortable with the technology used in the classroom. Only one student indicated that they were not comfortable viewing feedback on Canvas. Generally, students engage with technology either for school or for their own entertainment multiple times a week, and for the majority of students they do so everyday.

3.7 ELL Student Trends

Concerning the question seeking to identify trends in ELL students found in the Block 4 demographic sections, I decided there was insufficient evidence was obtained to speak towards any trends or generalizations across ELL students as only two students identified themselves as ELL. I also suspect that students who would generally be considered ELL took the survey but did not identify as ELL and therefore believe any trends found through the two ELL students would lack integrity.

3.6 Notable Drawbacks of Screencasting

Students noted that it was more difficult to refer back to specific areas of screencasted feedback compared to written comments. Twenty-two percent of students who responded to the question “what did you least like about receiving screencasted feedback?” cited that it is easier to refer back to written comments quickly. One student commented that “It is hard to go back through your essay to make the corrections because you don't remember a part of the video you have to go back through and watch the whole thing again” (F4). A second student echoed these sentiments saying, “it was annoying to have to watch the video over and over again to find specific area where I was looking for comments the teacher had made” (F2). The relative difficulty causes this student to question whether or not screencasting is more effective than written comments saying that with screencasting:

it is easier for [the instructor] to explain what is wrong and what needs to be fixed. But at the same time with written comments it is easier to look at their comments while trying to write a paper, and with screen casting it is more difficult because you have to look for the specific area of the paper that the teacher mentioned there were issues with. (F2)

Another student also cited the difficulty of reference as being the reason that they found screencasted feedback less effective overall saying that “written comments are easier to quickly refer back to and get a general idea of how well I did” (N1). Screencasting is more time consuming and requires more focus to get essentially the same information” (N1).

Students also noted that the length of time required to view their screencasted feedback was too long, especially compared to written comments. 44% of students that answered the question “what did you least like about receiving screencasted feedback?” mentioned screencasting requiring more time than written feedback. One student commented that they

“didn't like having to listen and watch a 5 minute video, I would have rather just read it on a paper myself” (F3). Another student said that the screencasts “are often fairly lengthy videos, and could be shorter in order for the students to actually pay attention to them/follow along” (F11). Another student said that the time commitment required to view screencasts was too long and that “Screencasting is more time consuming and requires more focus to get essentially the same information” and that “the same thing could be read in a fraction of the time” (N1). Two students said they did not like having to wait to hear their grade until the end of the video, one student saying “On written papers it is easy to just find the circled letter grade very fast” (M8).

4 Discussion

The majority of students in this study perceived screencasted feedback to be more easily understood, more engaging, and more helpful than written comments. Furthermore, the majority of students in this study felt that screencasting built a better rapport with their instructor than written comments, and students would prefer to receive screencasted feedback over written feedback in the future.

4.1 Helpfulness, Understanding, and Engagement.

In regards to Research Question 1, “Do students perceive screencasted feedback as being easier to understand than written comments?,” the survey indicates that 80% of students believed they could more easily understand the screencasted feedback compared to written comments. Many of the students who commented on the understandability of the feedback said they gained a greater understanding of how to utilize their comments with screencasting. There did not appear to be any evidence that students did not understand the denotation of the feedback or that they ever had trouble reading the feedback.⁷ Instead, they expressed confusion about how to apply the feedback in their papers. This may be best exemplified by student M8 who said, “With written comments I am constantly trying to figure out where I should ‘be more specific’ whereas with screencasted feedback the teacher told me that I should be more specific in the spot highlighted on the screen.” The student understood the comment “be more specific”, but was unsure of exactly where they needed to apply the feedback they had received. Other students made similar comments calling short written comments “vague and unclear,” but said, “when the professor actually talks about it i understand what he means and what exactly he is talking about” (F12), and “With written comments, often the teacher will just write what is wrong with the

⁷No students mentioned having trouble reading handwritten comments.

paper and not how to fix it or why it is wrong. Screencasting gives us the means to fix our mistakes” (F4). These comments suggest that students not only desire to have their attention called to a specific issue, but they also desire to have an explanation as to how to fix the problem.

Looking at RQ1 from the lens of students understanding how to apply feedback, it seems that RQ1 and RQ3, “do students perceive screencasted feedback as being more helpful than written comments?,” are more similar than originally thought. This study views helpfulness as that which facilitates a student's ability to revise, edit, improve their current assignment or apply the feedback to future assignments. This study suggests that students don't only want to be able to understand the feedback to act on it, but they also want to be able understand how to apply the feedback to their own papers. Therefore, more helpful feedback is perceived as more understandable feedback.

Students attribute their level of understanding and perceived helpfulness with screencasted feedback to the precision and level of detail in the screencasted feedback. Students felt that screencasted feedback gave them more details and information about their essays, and that this level of detail helped them understand how to revise, and also why they received their grade (M14; F3; F11). The concept of providing students with the means to fix their mistakes or teaching them how to fix their mistakes, closely aligns with West and Turner's (2016) assertion that vague comments will hinder a student's ability to apply the feedback to their writing (p. 401). Students throughout the survey consistently commented on how they felt screencasting helped them learn to engage with the feedback so that they can apply the advice given in feedback to their papers. Overall, 83% of students said that screencasted feedback helped them better understand how to revise their essays compared to written feedback overall. Concerning more

specific areas of writing, 83% of students said it helped them understand how to correct organizational issues better than written feedback, 90% said it helped them correct issues with focus and purpose better than with written feedback, 83% said it helped them correct editing and proofreading errors better than written feedback, 90% said it helped them make their essays more rhetorically effective than with written feedback, and 83% said it helped them address concerns about tone and style better than with written feedback.

The helpfulness of comments may not be necessarily dependant on the modality in which the feedback is given, but rather in the nature of the comments. However, in regards to the amount of explanation one student felt they received, they expressed concern that if an instructor were to give the same level of explanation in a written comment, the comment would “be way too long” (M3). Since length was one of the main complaints about screencasted feedback, and feedback in general, the paragraph comments for each correction would, most likely, adversely affect a student’s willingness to utilize the feedback. These findings align with West and Turner’s assertion that screencasting’s ability to provide specific and detailed comments improved students engagement. It may be added that it’s not just specific and detailed comments, but specific and detailed comments in a digestible amount of time; though this study did not ascertain what students’ preferred time limit is.

Students also reported that the audio-visual components of screencasting helped their understanding of how to apply feedback, and was more engaging. Student F8 thought that it was beneficial being able to see her “essays in the eyes of the professor. Also, it was more beneficial to hear the comments throughout the essay rather than read written comments that do not go into as much detail.” Another student thought that the “auditory stimulus” of screencasting was “more engaging and descriptive than written comments” (M8). Neither student gave an

explanation as to why they felt that the audio visual components of screencasting were beneficial or more engaging, but another student attributed it to nuance. They said that they most liked being able to “hear emotion and context in the feedback instead of just words on paper” (M4).

Ice *et al.*'s (2010) study on audio feedback found that students engage with vocal cues that create a nuance in their feedback. Ice *et al.* (2010) theorizes that the students' ability to hear nuance enhances their understanding of the feedback (p. 114). In the same study they found that students retained feedback better, it motivated them to revise more, and felt that it was more clear than written feedback (Ice *et al.*, 2010). Similar results were found in this study. This suggests that the benefits of audio feedback found in Ice *et al.*'s audio feedback study carry over to auditory aspect of screencasting; which Hope's (2011) study also found.

Ice *et al.*'s (2010) study also found that students felt more involved in their “education experience” (p. 115) when provided audio feedback. Crook *et al.* (2012) theorizes that technology has the potential to engage students, while Sopina and McNeil (2015) claim that it is the helpfulness of the feedback which engages students. The results of this study suggest that student engagement is reliant on a how helpful students find the feedback. The student's perception of helpfulness may come from the modality of the feedback; i.e. engaging with vocal cues or being able to see the essay how their instructor sees it. It may also come from the content of the feedback; i.e. the explanatory nature of screencasted feedback postited by West and Turner (2016). In this way RQ2, asking if screencasting improves student engagement, is dependant on student perceptions of RQ1, being able to understand feedback, and RQ3, the helpfulness of the feedback.

Directly regarding engagement, this study found that 80% of students perceived screencasted feedback to be more engaging than written comments. Student comments on

engagement resemble the reasons cited in the literature above. One student commented on the helpfulness, retention, and the modality, saying that screencasted feedback “helped me with my other essays on how to improve and I actually listened to whole video rather than not reading all the comments on my paper if they were written” (F7). This student doesn’t make it clear exactly why she “actually listened to the whole video” but her other comments stated how clearly she was able to see her mistakes and how the screencasted feedback explained how to correct them. The phrase “actually listened... rather than not reading” (F7) could suggest that the modality itself was more engaging. Another student had a similar view to this saying they were “more apt to listen to something than read it” (F5). This same student said they preferred screencasting because “computers are what everything is going to and written comments will be in the past” (F5). This comment seems to dismiss that textual comments can be given on the computer through bubble comments or text boxes on grading platforms, but it does suggest that the technology plays a role in student engagement.

Other students said they were more likely to watch screencasted feedback than read their written comments as well. In Q1_2, which asks students if they are more likely to watch screencasted feedback than to read written comments, 76% of students said that they were more likely to watch their screencasted feedback. One student commented, “I pay a lot more attention to the comments on the screencast version. If I get a paper handed back to me, I tend to just look at the letter grade at the top” (M13).

Screencasting, however, will not magically engage all students, nor will it guarantee all students will even view their feedback. Two separate students said in their comments that they skipped to the end of the screencast to see their grades (F3, M12). One student said that they “don’t look at feedback most of the time... because once [they] get a grade for something [they]

forget about it” (M12). The other student’s reason for skipping to the end was that they “didn’t like having to listen and watch a 5 minute video” (F3).

Hope (2011) speculates that at least some of the engagement, and likelihood to view screencasted feedback is due to the novelty of a new modality. There are indications in this study that there may be a novelty factor. Students left comments about how screencasting was “neat” and also about the newness of the modality (F5, F12). From this study there is no way to gauge how much of an effect the novelty factor would have were students to continue to receive screencasted feedback over multiple semesters and years.

4.2 Rapport

In regards to RQ4, “Do students perceive that screencasted feedback builds a stronger rapport with instructor?,” 87% of students felt that they built a stronger rapport with their instructor. Rapport was also one of the most commented on aspects of the short answer section. Nine students commented on the personal connection they felt with the instructor when asked what they liked most about screencasted feedback.

Price *et al.* (2012) found that students generally perceive their feedback to be impersonal and uncaring, and feel that their instructors didn’t care enough about their work to spend time on their feedback. The results of this study suggest that screencasting feedback could help eliminate these problems. Many students commented on how much they felt their instructor cared voicing the assumption that their instructor spent more time on their feedback. Students left comments such as “I was really impressed that, the professor would take this much extra time and effort to make a video for each individual” (F4). One of the students who admitted to skipping the feedback even commented that screencasting “really showed that he cares a lot about how his

students do and wants them to improve” (F3). These results are similar to Ice *et al.*'s (2010) findings that audio feedback also improved the connection between students and instructors.

4.3 Preference

This study found that 70% of students would prefer to receive screencasted feedback in the future and would recommend that other instructors give screencasted feedback as well. Students gave reasons such as finding screencasting more helpful in revisions (F8), believing that it helps their writing skills in the “long run” (M13), and because it made the student feel as “if we were having an actual conversation” (F13). The biggest factor in students indicating that they would prefer screencasted feedback in the future was how helpful they perceived it to be. Both students F5 and F9 did not find screencasting to be more easily understood nor did they find it more engaging, but they did find it more helpful in applying revisions and edits. It was for these reasons that they said they would prefer screencasted feedback in the future.

Helpfulness, however, is not always the most reliable factor. In this study 83% of students indicated that they found screencasted feedback more helpful than written comments in their revising their papers 13% more than students who preferred screencasted feedback. This can be seen in other modalities as well. In Mulliner and Tucker's (2017) study 94% of students found that face-to-face conferences were “very effective” (p. 271) as a feedback modality, but only 46% of students prefer face-to-face conferences. Parkin *et al.* (2012) suggest the discrepancy may be due to a student's desire to view feedback in private, while Silva (2012) suggests that it may be due to the inconvenience of setting up a meeting time with the instructor. Screencasting may be a good middle ground between the effectiveness of having a face-to-face conversation with the instructor, and being able to view feedback on your own time in private. A few students indicated that they already felt this way, commenting that they felt screencasting

was like a “meeting you can listen to on your own time” (F5), and they felt like they were having a conversation (F13). Two students disagreed, however. One stated that they felt screencasting prevented them from speaking to the instructor face-to-face, and the other felt as though they could not respond to the comments (M15, F10).

Rapport and engagement also had similar discrepancies between preference. Eighty-seven percent of students perceived a stronger rapport with their instructor after receiving screencasted feedback 17% higher than students who preferred screencasted feedback. Eighty percent of students felt they were more engaged with screencasted feedback 10% more than preferred screencasting. One explanation for this is a general unwillingness to engage with feedback. Two students, F3 and M10, found screencasting more engaging, more helpful, and felt that it built a stronger rapport, but indicated they did not prefer screencasted feedback. In their short answer comments, both students said they skipped the feedback to the end of the videos to hear their grades.

4.5 Technology

Previous research was concerned that the audio-visual medium was unnatural to some students; especially students who may be older (Orlando, 2016). However, Vincelette (2013) believes that screencasted feedback mimics the audio-visual media that millennial students encounter everyday, and therefore is more natural and engaging to them. In this study all students were at least somewhat comfortable with basic computer skills, basic internet skills, and the basic functions of Canvas. More than 90% of student were either comfortable or very comfortable with all three skills. Only 1 student indicated that they were not comfortable viewing feedback on Canvas, and another student was somewhat comfortable. In contrast to these results, more than 90% were either comfortable or very comfortable.

Similarly, regarding the frequency that students use of digital multimedia either in the classroom or for their own enjoyment, 90% of student engaged with at least one type of digital multimedia everyday, mostly with internet videos for their own enjoyment and social media sites. For the three students that did not answer everyday for any particular question, it does not mean they don't use some sort of digital multimedia everyday; each of them answered 3-4 times per week on at least one question so it's likely they still use some sort of digital multimedia everyday.

With such a high percentage of comfort with and frequent use of digital multimedia, these results would confirm Vincelette's (2013) ideas of students being digital natives to whom the internet and the media on the internet are already natural. Discomfort with the technology did not seem to have an adverse effect on the results of this study. Only one student reported having any technical issues with the screencast, but said they were able to get it "sorted out quickly" (M13). The technical issue did not seem to affect the student's overall impressions of screencasting as they would prefer screencasted feedback in the future and rate it highly.

4.4 Drawbacks

Students had two main complaints about screencasted feedback in this study. The first is that reviewing screencasted feedback took too much time, and the second that it wasn't as easy to refer back to specific points in the feedback. Students commented that they sometimes did not want to take the time to review the feedback, that the videos were too long and shorter videos would encourage students to watch them, screencasting was too long in general, and that they could read the same information in a "fraction of the time" (F12, F11, M12, N1). The criticisms of screencasting felt by the students didn't necessarily mean they did not still prefer screencasted feedback. Student F12, who said they did not always want to take the time to view

their screencasts, also felt screencasting improved their writing, and would prefer to receive screencasted feedback in the future. Student F11, who also expressed concern that screencasted feedback was too long, said they would prefer screencasted feedback in the future because it “helped [them] learn from [their] mistakes.” On the other hand, student M12 preferred textual feedback “because its [sic] quicker.” They also said they don’t look at their feedback most of the time after they receive their grade (M12).

In regards to the ease of reference, students indicated that they felt textual comments were easier to refer back to. One student commented that “It was annoying to have to watch the video over and over again to find specific area where I was looking for comments the teacher had made” (F2). Vincelette and Bostic’s (2013) study found that students prefer a combination of screencasted and textual feedback. The combination would allow students to refer back to specific points more quickly, as they might not need to hear the explanation again but do need to find where in their essay the instructor commented on. It would also allow students to read the feedback and skip the screencast if they prefer textual feedback. This would, however, be more time consuming for the instructors. Vincelette and Bostic’s (2013) study also found that time spent providing textual feedback and screencasted feedback was essentially the same. Providing both, though, would require more time.

There were a few complaints about “subpar” (M1) sound quality. This is an example of the technological problems that instructors using screencasting could encounter. Even when the sound quality is good on TinyTake, it’s not amazing. On top of that, my microphone broke part way into giving feedback for the first class, on their first essay. I was able to get a new microphone for the second class on the first essay, but did not have time to re-record the first classes’ feedback. So, the majority of students in the first class received a very grainy sounding

feedback on their first essay; my feedback on their second essay sounded better. The complaints about sound quality did not seem to turn students off of screencasting. Student M1, the same students who commented the sound quality was subpar, liked the “ease of listening” to their feedback most about screencasting.

5 Conclusion

In my first semester teaching a first-year composition course, my mentor told about a 25% 50% 25% rule. He explained it as a general breakdown of student engagement in the class: 25% of students are going to be on-board with whatever you do, and 25% of students are going to be disinterested and disengaged from class no matter what activities and tricks you have. Then there's the other 50%, and it is this group of students that could swing either way.

5.1 Limitations and Future Research

Screencasting is not a magical modality that will cause students to engage with or care about their feedback, but it does seem to help engage a few students who might otherwise not be willing to engage. Students who participated in this study felt screencasted feedback built a stronger rapport with their instructor, was more clear, more helpful, and more engaging. Seventy percent of students said they prefer to receive screencasted feedback in the future, and 70% would recommend that other instructors screencast their feedback as well. However, when given the chance to revise their papers for a better grade, not one student chose to do so.

The decisions whether to revise their papers, or not, may not be the best indicator of screencasting's ability to engage students. Students may choose not to revise due to their own workloads. Also, students who already received the grade they wanted may not want to take the extra time to revise. This effect may have been magnified during this study as I believe myself to be a light grader, and, therefore, more students may already be satisfied with the grades they received. Also, this study looked at the first two of three major essays assigned during the semester. A few students did choose to revise their final essays if they were within reach of the next letter grade on their final grades for the semester. Sopina and McNeil (2015) found that

students are more motivated by grades than by learning outcomes. It is difficult to quantify how screencasting motivates students to revise when grades also influence their decisions. It is clear, however, that screencasted feedback does not overcome students' concern for grades over learning outcomes.

This study was conducted with a small group of students who were all relatively inexperienced with college level writing and feedback. While there is a growing body of work that suggests students prefer screencasted feedback, a larger sample size would be needed to make more reliable generalizations across the student body. The study also had no control group, nor did the students receive both screencasted feedback and textual feedback on their major assignments; all students received only screencasted feedback. Therefore, the study is relying on students being able to compare past experiences with textual feedback with their current experiences with screencasting. Since all students were in their first semester of college, this study relied on student's experiences with feedback from high school. The feedback practices in high school may differ from common practices of feedback in college composition. More accurate results could be obtained if participants had received both textual and screencasted feedback in college composition, and ideally from the same instructor over multiple semesters. Students may find feedback from one instructor easier to understand, more engaging, and more helpful than feedback from another instructor regardless of modality. So, it would be beneficial to have students experience textual and screencasted feedback from the same instructor.

The novelty of a new feedback modality may have contributed to the high opinion students had of screencasting in this study. It's unclear how much a novelty affected students' perceptions in this study, and this study was not able to test how students react if the novelty wears off. A study could be designed to assess whether there is a novelty factor that contributes

to the higher marks students have given to screencasting in these smaller pilot studies, and, if there is, how much does the novelty factor affect students perceptions of screencasted feedback over time. To assess the novelty factor a study would have to be done over the course of multiple semesters, or, possibly, multiple years. Again feedback efficacy may differ from instructor to instructor so it would be difficult to quantify the quality of feedback to compare students reactions over multiple years and semesters.

If novelty does contribute to student engagement and the efficacy of the feedback in helping student writing, it calls into question how much should novelty play a role in an instructor's decision as to which modality they provide feedback. It may not be possible to continually devise a new system to keep the novelty factor alive through multiple years of instruction. Also, if an instructor implements a new system too often students may not react positively to the constant changes, and may desire a more consistent feedback experience regardless of efficacy. Students must learn how to engage with feedback, and each time the modality changes they must relearn how to engage. Therefore, it may be beneficial for instructors to find with modality works for them, and their students, and remain consistent.

Students in this study perceived screencasted feedback to build a stronger rapport with the instructor. However, this feeling of rapport may be due to the relatively small class size of first-year composition, which is capped at 20 students. The majority of first year classes have 100 students or more, and I've been told some classes have up to 500 students assigned. The more intimate setting of First Year Composition may cause the students to feel a stronger rapport with their instructor regardless of feedback modality or style.

It's also not clear how rapport relates to motivation, engagement, and learning. I originally theorized that a student's perception of instructor caring would in turn engage them in

more in the class, and also motivate them to revise their papers. However, as stated before, no students chose to revise, and this study did not address student engagement in class and how it changed over the course of the semester. A study looking directly at the effects of student-instructor rapport on classroom engagement and performance would be beneficial to determine whether the stronger rapport reported by students in this study is a significant factor instructors should take into consideration.

Students in this study mentioned time as being a factor in preference for screencasting and willingness to engage with feedback. The length of the screencasts at five minutes was a major complaint. A further study designed to determine what amount of time students are willing to spend engaging with feedback could provide valuable information about how to design feedback strategies moving forward.

Lastly, I'd like to address a potential flaw in the survey design. Many of the questions were asking student how much or if they agreed with statements. For example: Q2_9 stated "Compared to written comments: Screencasting made me feel a better connection with my instructor." Such a prompt asks students to rate how much they agreed based on a seven point Likert scale ranging from Strongly Disagree to Strongly Agree. The prompt's phrasing may have attributed to the high marks students left due to an acquiescence bias, where people are more likely to agree with a given statement than to disagree. A revised version of the question might read, "Does screencasting or written feedback help me better connect with my instructor?" in order to avoid this bias.

5.2 Critical Reflection

Considering the results of this study and my own experiences in giving screencasted feedback, I believe I will continue providing students with screencasted feedback. The reported

preferences for screencasted feedback by students do play a role in that decision, but it is not the only reason. One reason I will continue is that I feel I provide better feedback through screencasting. I feel my screencasted feedback is more explanatory than my written comments, and that I am better able to address global concerns- such as organization, development, and the student's ideas- rather than copy editing their papers. Addressing and prioritizing global concerns will benefit students' academic writing more than simply correcting sentence level errors.

From my perspective as a student, I remember receiving screencasted feedback and finding it more helpful in applying revisions to my papers. I also found that it helped me understand how to apply feedback to my writing assignments in the future. I found myself more motivated to write after having received screencasted feedback, and I hope that other students will feel the same way. I know that my anecdotal experience alone is not sufficient to justify my decision to continue screencasting my feedback, but I do factor in that experience.

Another reason I believe I'll continue giving screencasted feedback is that I'm currently more comfortable giving screencasted feedback compared to written comments. I began giving screencasted feedback on the second essay I assigned and have continued ever since. I'm less practiced at giving written comments, and less comfortable. I find myself second guessing my written comments and constantly revising them. With screencasting, if you make a small error you correct, move on, and at the end of the five minutes your feedback is set; there is no way to revise the screencast without re-recording.

This study has helped me understand what students like in their feedback regardless of modality. Many of the comments students left focused on how they liked being provided with a solution, or given the means to fix their mistakes, rather than just having their mistakes brought

to their attention. Though students did not revise their essays during this study so it's difficult to say how explanatory and helpful my feedback was, it's an aspect of my feedback I can focus on developing and improving. Students also reported they enjoyed the specificity of the comments, so I can also tailor my comments to minimize ambiguities.

This study has also caused me to question how I handle grades in my classroom. During the study I did not post grades to Canvas immediately to encourage students to watch the screencasts, but there were two students who admitted that they did not watch the feedback fully and skipped to the end to hear their grades. If students are also more motivated by their grades compared to the learning outcomes, how do I design a grading strategy around my feedback strategy that could help motivate students to improve their writing? Would withholding grades altogether allow students to focus on the learning outcomes, or without grades is there no motivation to do well? Perhaps a portfolio system where the focus throughout the semester is on learning outcomes and then culminate in a final grade would be an effective balance between learning outcomes and grades.

Ultimately, a student's willingness to engage with feedback is a choice they will make regardless of how helpful, novel, or effective the feedback is. However, as of now, through the results of this study, and in my experiences as both a student and instructor, screencasting has shown itself to be a more effective method for providing feedback on writing. If students are more engaged with, more willing to use, and learning more from screencasted feedback then providing screencasting feedback would both help students more, and be a better use of their time. If students are more engaged with, more willing to use, and learning more from screencasted feedback, providing students with screencasted feedback would also be a better use of the instructor's time.

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Appendix A

Student Perceptions of Multimodal Feedback

Default Question Block

Q15 By clicking agree, I am consenting that this anonymized data is allowed to be used in research.

- Agree (1)
- Disagree (2)
-

Q13 Are you 18 years old or older? If yes please continue, if no please stop here.

- Yes (1)
- No (2)

End of Block

Block 4

Q19 How comfortable are you with

	Not comfortable (1)	Somewhat comfortable (2)	Comfortable (3)	Very comfortable (4)
Basic computer skills? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic internet skills? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Basic functions of Canvas? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Viewing feedback on Canvas? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q18 How frequently do you use computers/cellphones/tablets to:

	Never (1)	Less than once a week (2)	Once or Twice a week (3)	Three or four times a week (4)	Five or six days a week (5)	Everyday (6)
Complete or turn in classwork? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch videos assigned by the teacher (either in the classroom or outside of the classroom)? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch educational videos not assigned by the teacher to enhance your understanding or clarify lessons you learned in the classroom? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Watch internet videos for your own entertainment and enjoyment? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
View social media sites (Instagram, Facebook, Snapchat, Twitter, WeChat, etc) (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block

Block 3

Q9 Have you received screencasted feedback before this class?

- Yes (1)
- No (2)
-

Q2 Compared to traditional written comments:

	strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
Screencasted feedback helped me better understand how to address organizational concerns in my essay. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Screencasted feedback helped me better understand how to address concerns about focus and purpose in my essay. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Screencasted feedback helped me better understand how to address concerns about tone and style in my essay. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Screencasted feedback helped me better understand how to address editing and proofreading concerns in my essay. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Screencasted feedback helped me better understand how to revise my essay to make it more rhetorically effective. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel I received more feedback with screencasting. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I retained feedback better with screencasting. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Screencasted feedback better motivated me to apply feedback to future papers. (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Screencasting made me feel a better connection with my instructor. (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block

Block 2

Q3 What are your overall impressions of screencasted feedback?

Q4 Do you think screencasted feedback was more effective than written comments? Why? or why not?

Q10 Would you prefer to receive screencasted feedback in the future? Why? or why not?

Q5 What did you most like about receiving screencasted feedback?

Q6 What did you least like about receiving screencasted feedback?

End of Block

Block 1

Q11 What is your gender?

- Male (1)
- Female (2)
- Non-binary (3)
-

Q12 What is your age?

- <18 (1)
- 18-19 (2)
- 20-21 (3)
- 22-23 (4)
- 24+ (5)
-

Q7 What year of college are you in?

- Freshman (1)
- Sophomore (2)
- Junior (3)
- Senior (4)
- Graduate (5)
-

Q8 Are you an ESL or ELL student?

Yes (1)

No (2)

Q16 If you are an ESL or ELL student, what is your native language?

Q17 What is your race/ethnicity? Please select all that apply.

White (1)

Black or African American (2)

American Indian or Alaska Native (3)

Asian (4)

Native Hawaiian or Pacific Islander (5)

Middle Eastern (6)

Hispanic or Latino (7)

Other (8)

End of Block

Appendix B

Rhetorical Analysis Grading Rubric		
Evaluation Criteria		
<p>FOCUS & PURPOSE <i>Globally</i>, the essay argues for the successful/unsuccessful uses of rhetorical appeals with its audience. Accurately explains how rhetorical appeals function. Spends majority of the time analyzing and evaluating rhetorical strategies and their effectiveness. <i>Locally</i>, the essay focuses on 1 idea per paragraph, and argues for its function.</p>		
<p>DEVELOPMENT <i>Globally</i>, the essay discusses at least 1 example for each primary rhetorical appeal (ethos, pathos, logos) and addresses kairos and audience sufficiently. The essay includes detailed explanations to connect each appeal's success or failure. Argues for how the rhetorical appeals work together within the argument as a whole. <i>Locally</i> the essay includes transitional exposition to guide through readers through progressive development of analysis.</p>		
<p>ORGANIZATION The <i>global</i> arrangement of ideas guides readers through the visual's use of rhetorical appeals. Connections between rhetorical appeals are communicated clearly through the paragraphs' organization in a logical and easy to follow order. Organization enhances reader understanding of the writer's analysis. The <i>local</i> arrangement of ideas follows the Three-Ex structure, guiding readers clearly through Exposition, Example and Explanation in each paragraph. Example and Explanation may be repeated in a given paragraph.</p>		
<p>TONE & STYLE Tone and style are appropriate for the audience and purpose. Sentences and word choice are clear and to the point. Excess wording and sentences are removed. The essay has a title.</p>		
<p>EDITING & PROOFREADING Relatively free of distracting surface errors or errors that inhibit clarity. Essay is formatted in the required MLA Style</p> <ul style="list-style-type: none"> - 12 point Times New Roman Font - Double spaced - 1 inch margins on all sides - Last name and page number in upper right corner - Student's Name, Course Name, Instructor Name, and Date are identified in the upper left of the first page. 		

Appendix C

Hello,

I am conducting a research project to gauge effectiveness of screencasting as a feedback modality. Since you have given feedback to your students via screencasting I'd appreciate if you would forward the email below to your students inviting them to participate in a voluntary and anonymized survey. A short description of the project can be found in the email below.

Thank you for your consideration

Chris Lindgren

Hey everyone,

Chris Lindgren and Jonathan Harding, from Virginia Tech's Department of English, are conducting a research project to gauge the effectiveness of screencasting as a feedback tool. Screencasting is the process of capturing a computer screen output so that the viewer is able to see what a user is doing on their screen, and is often accompanied by an audio track of the user speaking. As you have received feedback on your major assignments as screencasted feedback, we would appreciate if you took about 10 minutes of your time to fill out this survey to aid in our research. This research will be used as part of a thesis project and published.

Participation is voluntary and your answers anonymous. Participants must be 18 years or older. Please note that your decision to participate in this study, or not, will have no effect on your grade in class.

If you are interested please click this link:

https://virginiatech.qualtrics.com/jfe/form/SV_3dWQaq5LKIJJH

Should you have any questions or concerns about the study's conduct or your rights as a research participant, or need to report a research-related injury or event, you may contact the Virginia Tech Institutional Review Board at irb@vt.edu or (540) 231-3732.

Thank you for your time,

Chris Lindgren and Jonathan Harding