Modes of feedback in ESL writing: Implications of shifting from text to screencast

by

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The student author, whose presentation of the scholarship herein was approved by the program of study committee, is solely responsible for the content of this dissertation. The Graduate College will ensure this dissertation is globally accessible and will not permit alterations after a degree is conferred.

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DEDICATION

This dissertation is dedicated to my parents, who will see it as a bigger deal than I do.

TABLE OF CONTENTS

Page

LIST OF FIGURES	vi
LIST OF TABLES	vii
ACKNOWLEDGMENTS	. viii
ABSTRACT	X
CHAPTER 1. GENERAL INTRODUCTION Impact points of mode in technology-mediated feedback Text-based electronic feedback Audio feedback Screencast video feedback Managing negative feedback Relationship in feedback A framework for investigating the interpersonal language of feedback Learner training with technology-mediated feedback Understanding revision with technology-mediated feedback Connecting literature with the current project	3 4 6 9 15 17 20 23 24
Dissertation overview CHAPTER 2. STUDENT PERCEPTIONS AND USE OF TECHNOLOGY-	27
MEDIATED TEXT AND SCREENCAST FEEDBACK IN ESL WRITING Abstract Technology and feedback Electronic text feedback comments in SLW	31
Video feedback	39
MethodologyParticipants	41 41
TasksFeedback	44 44
SurveysScreencast revisions	46 46
Interviews	46

Procedures	47
Data collected	48
Analysis	49
Results and discussion	
Student perceptions	
Student use of feedback	
Draft comparisons, noticing and revision	
Questions and help patterns	
Revision behavior	
Conclusion and implications	
Appendix	
CHAPTER 3. APPRAISAL AS A FRAMEWORK FOR UNDERSTANDING	
MULTIMODAL ELECTRONIC FEEDBACK: POSITIONING AND	
PURPOSE IN SCREENCAST VIDEO AND TEXT FEEDBACK IN ESL	
WRITING	71
Abstract	71
Screencast video feedback	74
Framework considerations for multimodal feedback	76
APPRAISAL as a framework for analysing feedback	78
The present study	
Methods	85
Data analysis	87
Trustworthiness	90
Findings	91
APPRECIATION in screencast and text feedback	91
GRADUATION of APPRECIATION in screencast and text feedback	94
Engagement in screencast and text feedback	96
Conclusion	
Positioning and purpose of feedback	100
Considerations for future work	
CHAPTER 4. HOW TECHNOLOGY CHANGES LANGUAGE AND	
FEEDBACK: APPRAISAL IN TEXT AND SCREENCAST FEEDBACK	
ON ESL WRITING	107
Abstract	
Interpersonal aspects of feedback	109
Theoretical and conceptual framework	
Appraisal	
Engagement	
ATTITUDE	
GRADUATION	
Methodology	
<i>5.</i>	123

Data preparation	124
Data coding	124
Analysis	129
Findings	
Engagement	131
Attitude	133
APPRECIATION in text & video feedback	134
Individual variation in attitudinal resource use	139
Conclusion	141
Appendix	
CHAPTER 5. GENERAL CONCLUSION	147
Significance and implications	148
Practical considerations	
Significance	
Directions for future research: Expanding our understanding of the	
impact of mode	151
Participants and context in future research	
Methodological contributions & opportunities	
REFERENCES	159
APPENDIX – IRB APPROVAL	173

LIST OF FIGURES

	Page
Figure 2.1. Procedure overview	48
Figure 2.2. Student ratings of ease of understanding text and video feedback component on follow-up surveys	56
Figure 3.1. Diglossic ENGAGEMENT resources, adapted from Martin & White (2005) Fig. 3.4 p. 134	82
Figure 3.2. Distribution of positive and negative APPRECIATION resources object of APPRECIATION	
Figure 3.3. Side-by-side box plots of percentages of negative APPRECIATIO student texts in video and text feedback by assignment	
Figure 3.4. GRADUATION of APPRECIATION across video and text feedb	ack 95
Figure 3.5. Proportional distribution of expanding and contracting ENGAGE resources by mode of feedback	MENT 97
Figure 3.6. Proportional distribution of ENGAGEMENT resource types in vi	
Figure 3.7. Proportional distribution of imperatives and directives in text and feedback	
Figure 4.1. ENGAGEMENT network adapted from Martin & White (2005) F p. 134	
Figure 4.2. Expanding ENGAGEMENT resources by instructor normed to 10 instances of ENGAGEMENT	
Figure 4.3. Proportions of positive and negative ATTITUDE by instructor	134
Figure 4.4. Normed frequencies of negative APPRECIATION of student text text and video feedback by instructor	
Figure 4.5. Proportion of negative APPRECIATION of student text with low GRADUATION in text and video feedback by instructor	
Figure 4.6. Types & objects of ATTITUDE by instructor & mode	140

LIST OF TABLES

	Page
Table 1.1. Feedback types by student group and assignment	27
Table 2.1. Example of feedback on similar concerns across modes	45
Table 2.2. Feedback types by group and task	47
Table 2.3. Feedback coding definitions and examples.	50
Table 2.4. Positive* student ratings of text & screencast feedback on follow-up surveys	54
Table 2.5. Student ratings of text & video feedback on final survey	59
Table 2.6. Percentage of global and local changes made by feedback type	60
Table 3.1. Feedback mode by assignment	86
Table 3.2. APPRECIATION coding categories and examples	88
Table 3.3. GRADUATION coding examples	89
Table 3.4. Coded categories of disglossic ENGAGEMENT with examples	90
Table 4.1. Number of video/text feedback files per instructor by assignment	123
Table 4.2. ENGAGEMENT codes and examples	125
Table 4.3. Definitions and examples of ATTITUDE type coding	128
Table 4.4. Definitions and examples of subtypes of APPRECIATION	128
Table 4.5. GRADUATION coding examples	129
Table 4.6 . Block significance for binary logistic regression on expansion	132
Table 4.7. Variables in logistic regression on expanding resources	132
Table 4.8. Block significance for logistic regression on negative appreciation of student text	136
Table 4.9. Variables in logistic regression on negative APPRECIATION of student text	136

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ABSTRACT

For second language writing (SLW) instructors, decisions regarding technology-mediated feedback are particularly complex as they must also navigate student language proficiency, which may vary across different areas such as reading or listening. Yet technology-mediated feedback remains an underexplored realm in SLW especially with regard to how modes of technology affect feedback and how students interact with and understand it. With the expanding pervasiveness of video and increased access to screencasting (screen recording), SLW instructors have ever-growing access to video modes for feedback, yet little research to inform their choices. Further, with video potentially requiring substantial investment from institutions through hosting solutions, a research-informed perspective for adoption is advisable. However, few existing studies address SLW feedback given in the target language (common in ESL) or standalone (rather than supplemental) screencast feedback.

This dissertation begins to expand SLW feedback research and fill this void through three investigations of screencast (video) and text (MS Word comments) feedback in ESL writing. The first paper uses a crossover design to investigate student perceptions and use of screencast feedback over four assignments given to 12 students in an intermediate ESL writing class through a combination of a series of surveys, a group interview and screen recorded observations of students working with the feedback. The second paper argues for APPRAISAL an outgrowth of systemic functional linguistics (SFL) focused on evaluative language and interpersonal meaning, as a framework for understanding interpersonal differences in modes of feedback through an analysis of 16

text and 16 video feedback files from Paper 1. Paper 3 applies a more intricate version of the APPRAISAL framework to the analysis of video and text feedback collected in a similar crossover design from three ESL writing instructors.

Paper 1 demonstrates the added insights offered by recording students' screens and their spoken interactions and shows that students needed to ask for help and switched to the L1 when working with text feedback but not video. The screencast feedback was found to be easier to understand and use, as MS Word comments were seen as being difficult to connect to the text. While students found both types of feedback to be helpful, they championed video feedback for its efficiency, clarity, ease of use and heightened understanding and would greatly prefer it for future feedback. Successful changes were made at similar rates for both types of feedback.

The results of Paper 2 suggest possible variation between the video and text feedback in reviewer positioning and feedback purpose. Specifically, video seems to position the reviewer as holding only one of many possible perspectives with feedback focused on possibility and suggestion while the text seems to position the reviewer as authority with feedback focused on correctness. The findings suggest that APPRAISAL can aid in the understanding of multimodal feedback and identifying differences between feedback modes.

Building on these findings, Paper 3 shows substantial reduction in negative appreciation of the student text overall and for each instructor individually in video feedback as compared to text. Text feedback showed a higher proportion of negative attitude overall and positioned the instructor as a single authority. Video feedback, on the other hand, preserved student autonomy in its balanced use of praise and criticism,

offered suggestion and advice and positioned the instructor as one of many possible opinions. Findings held true in sum and for each instructor individually suggesting that interpersonal considerations varied across modes. This study offers future feedback research a way to consider the interpersonal aspects of feedback across multiple modes and situations. It provides standardization procedures for applying and quantifying APPRAISAL analysis in feedback that allow for comparability across studies. Future work applying the framework to other modes, such as audio, and situations, such as instructor conferences, peer review, or tutoring are encouraged. The study also posits the framework as a tool in instructor reflection and teacher training.

Taken together the three studies deepen our understanding of the impact of our technological choices in the context of feedback. Video feedback seems to be a viable replacement for text feedback as it was found to be at least as effective for revision, while being greatly preferred by students for its ease of use and understanding. With the understanding of how students use feedback in different modes, instructors can better craft feedback and training for their students. For instance, instructors must remember to pause after comments in screencast feedback to allow students time to hit pause or revise. Video was also seen to allow for greater student agency in their work and position instructor feedback as suggestions that the student could act upon. These insights can help instructors choose and employ technology in ways that will best support their pedagogical purposes.

CHAPTER 1. GENERAL INTRODUCTION

Feedback on student work is a vital yet debated practice in second language writing (SLW). This feedback can come from many sources. It may be generated by peers, instructors or computers. While computer-generated feedback and peer feedback have gained popularity and visibility recently with growing interest in automated writing evaluation (AWE) and peer collaboration, instructor-generated feedback remains a ubiquitous fixture of the SLW classroom. Current technology offers these instructors a myriad of choices when providing feedback, often leaving instructors wondering which tools to adopt to reach their learners and efficiently use their time. Despite this growing wealth of technological affordances and modes for instructors to choose from when providing this feedback, little research has investigated these tools in SLW. Instructors and the administrators who support them require more research to make informed choices about where they should invest their time and budgets.

Computer-mediated communication (CMC) has become a part of daily routines for many instructors and students. We use email, chats, discussion boards, course management systems, video chats, social networks, instructional videos and websites often without even thinking about them. Learning with technology has become second nature for many. According to a 2015 Google report (Morgensen, 2015) "how to" searches on YouTube are growing 75% each year and 67% of Millenials, a target population for many ESL programs, believe "they can find a YouTube video on anything they want to learn" (p. 4). It makes sense then that our feedback also uses CMC. Many instructors already employ CMC feedback, often through text comments exchanged via a course management system or email. But how does our choice of mode—perhaps written

as seen in emails and static webpages or video as seems to be a common way for our student to learn—impact our feedback, and our students? Just as we know sitting in a lecture is different from watching a video, or reading an email is different from a chat, and texting is different from video chat, the mode of CMC we use for feedback is likely to lead to some change.

The mode of communication becomes even more important in the SLW class, particularly when the communication is held in the target language. As language instructors are well aware, a student's prior experience and education may influence their proficiency and progress with different language skills (reading, writing, listening, speaking). With ESL students, we often find that those who have lived and worked in the United States for many years have excellent listening and speaking skills but significantly lower proficiency in reading and writing. Others who are new arrivals to the US coming from reading-, writing- and translation-heavy programs abroad may have greater facility with written language but significantly lower level listening skills. These students may then respond to different modes of CMC in different ways. SLW feedback often must address language concerns in addition to content, making the feedback in a SLW course potentially distinct from the feedback given in composition or content courses. It is for these reasons that it is vital that modes of CMC for feedback be studied specifically in SLW classes. The results of broader studies (discussed below) in university contexts focusing primarily on native speakers cannot be easily transferred to the SLW classroom. However, it is in these broader native speaker contexts that most CMC, or technologymediated, feedback research has taken place.

This dissertation will bring research on modes of technology-mediated feedback to the SLW and ESL writing classroom with the broad goal of investigating what happens when feedback shifts modes. Specifically, it will look at written modes of feedback through instructor comments alongside the student text as is seen in MS Word's comments feature and audio commentary with visual signaling over the text as is seen in screencast video. In doing so, it focuses on two key areas affected by mode—the effects from creation and the effects during application of feedback—through techniques and foci not often employed in the study of technology-mediated instructor feedback in SLW writing—the language of the feedback itself with a focus on the interpersonal aspect of the feedback as seen through APPRAISAL analysis and the student experience as seen through perceptions and use of feedback in revision.

Impact points of mode in technology-mediated feedback

The influence of mode on feedback may be considered in multiple ways. Mode affects the feedback process in two key places—the creation of feedback and the application of feedback. The first impact of mode is seen as instructors create feedback. It can influence the way they give feedback and change their process. Effects of this impact may be seen in the feedback itself. But how does this impact manifest in the feedback itself? What about the feedback may differ with mode? This has yet to be fully explored through research.

More frequently, when considering the impact of mode, we think about the impact a change in mode has on the receiving end of feedback: how students experience the feedback. This student experience is influenced both by the mode of the feedback they are working with and how the feedback has been impacted by mode when it was created.

The majority of technology-mediated feedback studies focus on this student-focused impact point, on the student perceptions or final revisions. However, studies tend to miss the process by which students interact with the feedback and often do not give equal treatment in comparing modes. As a result, little is known about how students interact with instructor feedback in digital text such as MS Word comments nor is much known about how they interact with more multimodal forms of feedback such as screencasting. Indeed, our understanding of technology-mediated instructor feedback in SLW contexts, and in ESL contexts in particular, remains limited.

Text-based electronic feedback

Of the existing asynchronous instructor-provided technology-mediated feedback studies in SLW, many have simply mentioned electronic text and delivery systems rather than consider them a key part of the investigation. For instance, Chiu and Savignon's (2006) case study, which found content-based feedback yielded more changes than form-focused comments, and Hosseini's (2012) study, which found explicit targeted (rather than implicit) feedback to result in greater accuracy in preposition use, provided text-based feedback through email communication. Beyond email, other studies have used text-based responses to student writing facilitated by a course management system (CMS) Dropbox and grading system (e.g., L. Lee, 2010; Topping, Dehkinet, Blanch, Corcelles, & Duran, 2013) or discussion boards (e.g., Matsumura & Hann, 2004). A few studies have investigated text-based feedback with additional affordances such as the use of *Markin* (a Windows-based tool that allows for inserting of color-coded premade feedback codes in a short text) in Byrne's (2007), hyperlinked explanations as in Yeh and Lo's (2009) "Online Annotator for EFL Writing" or Gaskell and Cobb's (2004) premade

hyperlinks to relevant concordance lines and tools bridging the feedback with corpus study and language tools. Others have employed basic features of electronic text feedback such as underlining and error coding for novel uses such as to prompt corpus use (Tono, Satake, & Miura, 2014). Further investigation into the incorporation of additional affordances may bring to light valuable resources for providing meaningful feedback to students on their writing. Milton (2006) cautioned that learning climate, learner training, and learner accountability could affect students' successful autonomous use of resources offered through feedback. Thus, studies need to consider multiple contextual aspects in investigating feedback use.

Milton (2006) further noted that a move to digital feedback systems requires a paradigm shift for many instructors, particularly for those used to paper-based writing environments. Indeed, more than a decade later, many instructors resist moves to digital feedback. This reluctance remains despite features such as track changes in Word having been around since at least 1997 and SLW literature advocating for the use of these MS Word features, citing them as advantageous over handwritten comments (Ferris, 2012; Rodina, 2008; Tafazoli, Nosratzadeh, & Hosseini, 2014). In response to this instructor hesitation, studies have continued to compare technology and non-technology conditions in hopes of showing the viability of digital text feedback. For instance, Ene and Upton (2014), using a noninterventionist approach, suggested that since MS Word track changes and comments on undergraduate ESL engineering students developmental and composition course writings looked similar to handwritten comments and could lead to successful revision, electronic feedback was effective and should not be avoided.

Despite the positive literature on electronic text feedback, it retains many of the issues seen with handwritten feedback, especially concerning student reactions (Ferris, 2012), some of which can be tied to specific attributes of the mode. For instance, red corrections absent of praise can be promoted through default options in software, and the resulting feedback can seem demotivating and aggressive to students (Byrne, 2007). Such issues are common with written feedback (e.g., Treglia, 2008). New issues with feedback can also arise with mode. For example, while cloud-based provisions such as access to documents online in platforms such as Google Docs have been seen as beneficial (Kim, 2010) by some students, others—especially those who need to create an additional email account to access the service or those with no or slow internet access at home —often find it a burden (Aubrey, 2014). Despite the acknowledgement of the influence of mode attributes on the student revision experience, apart from student self-reports (e.g., Aubrey, 2014; Séror, 2011) and draft comparisons, few studies have considered how student use and interaction with feedback might be impacted by more ubiquitous electronic modes such as MS Word comments and track changes features. A combination of self-report and observation with a focus on the mode and student use of feedback might offer new insights into what has often been considered a simple control against which newer feedback modes, such as video (e.g., Ducate & Arnold, 2012; Thomas, West, & Borup, 2017), might be compared.

Audio feedback

Similar to explorations into electronic text, investigations into other modalities in technology-mediated feedback in SLW have been limited. In the case of audio feedback, SLW has tended to lag behind such investigation in other fields. Audio feedback has been

a topic of discussion in college-level English composition studies since at least the 1970s (Klammer, 1973) and continues to prompt investigations today (see Mrkich and Sommers, 2016, for a detailed bibliography and Killoran, 2013, for a synthesis). Audio holds possibility for addressing SLW feedback's goals to be specific (Busse, 2013; Ferris, 1997) and well explained (Ferris, 1995). In comparing it to written feedback, composition studies has positioned audio feedback as easier to understand (Bauer, 2011; Cavanaugh & Song, 2014; Hunt, 1989; J. Sommers, 1989; Yarbro & Angevine, 1982), more personal (Anson, 1999; Bauer, 2011; Cavanaugh & Song, 2014; Olsen, 1982; J. Sommers, 1989; Yarbro & Angevine, 1982) and faster to create (Olsen, 1982; J. Sommers, 1989) while offering more global (Cavanaugh & Song, 2014), more explanatory (Anson, 1997, 1999; Olsen, 1982) feedback. It has been said to have a conversational tone (J. Sommers, 1989) that emphasizes the teacher-student relationship (J. Sommers, 2012) and incorporates comments beyond the draft to speak to student writing development overall (Anson, 1999; Bauer, 2011; J. Sommers, 2012). Most reports cite generally positive student responses to audio feedback with composition students preferring it for future feedback (Still, 2006; Yarbro & Angevine, 1982). It has been suggested that audio feedback could be particularly helpful for students with numerous issues in their writing (Yarbro & Angevine, 1982) and could help students develop greater audience awareness (Hunt, 1989). Olsen (1982) proposed that audio feedback might be better than written feedback for ESL students as it may be easier to understand for those with higher listening proficiencies and could offer simultaneous listening practice.

Meanwhile, empirical studies of asynchronous audio feedback in ESL and other SLW contexts have been largely limited to the use of audiotapes. Audiotaped feedback in

SLW has been advocated as a way of facilitating teacher as reader feedback (McAlpine, 1989). K. Hyland (1990), suggesting effective feedback is necessarily interactive, found that audio feedback linked to numbered paper comments resulted in positive responses from intermediate to advanced learners. Similar to findings in L1 studies, audio feedback has been seen to lead to more global feedback (Boswood & Dwyer, 1995/6; Morra & Asis, 2009) that promotes audience and context awareness (Boswood & Dwyer, 1995/6). Patrie (1989) positioned audiotaped feedback as advantageous over conferences in its ability to overcome the affective filter and provide repeated playback and superior to written feedback in its personalization, content focus and positive student response. Indeed, undergraduate Hong Kong EFL students in a study by Boswood and Dwyer (1995/6) found audio-taped feedback to be more engaging, personal and refreshing than written feedback. These sentiments were echoed by sophomore college English majors in an EFL composition course in Taiwan during Huang's (2000) study. In a study of postintermediate undergraduates in an EFL course in Argentina, Morra and Asis (2009) found audio feedback to prompt revision, self-confidence and positive student response, findings that mirror the results of Sipple's (2007) work with developmental writers. However, despite increasingly widespread access to digital audio-recording and an increased familiarity with the medium among students, an increase in audio feedback studies has not been seen in SLW.

More recent research on digital audio feedback is found primarily outside the realm of SLW in broader educational technology (e.g., Middleton, 2010) or disciplinary writing contexts. These studies have found audio feedback 10 times more likely to be opened than text feedback by online university students (Lunt & Curran, 2010) and

reported as easier to understand than text by university geography (Rodway-Dyer, Knight, & Dunne, 2011) and business communication undergraduates (Eckhouse & Carroll, 2013). Students have noted issues with digital audio feedback, such as it being too fast or containing harsh or difficult-to-hear comments (Eckhouse & Carroll, 2013). In a study of audio feedback in an online teaching strategies course, Ice, Curtis, Phillips, and Wells (2007) found that audio feedback led to better content retention, student feelings of engagement and greater likelihood of application. However, researchers regularly note variation in results with ESL students and a need for further study with students from other cultures (Ice, Swan, Diaz, Kupczynski, & Swan-Dagen, 2010; Rodway-Dyer et al., 2011). Though early research on audio feedback in SLW and more recent work on audio feedback for university students have shown audio feedback to be promising, more could be done to understand modern audio affordances in providing SLW feedback and how these benefits of audio feedback might translate to the use of more multimodal forms of feedback such as video.

Screencast video feedback

Screencast video feedback research in SLW contexts is even more limited than audio. Screencasting (also known as screen recording or screen capture) is the process of video recording computer screen activity with optional audio voiceover. It is commonly used in creating tutorials such as software instructional videos but also holds possibilities for providing multimodal feedback on student work. While maintaining many of the benefits of audio feedback, screencast feedback has the added provision of visual reference to the student text, which can make connecting comments to the text easier. With the video capture of the entire screen, instructors also have the ability to use the

mouse to signal areas being discussed in the feedback or demonstrate changes, bring up additional source materials such as articles and websites, or show how features in a word processing program might be used.

Much like audio feedback, the promise of screencast feedback is more readily shown in research outside of SLW, though only a few earlier studies will be highlighted here. Such studies have focused primarily on student perceptions of screencast feedback. For instance, Mathieson (2012), approaching screencasting from a transactional distance perspective, found that students preferred having screencast feedback as a supplement to text-only feedback in online statistics and research methodology courses for health sciences. Going further, Moore and Filling (2012) reported that all of the college students in their study preferred video to written feedback as it provided more information and clarity, with some saying it was akin to a conference with regard to personal connection but with the benefit of replayability. Similarly, O'Malley (2011) suggested that screencast feedback overcomes the anxiety students face in face-to-face conferences. Students saw screencast feedback as very specific to their needs, as well as personal and effective (O'Malley, 2011). Silva (2012), who cites the "dearth" of research on screencast feedback in writing courses, found that students who preferred screencast feedback in her writing for engineering majors course appreciated its conversational tone, clarity and focus on global issues. This increased clarity is vital as misunderstanding in feedback is a common problem (Ferris, 1995; Mahfoodh & Pandian, 2011; Sullivan, 1986), especially when reasons for change are not provided (N. Sommers, 1982). While few studies in technology-mediated feedback report on student use patterns, Moore and Filling (2012) noted that the majority of students in their study reported watching the video initially and

then multiple times while they actively revised or took notes. However, additional research is needed to fully understand how students interact with and extend the use of such feedback.

The earliest work on screencast feedback in SLW focused on the use of a specialty tablet-based software. K. Li and Akahori (2008) observed that audio over a video of handwritten corrections was beneficial for Chinese intermediate Japanese language learners in working with Japanese honorifics for letter writing but that stroke-by-stroke playback (video) without audio was beneficial for advanced learners. Thus, learner level may play a role in how modes of feedback benefit learners. K. Li and Akahori (2008) posited that an expertise reversal effect of cognitive load might be at work with audio explanations aiding intermediate but not advanced learners. However, like many screencast feedback studies in SLW, this does not provide insight into how screencast feedback with no written component might be perceived or used by second language writers.

When research for this dissertation began, apart from practice-based articles such as Seror's (2012), which recommends scaffolding video feedback with visual and textual cues for low-level listening students and champions video feedback for its requiring students to make changes on their own rather than passively accept corrections in written form, only two other published SLW feedback studies concerning screencast feedback were found: one published empirical study (Ducate & Arnold, 2012) in a CALICO monograph and one conference paper (Harper, Green, & Fernandez-Toro, 2012). Since then, work on screencast feedback in SLW has expanded but remains somewhat limited.

Most research on screencast feedback in SLW has investigated the use of commercial screencast software, such as TechSmith's limited but free screencasting software Jing. In feedback given with screencasting software, the student paper is recorded on screen. The paper may be accompanied by written comments (Ali, 2016; Harper, Green, & Fernandez-Toro, 2015) or coded feedback (Ducate & Arnold, 2012), or it may be free of written annotation (Elola & Oskoz, 2016). For most instructors, the burden of creating feedback twice, once with written and a second time with screencast or audio commentary, would take too much time to be feasible. Thus, it is of interest to know if giving feedback via screencasting without any additional written commentary (in the screencast or as a separate document) is effective. In SLW screencast feedback research, focus has primarily been on the comments that are given through audio in the student's L1 (Ducate & Arnold, 2012; Harper et al., 2015) or L2 (Elola & Oskoz, 2016; Harper et al., 2015). For the ESL classroom, commentary in the L2 is the norm. However, this is not common in screencast feedback research and there remains the need to consider how such feedback might be perceived and understood by students when it is received in the L2.

Instructors have seen screencast feedback as beneficial and less overwhelming for students with many grammatical issues (Harper et al., 2015) and particularly useful for addressing higher order concerns (Ali, 2016; Ducate & Arnold, 2012). The provision of audio comments in the screencast environment has been suggested to be especially promising for students with dyslexia (Harper et al., 2015) and as a way to appeal to auditory and visual learners (Ali, 2016) while providing all students with the opportunity to practice their listening skills alongside writing (Ali, 2016; Harper et al., 2015). After

overcoming initial apprehensions, students tend to respond very positively to screencast feedback and its audiovisual provisions (Ali, 2016; Elola & Oskoz, 2016).

Studies of screencast feedback in SLW contexts have highlighted many positive aspects of the mode. Screencast feedback has been found to be clear (Ali, 2016; Elola & Oskoz, 2016; Harper et al., 2015), personal (Ali, 2016; Harper et al., 2015), specific (Ali, 2016; Harper et al., 2015), motivating (Ali, 2016), engaging (Harper et al., 2015), encouraging (Ali, 2016), memorable (Harper et al., 2015) and preferred by students (Ducate & Arnold, 2012; Harper et al., 2015). It leads to instructors giving more explanation (Ali, 2016; Ducate & Arnold, 2012; Elola & Oskoz, 2016; Harper et al., 2015) and praise (Ali, 2016; Elola & Oskoz, 2016), while enhancing instructor presence (Harper et al., 2015) and offering affective benefits (Ducate & Arnold, 2012; Harper et al., 2015). Such improvements to feedback overcome many of the issues associated with written feedback while maintaining success in revision. Students tend to successfully revise at the similar or better rates with screencast than with written MS Word feedback (Ducate & Arnold, 2012; Elola & Oskoz, 2016) and improve more than those with written feedback on follow-up writing exams (Ali, 2016).

Despite students having higher rates of success in local revision with screencast feedback and seeing written feedback as comparatively impersonal, rigid, unclear, discouraging, and unactionable, some have still embraced written feedback for its ease of skimming and quick correction over screencast (Elola & Oskoz, 2016). However, some of these perspectives seem to stem more from the study's specific use of screencasting, which only vaguely indicated the area of the paper and number of a given type of error rather than being specific about local feedback. This seems to have failed to fully

capitalize on the visual aspects of the mode. Students experiencing such vague feedback have stated preferences for written feedback when the written feedback offered more precise local correction. However, other uses of screencasting that were more specific and explanatory have led to students citing a preference for such grammar feedback to be provided in screencasts rather than written form (Ali, 2016). This seems in line with the general problems often cited in studies of text feedback such as issues with lack of understanding (e.g., Ferris, 1995; Mahfoodh & Pandian, 2011; Sullivan, 1986), perhaps stemming from a lack of rationale for feedback (N. Sommers, 1982) and feedback being vague (e.g., Busse, 2013; Chanock, 2000; N. Sommers, 1982; Zamel, 1985) and confusing (e.g., Chanock, 2000; Ferris, 1995; I. Lee, 2008; Mahfoodh & Pandian, 2011; N. Sommers, 1982; Sullivan, 1986; Zamel, 1985) and thus not enabling revision (K. Hyland, 2013; N. Sommers, 1982; Sullivan, 1986). Thus, feedback must be made in ways that allow for clarity and specificity regardless of mode. The manner in which this comes about, however, could vary depending on the affordances of a given tool.

As was encountered with electronic text feedback, screencast feedback, as a technology, can present some concerns instructors must be aware of. Students in some studies have cited the need to be online to access videos (Harper et al., 2015), the inability to download video feedback (Ali, 2016) and poor sound quality (Ali, 2016) as particular technical drawbacks. Such issues often have simple solutions. For instance, using a noise-cancelling microphone found on inexpensive headsets or the built-in microphone on many newer laptops can greatly improve the sound quality of recordings. Despite issues, students often maintain positive views towards screencast feedback. While many SLW studies on screencast feedback have been concerned with video length,

often artificially imposing length restrictions (frequently through the use of limited free software), short video length may not be something to aspire to students have requested longer and more detailed videos (Ali, 2016).

While SLW research on screencast feedback is growing, for now it remains limited with existing research not yet offering the understanding ESL instructors need. Studies frequently consider screencast feedback only as a supplement to written feedback (Ali, 2016; Ducate & Arnold, 2012; K. Li & Akahori, 2008) or in uncontrolled use (Harper et al., 2015). Thus, an understanding of standalone screencast feedback apart from written comments for SLW remains vastly under-researched. Further, with the literature often centering on feedback given in the L1 or the language of the feedback not clearly indicated, there is a need for further research concerning screencast feedback provided in the target L2, as is common in ESL writing courses, especially when it contains no written feedback. This case would be of greatest interest to ESL writing courses where the economy of time necessitates streamlined feedback processes and where the heterogeneity of language background of the students in many ESL classes often requires feedback to be in the L2. In response to these needs and the currently limited research on this area, it is a goal of this dissertation project to specifically investigate standalone ESL writing screencast video feedback given in the target L2 (English) and free from written comments.

Managing negative feedback

In investigating technology-mediated feedback such as screencasting, there are a number of concerns from feedback research that could be explored. The issue of managing negative feedback is a frequently cited concern in feedback studies. This

management of negative feedback seems a worthwhile concern given the way negative comments can impact a student's interaction with feedback. Negative feedback can be debilitating (Kasper & Petrello, 1996; Sullivan, 1986) as students often put off revisions (F. Hyland, 1998), get upset and frustrated (Mahfoodh & Pandian, 2011) or completely shut down and ignore feedback (P. Ferguson, 2011; Mahfoodh & Pandian, 2011) or internalize it and drop the course (Young, 2000) when they regard feedback as too negative. Positive comments, on the other hand, can build confidence and help less confident students move forward, but if general positive comments are the only feedback, it can also lead to increased anxiety (Cleary, 2012). Thus, it might be interesting to see if the polarity of feedback shifts with technological mode as polarity seems to have an impact on students.

However, with a need for constructive, perhaps negative, feedback, there is a constant need to manage negative feedback to avoid detrimental effects on students and their feeling a loss of agency in their work. Adult students have reported feeling disrespected, misjudged and even crushed by unmitigated negative comments (Treglia, 2008). It is no surprise then that research has attempted to examine the use of mitigation strategies in feedback. This use of mitigation strategies in managing negative feedback is functionally captured in Yelland's (2011) refinement of Mirador's (2000) move framework for written feedback. Yelland's (2011) updated framework redefines several of Mirador's (2000) moves—sections of text performing particular communicative purposes (Swales, 1990)—as steps—smaller functioning units that work to accomplish a particular move (Kanoksilapatham, 2007; Swales, 1990)—under a broader move of *managing negative comments*. Yelland (2011) found that instructor feedback was

particularly concerned with the management of negative feedback. In SLW, K. Hyland and Hyland (2006) and F. Hyland (2000) identified pairing criticism with praise and hedging comments and to a lesser degree question forms and personal attribution as common strategies employed by instructors for mitigating negative feedback. However, they noted comments concerning grammar and academic concerns, areas which are a common focus for feedback in second language writing contexts, were usually unmitigated (K. Hyland & Hyland, 2006).

Relationship in feedback

This idea of mitigating or managing negative feedback is a facet of the overall management of relationship and power between instructor and learner. For an instructor to ignore the inherent reader-writer relationship and respond as if it did not exist would not only be, as Robertson (1986) put it, "bad manners," but also potentially detrimental to student progress. Elements of relationship and their impact on feedback use extend beyond simply mitigating negative feedback. Feedback can be viewed as a social interaction capable of enhancing or undermining its own effectiveness (F. Hyland & Hyland, 2001). For instance, Kasper and Petrello (1996) illustrated how the tone of feedback can encourage risk-taking, provide an encouraging atmosphere and lower student anxiety. Further, G. Lee and Schallert (2008b) showed that a trusting relationship between instructor and student was fundamental to the effective use of feedback.

The mode in which feedback is presented seems to allow for different aspects of this relational dimension to come through. Technology, with its capability for audio incorporation through digital audio files and screencasting, carries with it new opportunities for developing and maintaining the instructor-learner relationship. While

audio overcomes the anxiety associated with face to face conferences (O'Malley, 2011) and lacks the negative connotation found with written feedback (Nortcliffe & Middleton, 2010), it can also seem overly harsh depending on the tone of voice (Rodway-Dyer et al., 2011). However, its ability to naturally add meaning through emotive and tonal qualities of voice (Nortcliffe & Middleton, 2007, 2010; Rodway-Dyer et al., 2011; Silva, 2012) can close the transactional distance between teacher and student (Mathieson, 2012), be seen as teacher effort by students (K. Hyland, 1990), and lead to a greater sense of social presence (K. Li & Akahori, 2008).

Beyond this, the temporal nature of audio feedback as it references shared experience from class, future events, and real-time interaction with the text enhances the student-teacher relationship (J. Sommers, 2012). Audio feedback has also been considered interactive (K. Hyland, 1990) or dialogic, a quality associated with increased engagement with and application of feedback (Sharmini & Kumar, 2011; Yelland, 2011). Further, it has been suggested that audio feedback does not violate the student text, allowing students to maintain ownership (McAlpine, 1989), an aspect of relational power regulation. The nature of screencasts, in particular, has been seen to affect relational aspects of feedback, potentially leading instructors to be more aware of interpersonal factors in their commentary (Anson, Dannels, Laboy, & Carneiro, 2016; Crook et al., 2012). Anson et al. (2016) reported that students felt more guided and respected with screencast feedback in contrast to feeling criticized when given text feedback. This in turn allowed for better focus on their feedback and revisions. Thus, technology-mediated instructor-generated feedback incorporating voice in the form of audio and screencast

may aid in the development of the student-instructor relationship, offer opportunities to build trust, and ultimately lead to more effective feedback.

This development of relationship has been studied in part, as seen in the aforementioned studies, but with a few exceptions outside of SLW, has typically not been the primary goal of studies to date. While current frameworks, such as Yelland (2011), address aspects of relationship building, these aspects are often peripheral or of emergent nature or focus primarily on the mitigation of negative feedback (e.g., F. Hyland, 2000; K. Hyland & Hyland, 2006). Further, those studies that do address the relational aspect of feedback often do so for traditional written feedback and, with the exception of J. Sommers (2012), those attempting aspects of it for audio or technologically mediated feedback often report largely on vague aspects of perception. Even the typology constructed by J. Sommers (2012) leads to concerns of transferability given its specificity for audio feedback and that it was constructed from the comments of a single instructor. In SLW research in particular, the research is even scarcer, making it clear that interpersonal aspects of feedback have yet to be fully explored in technology-mediated feedback.

What is lacking in the current literature is a systematic investigation of instructorprovided technology-mediated feedback from a perspective grounded in theory that
provides a solid framework for addressing these relational aspects and the associated
linguistic characteristics. Such analysis could help us better see how the mediation of
technology and the mode of delivery impact the student-instructor relationship and how
that relationship is constructed through feedback. Such an understanding might reveal
more about what instructors and students are perceiving to be different with more

multimodal forms of technology-mediated feedback, such as screencast. Further, it could reveal a new side of feedback's overall effectiveness at conveying ideas, preserving student agency, and effecting positive change.

A framework for investigating the interpersonal language of feedback

While the previously mentioned frameworks have given valuable insight into written instructor comments, revision, and their relationships, another framework may better serve as a starting place for analyzing technology-mediated audio and video feedback and the elements of relationship they may develop through language. One such framework is situated in systemic functional linguistics (SFL), a functional view of linguistics that suggests we have a range of linguistic resources we use to make meaning in various contexts, and we can accomplish similar linguistic goals through a variety of linguistic realizations. It is further suggested in SFL that there are three primary functions of language: textual, which provides cohesion and coherence; ideational, which provides the content or the "what"; and interpersonal, which addresses the "who" of an utterance or elements of relationship (Halliday & Matthiessen, 2014). A framework with particular focus on the interpersonal metafunction, which seeks to capture and explain the functional language choices related to the enactment of social relationship (Halliday & Matthiessen, 2014), could provide the insight needed to unravel the linguistic elements of relationship in technology-mediated feedback.

One framework well suited for such purposes is that of *APPRAISAL* as framed in Martin and White (2005). This intricate framework focuses on aspects of the interpersonal is functional in nature, but accounts for the lexicogrammtical realizations of such functions. The APPRAISAL framework is "an approach to exploring, describing and

explaining the way language is used to evaluate, to adopt stances, to construct textual personas and to manage interpersonal positionings and relationships," (White, 2012c, p. para. 1). Thus, the APPRAISAL framework has the potential to capture many aspects of the language used in written and spoken feedback as it specifically reflects evaluative language and interpersonal positioning. Drawing on SFL, the APPRAISAL framework works with continuums or gradients rather than dichotomies and captures functional language use across three dimensions: ATTITUDE, ENGAGEMENT and GRADUATION.

The dimension of ATTITUDE is further broken down into subtypes: AFFECT, the emotional component showing evaluation through personal emotional disposition; judgment, the ethical component dealing with normative assessments or people and behavior; and APPRECIATION, the aesthetic component assessing form, impact or significance of things (Martin & White, 2005; White, 2012a). In this way, an analysis of ATTITUDE can give insight into the emotional elements that come through in a text whether they be written or spoken by investigating AFFECT. The system of ATTITUDE can allow linguistic realizations of the evaluation of people or behaviors, judgment, to be separated from evaluations of things, APPRECIATION. The attitudinal includes analysis of the targets or subject of such evaluations as well (White, 2012a). Thus, we might find this lexicogrammatical analysis useful in explaining what instructors target in evaluating student work and how their attitudes come across. Such an analysis of targets can help us identify how the evaluation of students, their writing, and possible suggestions are realized through the language of feedback. Since realizations of ATTITUDE can also be analyzed for voice-specific features such as tone (Eggins & Slade, 1997), the framework may be used to analyze the added layers of meaning conveyed in audio comments.

Additionally, the responsibility for such evaluation can be investigated with the APPRAISAL framework through the system of ENGAGEMENT, potentially revealing the power distance and agency embedded in the feedback. An analysis of ENGAGEMENT reveals the dialogistic position or the position of the author's voice in relation to other voices. This intertextual positioning relates to alignment and the reader-writer relationship (Martin & White, 2005). The system of ENGAGEMENT is broken down into those linguistic choices that contract the space for dialogue, cutting off other viewpoints as the author proclaims or disclaims, or expand such space by entertaining other positions or *attributing* knowledge to others (Martin & White, 2005). An analysis of ENGAGEMENT allows us to see an author's positioning, whether it is one of authority, as is the case when contracting resources are used, or one of many possible perspectives, as is the case when expansive resources are used. In the case of feedback, such an analysis would help us see the position of an instructor as realized through linguistic choices in feedback. We might consider whether instructors change such position or stance when shifting modes of feedback.

Further aspects of stance and positioning can be understood through an analysis of *GRADUATION* under the APPRAISAL framework. GRADUATION, the strength (*force*) and preciseness (*focus*) with which the author positions him or herself (Martin & White, 2005) accounts for elements of stance and modality often discussed in feedback and academic writing studies. These aspects may unveil more about how the instructor-student relationship is realized through language and give insight into how responsibility, power, and status are expressed through lexicogrammatical choices. In the analysis of feedback, GRADUATION would aid in gauging how specific and how strong comments

might be. When combined with APPRECIATION, GRADUATION can show the degree to which feedback is mitigated. The addition of ENGAGEMENT would bring to light indications of position and power which may aid in better understanding how students are empowered. Such analysis of feedback may reveal how different modes of feedback seem to convey responsibility and how the language used in such feedback conveys choice and authority.

Learner training with technology-mediated feedback

Along with the need for new analysis of feedback, such as that that could be realized with the APPRAISAL framework above, as feedback migrates to new technology-enhanced systems comes the need for developing effective learner training. As with any tool, feedback, especially technology-mediated feedback, can be most effective when accompanied by structured learner training. Learner training is defined by Hubbard (2013) "as a process aimed at the construction of a knowledge and skill base that enables language learners to use technology more efficiently and effectively in support of language learning objectives than they would in absence of such training" (p. 164). Learner training can effectively address issues of social support and computer anxiety in older adults (Poynton, 2005) and also benefit "digital natives" (Prensky, 2001a, 2001b) who often lack the skills to harness digital technology for educational purposes (Ng, 2012).

Since different skills may be needed when using different modes of feedback, some learner training might target the challenges and affordances of that mode of feedback. Learner training would need to address fundamental concerns such as how to access the feedback and how to get help with it, but learner training could also go further

into how to interpret, apply, and learn from such feedback. Such "pedagogical training" (Reinders & Hubbard, 2014) could assist learners in extending their use of feedback and gaining skills applicable in future language-learning contexts. However, developing learner training for using technology-mediated feedback, such as screencast feedback, in SLW requires that we first understand how students interact with and use the technology and the feedback in context so that successful patterns of use, potential challenges and key successes can be identified and crafted into effective training. Thus, further study of student use, and to a degree, perceptions of technology-mediated, SLW feedback is needed before effective learner trainings can be fully developed around these latter aspects.

Understanding revision with technology-mediated feedback

An understanding of how students who effectively apply or learn from technology-mediated feedback actually do so needs to be developed. Although some information may be gleaned from the analysis of the feedback itself or the resultant revisions, only by investigating how these learners interact with the feedback and by hearing from the students can we understand the range of skills students have, strategies that lead to success and those that are less successful. While self-reports in the form of surveys may be one of the easiest ways to investigate this aspect, in isolation, these often fail to capture the whole picture with most use information coming down to the number of times a student watched a video (e.g., Ducate & Arnold, 2012). More could be learned by augmenting such data with recorded observations as has been done in composing process studies (e.g., Hamel & Séror, 2016; Hamel, Séror, & Dion, 2015; Phinney & Khouri, 1993; Séror, 2013). Using ethnographic methods, such as observation and

interviewing, with new technology could allow for the degree of observation and understanding needed to decipher how students effectively or ineffectively work with different modes of feedback, providing information necessary for later development of learner training. Using combinations of recorded, screencast, and in-person observations and interviews, we may see and understand what students are doing with feedback and how they are using it. This could provide understanding of how a learner's revision process changes, and subsequently how learner training may need to change, with varied modes of feedback in SLW. Such analysis may also reveal the strengths and weaknesses of different feedback modes, allowing them to be introduced to instructors and students in honest ways. By identifying successful revision behaviors and potential issues or challenges with the feedback, instructors might find opportunities to modify their use of existing and new technologies and plan appropriate student training.

Connecting literature with the current project

With the many choices instructors have for not only selecting technology for feedback but also in employing them, an understanding of how technology shapes feedback and an understanding of how that feedback can be used effectively can allow instructors to make more informed choices in the selection and use of technology tools for SLW feedback. However, while studies investigating the use of such technologies can be found in other disciplines, the small number of such empirical studies in SLW feedback, especially with utility for ESL classes, suggests a need for further research in this context. With the potential of screencasting and the growing familiarity of video, screencast feedback, especially in standalone form free from written commentary and given in the L2, is a key area for research. With so many technological choices and an

increased pressure on instructors to provide meaningful, timely and useful feedback, it is critical that we understand how even ubiquitous technology, such as MS Word comments and track changes, facilitates meaningful feedback for SLW learners. To not do so might be to suggest that technology does not affect the way we construct, perceive and use feedback in SLW, or that we at least choose to ignore these effects. Given that technology can allow us to provide feedback that draws on different skills such as reading or listening, it is all the more important to understand these choices in the realm of SLW and ESL specifically, as broader communication modes in such contexts concern not only by preference but also proficiency.

While research has begun this effort with a focus on student perceptions and draft comparison, it has often captured student perspectives from a single time point, often with limited explanation. Further, our understanding of how students use and interact with different modes of feedback in ESL contexts is even more limited, leaving little to build learner trainings or adapt existing practices. Apart from this, the source of teacher and student perceived differences between screencast and text feedback has not been fully understood. With student perspectives and studies beyond SLW suggesting that there may be some interpersonal aspect that varies with mode, there is a need to identify and use a theoretically grounded framework, such as APPRAISAL, to investigate if such aspects can be revealed by systematically looking at the feedback itself. This dissertation, over the course of three interconnected papers, builds our knowledge of MS Word feedback and standalone screencast feedback given in the L2 in ESL writing by investigating student use and perceptions of both modes, proposing a framework for the study of the interpersonal across modes of feedback and demonstrating, through that

framework, that differences in the interpersonal aspects of feedback are clear, consistent and trackable through the language of feedback across modes.

Dissertation overview

The dissertation consists of three interrelated papers framed by this introduction and a conclusion. Each paper stands alone but maintains a focus on screencast video and text feedback in ESL and maintains a similar structure for how such feedback was given and collected. Each paper considers the two modes of feedback in a crossover design across four assignments and two groups of students. For each assignment, half of the students received video (screencast videos hosted online) feedback and the other half text (MS Word comments in a document). At the halfway point (after the second writing assignment) feedback modes switched for each group as seen Table 1.1. All feedback in the dissertation was provided for the purpose of revision to students enrolled in university ESL writing courses where students were expected to submit multiple drafts. Papers 1 and 2 focus on feedback given by the researcher in another instructor's intermediate ESL writing course in an intensive English program, whereas Paper 3 focuses on the feedback of three instructors, each teaching at least one section of an undergraduate ESL paragraph or essay writing course. Data for all three studies were collected under IRB approval (see Appendix).

Table 1.1. Feedback types by student group and assignment

Group	Tasks & Feedback Type				
	1	2	3	4	
A	Video	Video	Text	Text	
В	Text	Text	Video	Video	

Paper 1 in this dissertation approaches the impact of mode from the side of feedback application and the student perspective. It focuses on what happens when students interact with the feedback. What do they think about the feedback, and what do they do with it? In approaching this aspect of the feedback, the study employs surveys and interviews to get at the student perspective. It also uses draft comparisons to look at the outcomes of student revisions. Where it goes beyond other SLW feedback studies is in its use of recorded observations of student interactions with the feedback. By employing observation, it is able to further substantiate the student perspectives and understand better how they interact with the feedback. Through diary study-like surveys and a final interview, both with open ended-questions about both the text and the video feedback, the study offers insights not only into the novel mode of screencasting but also offers insights into the near ubiquitous mode of MS Word comments.

In practicing key word analysis for an introduction to qualitative methods course using the video feedback from Paper 1, I noticed a surprisingly high use of modals. Inspired by TSLL 2014's functional perspectives focus, I decided to investigate the feedback further using a functional perspective. Because of the noticing of modals, and their role in the interpersonal aspects of language, I sought to uncover the interpersonal aspects of the language in the two modes of feedback to see if the differences I noted extended beyond modals into some kind of functional difference in the feedback. Growing out of this initial analysis, further work settled into the framework of APPRAISAL, which centers on the language of evaluation with an interpersonal function.

Paper 2 presents an argument for using the APPRAISAL framework for studying multimodal feedback and for making cross-mode comparisons. This paper uses a subset

of the feedback in Paper 1 in a demonstrative example that adapts the APPRAISAL framework for use in the context of feedback analysis and applies a simplified version of this adapted APPRAISAL framework in a comparison of the text and screencast feedback. It arrives at a notion of the utility of the framework for future studies of technology-mediated feedback, even across very different modes, and present results that suggest video and text modes differ with regard to the interpersonal aspects of language seen in their use of APPRAISAL resources.

The promising results of paper 2 prompted the question of whether the trends seen in the data would hold true over a larger selection of feedback, or for feedback provided in real classes by real instructors over the course of a semester on real assignments. In these contexts, assignments vary, instructors vary and the type of feedback they provide over the course of the semester and their situations may also vary. Would there still be notable interpersonal differences between modes of feedback that could be shown through the APPRAISAL frame in such ecologically valid conditions?

In Paper 3, the same crossover design for feedback provision from Paper 1 was employed. However, instead of four short practice assignments delivered over the span of a month and a half, the assignment in Paper 3 consisted of the major course assignments in a paragraph-writing and two essay-writing courses. Rather than being given by the researcher, the feedback is given by the instructors, two teaching assistants and an experienced instructor, including two native English speakers and one native speaker of another language. Here in the more complex environment the feedback revealed more. Paper 3 subsequently expands on the adaptation of the APPRAISAL framework seen in Paper 2 to allow for a more detailed and nuanced understanding of feedback. This more

intricate coding scheme holds promise for future feedback research and further refinement.

This progression of papers first expands on what we know of the student side of the impact of feedback mode through a focus on student use and perceptions. It then reflects on how mode seems to impact the creation of feedback through a study of the language of the resulting feedback. Studying the language of feedback sits somewhere as a bridge between instructor and student and offers insight into how mode is impacting the language of the feedback itself and perhaps subsequently by doing so, is also impacting students and the relational aspect of feedback.

CHAPTER 2. STUDENT PERCEPTIONS AND USE OF TECHNOLOGY-MEDIATED TEXT AND SCREENCAST FEEDBACK IN ESL WRITING

A paper to be submitted to Computers and Composition

Kelly J. Cunningham

Abstract

In an effort to expand understanding of the impact of technology choices in giving feedback, this exploratory study investigates the efficacy of screencast and text feedback given to 12 students over four assignments in an intermediate ESL writing course.

Employing a series of six surveys in conjunction with screencast observations, draft comparisons, and a small group interview, it provides insight into student perceptions and use of technology-mediated screencast and text feedback. Results suggest that while students found utility in both screencast and text feedback, screencast video feedback was preferred for its efficiency, clarity, ease of use and heightened understanding.

Observations supported these student assertions as students working with screencast feedback took less time to revise, remained in the target language and did not need to ask clarification questions, which was not the case with the text feedback. Successful changes were made at similar rates for both types of feedback with screencast resulting in a slightly, but not significantly, higher average percentage of successful global changes.

Giving feedback on student work is a common yet complicated practice. The myriad of options and affordances offered by technology leaves instructors wondering which tools to adopt for their specific contexts. For second language writing (SLW) instructors, using different modes offered by technology also means asking students to

use different language skills such as reading or listening (in which they may have varying proficiencies) to access feedback. Feedback becomes even more complex as instructors must consider the modes and affordances of the technology in both their creation of the feedback and in their students' use of the feedback. While research has begun to provide support for choosing technology for feedback in SLW in terms of automated writing evaluation (e.g. J. Li, Link, & Hegelheimer, 2015) and peer feedback (e.g. Guardado & Shi, 2007), the issue of technology-mediated instructor feedback remains an underexplored realm in SLW. With the expanding pervasiveness of video in modern society and increased access to screen recording, SLW instructors have ever-growing access to video modes for feedback, yet little research to inform their choices. Further, with video potentially requiring substantial investment from institutions through hosting solutions but becoming more in reach with high efficiency video encoding (HEVC/H.265), a research-informed perspective is needed to allow for widespread change in feedback practices. The present study begins to expand SLW feedback research and fill this void through an investigation focused on student perceptions and use of screencast and digital text feedback in ESL writing.

Technology and feedback

The use and impact of technology in SLW feedback continues to be an underexplored area. Stapleton and Radia (2010) stated that technological advances add a new dimension to the writing process that could significantly impact the way instructors provide feedback. Indeed, technology offers ways to go beyond text comments delivered electronically to audio and video feedback. With 67% of millennials—a target population for many SLW programs—believing that "they can find a YouTube video on anything they want to learn" (Morgensen, 2015, p. 4), video feedback, in particular, may offer a

way to connect with students through a familiar medium. Studies outside of SLW have shown attention to audiovisual modes of feedback, yet research on similar technology-mediated feedback provided by a SLW instructor remains comparably limited. However, given that SLW students come to the classroom with varying proficiencies, experiences and comfort levels in different language and technology-related skills, the mode of communication (e.g. written or spoken) used in SLW feedback may lead students to respond in different ways. As a starting point for understanding these modes, current SLW research on instructor electronic text comments (such as MS Word inserted comments and tracked changes) and video feedback is explored below. Given the limited literature on video SLW feedback, video is explored through work from composition studies, disciplinary writing and educational technology in addition to SLW research to provide a foundation for understanding technology-mediated feedback.

Electronic text feedback comments in SLW

Most text-based electronic feedback in SLW is delivered through simple asynchronous comments on student papers, such as those enabled by the review features of MS Word. The review features of MS Word (e.g. track changes and inserted comments) have been available since at least the 1997 version. Rodina (2008) advocated for using track changes to give feedback on SLW as an easy transition to a paperless classroom that allowed for faster feedback and provided unlimited space when compared to writing on hardcopies. Ferris (2012) advised using MS Word comments, given their increased legibility over written feedback, for identifying issues and providing rules. Tafazoli et al. (2014), noting positive student perceptions of the digital writing environment and feedback, claimed that underlining and correct form feedback given in MS Word on digital texts led to greater grammatical accuracy amongst Iranian English

for specific purposes (ESP) writing students than paper-based corrective feedback on handwritten hard copies. In an observational study of MS Word comments and track changes feedback on ESL compositions in developmental and first year university writing courses in the US, Ene and Upton (2014) noted that electronic feedback was similar to handwritten commentary. Since it led to successful global and local revision, the researchers concluded that it could be an effective alternative to paper-based feedback.

Despite these encouraging findings, digital text feedback can suffer from the same student affect issues as handwritten feedback (Ferris, 2012). For instance, when feedback is presented only as red corrections without praise, students can find the feedback aggressive and demotivating (Byrne, 2007), a common problem with written feedback (e.g. Treglia, 2008).

In considering text feedback, it is important to understand student perceptions of the technology and issues they may encounter when working with the feedback, even when the medium, such as MS Word or Google Docs, seems familiar and user friendly. Although online access to their writing through Google Docs has been valued by some students (Kim, 2010), Aubrey (2014) reported that in addition to seeing the need for an added email address as a burden, a lack of internet access at home prevented some students in a university-level English for academic purposes course from accessing their work. Students also found the accompanying feedback comments confusing, but had otherwise positive reactions to the platform. Thus, some elements, such as online access to documents, may be seen as both a benefit and a challenge for students in different circumstances.

Despite studies such as this highlighting perhaps unexpected consequences of electronic feedback, apart from student self-reports (e.g. Aubrey, 2014; Séror, 2011) and draft comparisons, few studies have considered how electronic text feedback as a mode might impact student use of and interaction with feedback in revision. Even with a familiar mode like text, there is still a need to understand how students interact with the technology to see where their challenges arise. This could reveal why or where students have difficulty applying feedback and offer insights for learner training for and refinement of instructor feedback. However, the majority of studies of text feedback treat it instead as a commonplace practice free of technological difficulty and a control against which less frequently used modes such as video feedback (e.g. Ducate & Arnold, 2012; Thomas et al., 2017) can be compared.

Video feedback

One modern version of video is screencasting, the process of recording a digital display with voiceover. It is commonly used in creating tutorials but also holds possibilities for providing multimodal feedback. Screencast feedback provides recorded spoken comments on student work with the added provision of a video of the paper on the screen where the instructor can gesture, highlight and show areas of the work being spoken about. The affordances and technological demands of the medium call for contextually specific studies of this mode. Currently, most research on screencast feedback has occurred outside of SLW contexts where second language reading and listening skills do not come into play.

Similar to audio feedback, screencast feedback in composition and disciplinary writing contexts has been seen to emphasize the teacher student relationship (Anson et al., 2016) while providing conversational (Anson et al., 2016; Warnock, 2008), positive

(Warnock, 2008), personal (Anson et al., 2016; Grigoryan, 2017; J. Sommers, 2013), explanatory (Thompson & Lee, 2012) feedback. Students have reported being able to easily connect comments to the text (J. Sommers, 2013; Thompson & Lee, 2012; Warnock, 2008). However, they have also reported feeling awkward listening to the comments and that hearing harsh comments could be difficult (J. Sommers, 2013).

Student perception is a common focus of these studies and the results typically show positive perceptions of screencast feedback. For instance, Mathieson (2012) found that health sciences students preferred having screencast as a supplement to text feedback. Unfortunately, by using only supplemental screencasts, it is unknown how students might perceive screencasts that replace rather than augment written feedback. Silva (2012) found student reactions to screencast feedback in her writing for engineering majors course were related to the purpose of revision and feedback. Those who preferred video highlighted its conversational tone, clarity and focus on global issues while those preferring text (MS Word comments) appreciated the easy revision of surface features, leading Silva (2012) to note that a combination of text and screencast feedback may be ideal.

There is comparably little research on the use of screencast feedback in SLW. A few practitioner resource articles exist, such as Stannard's (2006, 2007) or Seror's (2012), which recommends scaffolding video feedback with visual and textual cues for low level listening students and champions video feedback for requiring students to make changes on their own rather than passively accept corrections in written form. However, until recently, published empirical studies on screencast feedback in SLW have been scarce.

In one of the earliest SLW screencast feedback studies, K. Li and Akahori (2008) found that audio over handwritten corrections (audio only) was beneficial for low-level Japanese language learners and that an audio-free screencast of comments being handwritten on a tablet (video only) was beneficial for high-level learners. These results suggest that different affordances may be appropriate for different learner levels.

More recent studies of screencast feedback tend to employ commercial screencasting software such as TechSmith's free but limited program Jing. These studies tend to compare screencast with digital text feedback, such as MS Word comments. In terms of student performance between the two modes, little difference has been seen. For instance, Ducate and Arnold (2012) compared indirect corrective feedback (no correct forms given) provided by Microsoft Word comments with those in short five minute screencasts containing written error codes in a university-level German foreign language class. They found only a slightly higher student success rate in revising with screencast feedback. However, give that written feedback was also present in the screencast and the feedback was provided in the L1, it is unknown if results would hold in cases where screencast feedback stood alone or when feedback was provided in the L2. One study that did consider feedback given in the target L2 was Ali's (2016) comparison of local text feedback with text supplemented by global screencasts feedback in an Egyptian university EFL writing course. The screencast group outperformed the control overall and on global concerns on a writing posttest. Given that the screencasts supplemented written feedback with comments on these areas, it is hard to say whether gains were related to the feedback mode. In one of the only studies to employ feedback given in the L2 and to not supplement screencasts with written feedback, Elola and Oskoz (2016) found little

difference between the rates at which students applied text (MS Word comments and error codes) and screencast feedback in their case study of four American undergraduates in an advanced Spanish foreign-language writing class. However, students were more successful at addressing linguistic errors with the screencast feedback. These results seem to suggest that screencast feedback is at least as effect for revision as text feedback.

Alongside performance, SLW screencast feedback studies have reported on perceptions of the mode. However, as discussed above, the screencasts are usually only supplements to text feedback, frequently with comments given in the L1. Similar to research beyond SLW contexts, student perceptions are often positive. Many of these perceptions seem to echo reports from earlier research on audio feedback with screencast being seen as clearer, more specific and faster for revision than text feedback (Ali, 2016; Ducate & Arnold, 2012). Students have reported screencast feedback to be personal, constructive and engaging (Ali, 2016) as well as a welcome opportunity to practice their listening skills when feedback is given in the L2 (Ali, 2016; Elola & Oskoz, 2016).

Positive responses to screencast feedback were also reported by tutors and students in Harper, Green, and Fernandex-Toro's (2015) investigation in online university beginner to upper intermediate Spanish and German foreign language courses. Screencasts were found to be clear, memorable and capable of increasing affective engagement as they enhanced the sense of tutor presence and conveyed the tone of the feedback.

Unfortunately, the limited research on standalone screencast feedback and feedback provided in the L2 leaves many instructors without comparable representations of their work in the literature. Giving feedback in the L2 is often the only option for ESL instructors who teach students from diverse language backgrounds. Further, given the

time demands of feedback, it is likely that many instructors would be reluctant to add additional tasks such as supplemental screencasts to their workload. Thus, the viability of standalone screencasts may be critical to its adoption. Standalone screencasts in the L2 may have the potential to replace written feedback, but our current understanding of screencast modes remains limited.

Student interaction with technology-mediated feedback

Understanding how students interact with technology-mediated modes of feedback could lend further insight to their perceptions and offer insights for crafting better feedback and learner training. Such understandings thus far have largely been limited to student self-reports. J. Sommers (1989) reported that about half the composition students in a study of audio feedback listened more than once and took notes. Similar behaviors have been seen with audio feedback in disciplinary writing contexts as students listened multiple times and made changes on the draft or took notes (Eckhouse & Carroll, 2013; Moore & Filling, 2012) with some reporting reviewing the audio for other classes (Eckhouse & Carroll, 2013). With screencasts, students likewise report watching the videos multiple times (Anson, forthcoming) shortly after receiving them (J. Sommers, 2013). SLW research on screencast feedback has offered the same type of self-reported student data. For instance, Ducate and Arnold (2012) reported that most students watched the video two to three times while revising, though some watched it four or more times. Apart from these self-reported data, little is known about how students interact with the feedback.

While such self-reports are helpful, they are limited in their ability to help instructors understand what is happening while students are revising. As with many feedback studies, it is unknown if changes are actually prompted by the feedback.

Further, problems students encounter in working with feedback and their help-seeking behaviors may go unreported and unnoticed. More could be learned by augmenting self-reported data with recorded observations as has been seen in composing process studies (e.g. Hamel & Séror, 2016; Hamel et al., 2015; Phinney & Khouri, 1993; Séror, 2013). Observing student behavior while working with feedback during revision could aid in understanding how students interact with and apply suggestions. Further, by identifying successful revision behaviors and potential issues or challenges with the feedback, instructors might find opportunities to modify their use of existing and new technologies and plan appropriate student training.

While previous research has offered some insights into student perceptions and use of screencast feedback, situations where the feedback is given in the target language and when the feedback does not include written comments or codes remain underexplored. With existing studies focusing on college-level foreign language contexts, published empirical studies on the use of screencast feedback in ESL writing are rare. Combinations of self-reported and observed data could shed light on these areas. Understanding these practical considerations for a familiar mode like text feedback alongside similar understandings of screencast feedback could offer SLW instructors a basis for deciding how to employ technology-mediated feedback in their own classes.

The present study

The aim of the present study is to add to our understanding of student perceptions and use of formative text and screencast feedback to provide instructors a comparative perspective to inform their own technology choices. To establish a foundation for this comparative perspective, the study first considers the similarity of the comments in the video and text feedback so that the primary goals of the study may be better understood.

The goals of the study focus on the following in an intermediate level ESL writing context:

How do student perceptions of and preferences for text (MS Word comment) and video (screencast) feedback compare?

How do students make use of (apply & interact with) the text and video feedback?

Methodology

This study used a pre-experimental (Creswell, 2013) convergent (Creswell & Plano Clark, 2007) within-group exploratory design with purposeful sampling (Mackey & Gass, 2005) and triangulation. It drew from a local intermediate ESL writing course taught by a cooperating instructor in which the research design fit unobtrusively. A crossover design was used to account for order and writing topics.

Participants

The 12 participants in this study were students in the same intermediate ESL writing class in an intensive English program at a large Midwestern university in the United States. The class was chosen based on the willingness of the instructor; the proximity, which allowed the researcher to be present for revision sessions; the ease of study integration with course objectives and the technological familiarity of the students through prior use in this class.

As part of this course, students met in a computer lab two out of their five class meetings per week. During these classes, students worked on computers identical to those used during the study, minimizing the computer platform as a potential intervening variable. In addition, students had been submitting assignments through the course management system (CMS) all semester and participating in in-class writing and revising tasks. Thus, the basic tasks involved in the study were not new. All but one of the

students completed an introductory questionnaire on which the majority of participants indicated that viewing Word documents with comments on their computers was easy with only three saying it was neither difficult nor easy with the same breakdown of responses on the ease of viewing short videos. Thus, it is assumed that the participants in this study had sufficient experience and skill with the technologies involved to fully participate in this study.

All of the participants indicated that they had received written comments in a file such as a MS Word document as feedback on their L2 writing before and seven (64%) indicated the same for their L1 writing. Only one student indicated having received screencast video feedback previously and indicated receiving it on both L1 and L2 writing. Reported native languages of the participants included Chinese (3), Arabic (3), Korean (1), Japanese (1), Portuguese (1), Thai (1) and Uyghur (1). The range of previous study in English amongst participants varied from less than a year to more than 12. Measures of listening and reading proficiency were unavailable and may have been an intervening variable in this study since screencast feedback has a considerable audio component and text feedback a reading component. However, of those self-reporting (9), all were concurrently taking an intermediate or higher speaking and listening class. All participants were also in intermediate level reading and grammar classes, with the exception of one who was in a low intermediate reading class. These factors may have contributed to participant use and perception of the different types of feedback, but they were not fully analyzed in the study.

In addition to the student participants, the researcher, a native speaker of English who created the feedback files, was also a participant. The researcher had not previously

provided screencast feedback or used Snagit, the screencasting program used in this study, but had created tutorials using similar software. The researcher also had extensive experience providing various forms of feedback on ESL writing at and above this level using Microsoft Word. Thus, both tools were familiar technologies for the researcher. The researcher attempted to provide similar quality feedback regardless of mode.

While the present design cannot capture the intricate complexities of a fully contextualized naturalistic investigation that considers instructor-student relationships and instruction, the feedback in the study was given by the researcher rather than the instructor for several reasons. Although researcher-as-instructor is common in technology-mediated feedback studies (e.g. Batt & Wilson, 2008; Byrne, 2007; Chiu & Savignon, 2006; Ducate & Arnold, 2012; Eckhouse & Carroll, 2013; Gaskell & Cobb, 2004), this option was not pursued because the researcher was not teaching an appropriate ESL writing class. Training the cooperating instructor to give screencast feedback for this exploratory study would have added an undesirable layer of complexity and uncertainty through training variables. Having the researcher, who had no prior interaction with the students, provide feedback in fact offered several advantages. First, it created a degree of newness in both modes of feedback as each was given by someone other than the instructor, adding to comparability. The increase in novelty from the researcher's outsider status may have increased student attention to the tasks and helped maintain student participation rates. Second, receiving feedback from the researcher freed students from feeling that they might offend their instructor by giving negative opinions. This provided a context where students could give honest responses, knowing these would not impact other aspects of the course. Thus, the researcher-as-feedback-giver in

an otherwise authentic class taught by a cooperating instructor, rather than in a standalone experiment, allowed for elements of research control without fully sacrificing ecological validity.

Materials

Tasks

As part of their writing class, participants completed weekly in-class (50 min.) practice TOEFL essays of approximate 200-300 words in a computer lab. The writing prompts, selected by the course instructor, were unique week to week and asked for similar length non-documented (no research or referencing) essays. The present study focused on four of these essays (see appendix for specific prompts), occurring in the second half of the semester. Revision of these four essays using feedback accounted for the other major portion of the student task.

Feedback

In giving feedback, regardless of mode, the draft was quickly skimmed and then commented on linearly with a mix of global and local comments from start to finish with final comments often reviewing key points made elsewhere in the feedback. The majority of comments were given alongside the student text and indicated the specific part of the text being discussed. Global comments focused largely on structural components, such as including a clear thesis or conclusion, and specific suggestions for level of detail, such as asking for an example at a certain point in the text. Local feedback concerned sentence level and lower concerns such as verb tense, word form or word choice. A mixture of explanations, examples and direct corrections was intentionally employed in addressing these concerns and praise was also offered throughout. All feedback was provided in prose, as seen in Table 2.1, not coded abbreviations or color coding.

Table 2.1. Example of feedback on similar concerns across modes

Text Feedback (comment bubble)	Screencast Feedback (transcript)
Referenced student text: "a succeed life"	We have, "hard work has always been the
Success- noun (usually without an article)	most important element for people's
Succeed- verb	succeed." Succeed is the verb, success is
Successful-adj	the noun Since you have the possessive
Successfully-adv	here, I would expect this to say "success,"
So in this sentence, you could say	"for people's success" or "for people, (no
Who have	S), to succeed," either one of those would
A successful life	be okay.
Succeeded in life	
Success in life	

Text feedback

Text feedback consisted of Microsoft *Word* files of the student work with comments and changes using the insert comments and track changes features of the program as well as end comments. Students received the feedback file as a downloadable document in the course management system.

Video (screencast) fseedback

Screencast video feedback was created using TechSmith's Snagit to record screen video and audio commentary. During skimming, prior to recording, the researcher inserted small (1 to 2 space) highlighting near areas of interest. The aim of the highlighting was to remind the researcher of areas to speak about during the recording, not to indicate errors. This was stated in the opening of each video. Not all comments had highlighting indicators.

The researcher then used Snagit to record only the student text on the screen with voiceover and mouse movements. The researcher used the mouse to indicate the portion of the text being spoken about and used referencing language such as 'here' to speak about the work. Sometimes sentences were read aloud to facilitate feedback. Video

feedback was distributed as a link to an online playable version of the video. The link was accompanied by a note indicating that the feedback was a video with audio and that students would benefit from using headphones and having the volume on when accessing the file.

Data collection instruments

Surveys

Three types of online student surveys were used: an introductory biodata survey; a reflective follow-up survey completed immediately after each revision with questions on use of feedback, helpfulness and ease of understanding; and a final survey given after task four that asked participants to compare the two modes of feedback. Each included both closed and open-ended items.

Screencast revisions

Screencasts of student revision behavior with both modes of feedback were recorded during class time using Camtasia for Mac. These observational recordings included video of the screen, audio recordings of computer sound and audio recordings of the surroundings. This last feature provided a record of student interactions with the instructor, peers and the researcher.

Interviews

Following completion of the final task, all participating students were invited to interview; three volunteered. The semi-structured group interview allowed students to elaborate on their perceptions and use of the feedback and the researcher to provide a member check.

Procedures

This pre-experimental mixed-methods exploratory study (Mackey & Gass, 2005) used a crossover design to account for order and writing topics. Participants were divided into two striated groups, A and B, with A receiving video feedback on tasks 1 and 2 and text feedback on tasks 3 and 4 and B receiving video feedback on tasks 3 and 4 and text feedback on tasks 1 and 2 as seen in Table 2.2. Tasks were paired to allow students both an initial and second exposure to the feedback type, diminishing the novelty effect to generate more naturalistic revision behavior and overcome initial exposure issues.

Table 2.2. Feedback types by group and task

Group	Tasks & Feedback Type					
	1 2 3 4					
A	Video	Video	Text	Text		
В	Text	Text	Video	Video		

A visual overview of the procedure is provided in Table 2.1. For each of the four tasks, the course instructor sent the student writing to the researcher who provided feedback files and links to private screencast feedback on screencast.com according to the group and methods indicated above. These files and links were then distributed to the students for revision by the instructor. Following each revision, students completed the follow-up survey about the feedback they received. For tasks 2 and 4, the in-class revision session was screen recorded using Camtasia for Mac to observe student revision behavior and use of feedback. The second and fourth tasks were chosen to capture more natural revision behavior.

Following completion of the fourth task, students took the final survey, which

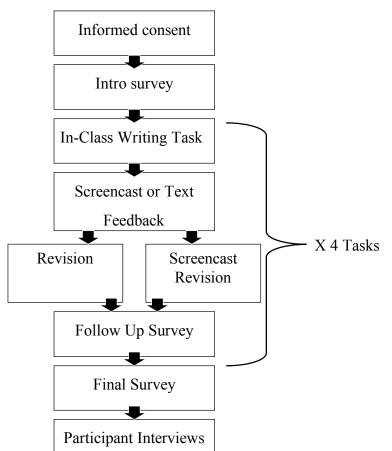


Figure 2.1. Procedure overview

asked them about their impressions of the two feedback types. Finally, a semi-structured group interview was conducted.

In addition, the researcher kept track of the number of views per video.

Data collected

The data collected consisted of drafts, revisions, feedback files, and follow up survey responses for each of the

four writing tasks as well as screencast revision behavior of tasks 2 and 4, introductory and final survey data and student interviews. This included 46 drafts, 23 text feedback files, 23 screencast video feedback files ranging from 4.5 to 11.5 minutes in length totaling 175 minutes altogether, a total of 43 revised drafts (21 from text feedback, 22 from video feedback) and after trimming, just under 13 hours of video spread over 20 screencast observations. One revision and screencast were discarded after the screencast revealed an earlier version had been submitted to the researcher for feedback and the student used modified copy and pasted sections from a previously written essay in his revision submission. Since not all students completed all surveys, follow-up surveys

consisted of 17 and 21 responses to text and video respectively. The student drafts and feedback files did not contain student names in the body of the documents. All study data were collected with informed consent under IRB approval and coded to individual study-specific identification numbers to preserve participant confidentiality.

Analysis

Each type of data was analyzed to respond to one or more of the research questions. To evaluate student perceptions of feedback (research question 1), responses to closed survey questions were tallied. The open-ended survey questions and interview responses were coded with descriptive (text or video feedback) and in vivo coding (Saldana, 2013). These three types of data were combined to find emergent trends in student attitudes towards the different feedback types.

Several additional data sources provided insight into how students used the feedback (research question 2). First, the draft and revision files were synthesized into draft comparisons using Microsoft Word's compare draft feature to make changes more salient for analysis. These draft comparisons were then analyzed alongside the accompanying feedback files. Each recommendation from the feedback file was checked against the draft using a process similar to that described in Ducate and Arnold (2012). The following features were recorded for each recommendation: whether it was a *global* or *local* issue, if it was a *direct* or *explanatory* recommendation or *both*, whether a corresponding change was made in the revision, and whether this change was successful in addressing the issue indicated in the feedback. Definitions and examples of these codes are shown in

Table 2.3. Introducing minor errors did not preclude a change from being considered successful if it still addressed the issue indicated in the feedback. For

example, the addition of a topic sentence would still be considered successful even if it introduced a problem with subject verb agreement. An outside ESL instructor and the researcher independently coded a subsample (<10%) of the video and text feedback data for all of the above descriptors. This independent coding showed 100% agreement on all descriptors except *successful change* (96%). Consensus (100%) on *successful change* was reached through discussion. The researcher then coded all of the data. The feedback categorization codes also aided in establishing similarity of feedback across modes.

Table 2.3. Feedback coding definitions and examples.

Descriptor	Definition	Feedback Example
Global	Relating to larger or reoccurring issues such as organization/structure, clarity, claim strength, support/level of detail, focus, topic appropriateness	1) a concluding statement in this paragraph would bring it to a close more clearly and strengthen points 2) a new paragraph could start here
Local	Relating to sentence level or below issues concerning grammar, word form, or mechanical issues such as comma splices	1) Subject verb agreement 2) Student text: "at America instead of China" Feedback comment: in America instead of China, use in for country, use at for specific places like State University, but in America
Direct	Providing a correct form or example	Student text: "for their students schoolar ship" Feedback comment: scholarships for students
Explanatory	Giving explanation, metalinguistic feedback, options, or reasons	Student text: "obey your orders" Feedback comment: Obey/follow orders is typically associated with the military and seems a little strong for the context of a company. 'Follow instructions', might be one option that is more commonly used with workplaces.

Table 2.3. Feedback coding definitions and examples.(continued)

Changed	Change made in response	Student text: Most of this
Changeu		
	to comment	students chose
		Feedback comment: These
		Because students is plural
		Revision: Most of these students
		chose
Successful	Change made	Student text: The primary
Change	successfully addressed the	element of a good supervisor
\mathcal{E}	area indicated in the	Feedback comment: duty, role,
	feedback.	job, or purpose might be a better
	Note: introducing new	word here as it sounds like you are
	minor errors did not	talking about what they need to do
	preclude a change from	Revision: The primary job as a
	being considered successful	good supervisor
	if it addressed the issue	-
	indicated in the feedback.	

Potential differences in successful revision with global and local text and video feedback were further investigated using a Wilcox Sign Rank Test, where each student's average percentage of *successful change* in each mode of feedback was compared.

In addition to the draft comparisons, screen-recorded observations of student revisions with each type of feedback were analyzed to better understand student use of feedback (research question 2) and inform future feedback and training. The review and analysis of observation data sought to 1) confirm that it was the feedback that led to changes in the student text, 2) identify common ways students interacted with the feedback (use patterns) and problems they encountered, and 3) complement self-reported data. The length of time the student spent revising (calculated from first interaction to final save) was recorded. Each screencast revision was reviewed multiple times and observational notes that included a narrative summary of the content (student actions, spoken interactions, language use, etc.) and researcher reflections were created.

Following the creation of the longer observational note, a shorter summary identifying major trends was written for quick reference. As new actions and patterns were seen, they were noted and other screencast observations were reviewed for similar actions and patterns until no new patterns were found. The notes and summaries were used to create a checklist of common actions and patterns. All screencast observations were coded using the checklist and comments were added where applicable. Emergent categories on the checklist included the successful application of *direct* and *explanatory* feedback, specific use patterns, window placement, native language use and questions asked. The patterns found in the checklists, comments, summaries and notes of the screencast observations were compared by feedback mode. These were triangulated with self-reported data from student survey and interview responses and screencast.com logs to answer the second research question.

Results and discussion

The average number of comments per paper was 32.7 and 29.3 for video and text respectively. Feedback, regardless of mode, addressed a similar range of issues. Analysis showed that the feedback was similar in scope across modes with the majority of feedback, around 75% (74.8% video, 77.9% text), being *local*. Thus, the focus of feedback remained similar across the modes despite the differing affordances.

The primary difference revealed by the coding was that *local* feedback was more likely to be *explanatory* in the video (66%) than in the text (29%), and that nearly all explanatory local feedback in the video was also direct, whereas this was the case for only about one third of the comparable text feedback. Thus, the text feedback was more likely to employ explanatory feedback alone. While all global feedback was explanatory, 12% of the video and less than 2% of the text global comments were also direct

(providing examples of how changes might be made). It is possible that the visual setup of the text feedback, where multiple comments are in view at the same time, may have limited the space available for each concern or deterred repeated explanations that could be referenced elsewhere. In contrast, the temporal nature of the video may have allowed for more explanation than the limited space of a comment bubble as is frequently seen in screencast feedback studies (Ali, 2016; Ducate & Arnold, 2012; Elola & Oskoz, 2016; Harper et al., 2015; Thompson & Lee, 2012). The spontaneous spoken nature of the video may have prompted explanation and examples more naturally, bringing with it some of the tendencies and considerations of spoken conversational language. These language features are explored in greater detail in a follow up study (Cunningham, forthcoming).

The present results are discussed according to the broad exploratory question they address: 1) How do students perceive the feedback?, 2) How do they use (apply & interact with) the feedback?

Student perceptions

While students generally had positive evaluations of both modes of feedback, as revealed through survey and interview responses, screencast was preferred for its ease of understanding and efficiency in revision.

The follow-up surveys (n=17 text, n=21 video) completed after each task revealed student perspectives on helpfulness and ease of understanding. A summary of the positive closed-ended responses can be seen in Table 2.4. While most responses (100% video, 80% text) indicated that both modes of feedback were quite helpful, the follow-up surveys revealed variation in how understandable the students found the feedback. All of the responses indicated that video was at least mostly understandable, yet only just over half (65%) said the same of the text feedback.

Table 2.4. Positive* student ratings of text & screencast feedback on follow-up surveys

		Overall Helpfulnes	ss
Feedback Mode	very helpful	somewhat helpful	Total
Video	70%	30%	100%
Text	67%	13%	80%

^{*}Only positive student responses shown to save space and improve readability. Full response scales- Overall Helpfulness: *very helpful, somewhat helpful, not really helpful, not helpful at all.*

As seen in Figure 2.2, students consistently rated elements of video feedback as more understandable than components of the text feedback. Comment bubbles in particular were a source of confusion for students. On the final survey and during the revision sessions, students mentioned difficulty matching the comments in bubbles to corresponding areas in their texts. For instance, one student stated, "written feed back[sic] is hard to match the comments and the problems." This issue led another student to suggest a footnoting scheme with numbered comments. In the interview, all of the students expressed difficulty with MS Word comment bubbles, similarly citing that they had trouble connecting these comments to the related sentences. When probed further, they indicated that the issue persisted despite each knowing how the feature worked and that they could click the comment to see the specific area highlighted. This element of the interface was the primary reason students gave in the interview for why the written feedback was confusing. They did not believe that the confusion would be fully alleviated with fewer comments or that fewer comments would be an appropriate trade off. In contrast, when asked about the video feedback, students in the interview stated there were no parts that they found confusing, that they did not need help to understand it and that they would not change anything.

Student comments on the follow-up surveys showed consistent remarks on the ease of understanding the video feedback and a preference for the affordances (elements or properties) of the mode. Some students offered simple overall statements about the video feedback, such as it being "easier to understand than written feedback," and "really easy and useful to understand and revise the writing." Others highlighted specific aspects of the video feedback. For instance, one student stated "the speaking and explanations are very clearly[sic]. I can understand it very easy. It is very helpful," and said, "I love this explanation. It is really clear and easy to understand." Similarly, in the interview, a student said that the most helpful part of the video was having an explanation of what was wrong and several options for how to change it. It is possible that the sense of helpfulness and ease of understanding that students experienced stemmed in part from the higher proportion of explanatory feedback and examples prompted by the video mode.

However, some students cited other aspects. On the third assignment a student commented, "I could understand the written feedback, but the audio feedback was more understandable. The mouse movements were very helpful." The provision of active visual references, such as mouse movements, in the video may have helped students better associate comments with specific sections of their text, overcoming the difficulty experienced with comment bubbles. This would be in line with the findings of video feedback studies in L1 environments (J. Sommers, 2013; Thompson & Lee, 2012; Warnock, 2008).

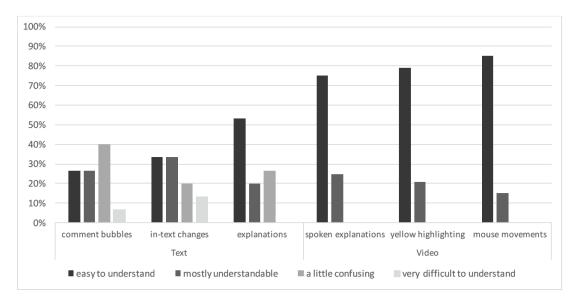


Figure 2.2. Student ratings of ease of understanding text and video feedback component on follow-up surveys

Note: Values are percent of total responses.

Students also mentioned mode affordances related to the spoken aspect of the feedback specifically as a source of their positive attitudes towards the video feedback.

Open-ended student responses on the follow-up survey emphasized the helpfulness and efficiency of the video feedback in addition to ease of understanding. One of the students reflected:

"The possibility to listen and make changes at the same time was very 'very'[sic] helpful. It makes easier to understand the mistakes."

Another student echoed this sentiment saying, "The video feedback is very helpful...it is easier to understand and make changes at the same time."

These sentiments, common across survey and interview responses, stressed the parallel processing possible with the video feedback. The parallel processing, which allowed for simultaneous listening and revision (which contrasts with the serial read-then-revise process of written feedback), was highlighted by students as being helpful

and making it easier to understand and apply feedback. Students also mentioned this as a reason for liking the video feedback and finding it more efficient to revise with.

Additionally, in the interview all of the students indicated a preference for listening in general over reading and that listening was as easy as or easier than reading. They agreed that this preference might also be part of the reason they greatly preferred the video feedback to the written. On the follow up survey, one student offered an additional reason behind the preference for video feedback. This student felt that the video mode led to better retention and uptake of feedback, stating "when somebody else is talking and showing the mistakes, I am able to understand better and memorize the most common mistakes."

Another student mentioned the spoken quality in relation to efficiency:

I like feadback[sic] with video more than feadback[sic] with documents.

...It also can save more time because video feadback[sic] just like the teacher talk to everyone about their own problems at the same time. We do not have to ask teacher about the feadback[sic] one by one.

Likening the video feedback to a teacher talking to students about their own individual problems seems to echo other work on screencast feedback that found it to be personal (Ali, 2016; Harper et al., 2015) and conversational (Anson et al., 2016; Warnock, 2008). The mention of efficiency and not having to ask the teacher parallels what was seen in class as students revising with video feedback did not ask for clarification, unlike those working with text feedback.

Compared to the overwhelmingly positive comments about video, comments addressing text feedback were more mixed. While two students mentioned that the text

Some students stated that they knew how, but not why, to make changes, perhaps in part due to a somewhat lower proportion of explanatory comments in the text feedback, and that while they could mostly understand the text feedback, some things were harder to understand, although they did not offer examples. Students often described the feedback as "difficult to understand" and "confusing." In the interview, the only explanation offered by students for the confusion with text feedback was the difficulty with comment bubbles as discussed above, suggesting that specific presentational aspects of the mode played key roles in students' attitude towards the feedback.

While responses from group B (the group to receive text feedback first) were mixed, those from group A (who received the text feedback after having received video) were entirely negative concerning the text feedback, commenting on the difficulty of use. The heightened ease of use and understanding students found with video feedback seems to have led them to notice a deficit when comparing the text feedback to this new-found utility.

These sentiments became more pronounced on the final survey where all of the students rated text and video feedback side-by-side. The results of close-ended items can be seen in Table 2.5. Of the 11 students who completed the final survey, nearly all of them (10/11 text and 11/11 video) found both modes of feedback to be somewhat or very helpful. Most students (8/11) rated the video feedback as being more helpful, easier to understand and more preferred for future feedback than the text feedback, while the remaining students rated the two types of feedback equally.

Table 2.5. Student ratings of text & video feedback on final survey

	Helpfulness 1 (not helpful) to 6 (very helpful)		Ease of Understanding 1(very difficult) to 6 (very easy)		More Wanted in Future 1 (definitely no) to 5 (definitely yes)	
Feedback		# positive		# positive		# positive
Mode	mean	responses	mean	responses	mean	responses
Video	5.55	11/11	5.09	11/11	4.73	11/11
Text	4.36	10/11	3.64	6/11	3.27	5/11

The comments on video feedback in the final survey echo these preferences. In addition to frequent comments about liking and preferring the video feedback, students regularly called feedback "easy to understand" and "clear" with some claiming they could clearly understand not only the kinds of changes to make but also why, likely in part due to the higher proportion of explanatory feedback in the video feedback and in part due to students finding listening easier than reading. Students also regularly cited the efficiency and convenience of the video feedback but rarely mentioned the text feedback.

Students in the interview unanimously agreed that video feedback was "better" and much preferred to the text feedback as well. They commented on how easy video was to use and to understand, in contrast to the findings of Elola and Oskoz (2016), and that they would like video for all future feedback in the course. On the final survey, one student reflected on both types of feedback in a comment that summed up many of the student sentiments saying, "I don't like that much the written feedback once that we compare with the video. Of course the written feedback is helpful too, but the video feedback worked better." Overall students saw benefits in both types of feedback, but comments suggested that when compared, video seemed to better fulfill their needs.

Student use of feedback

How students used the text and video feedback was explored through draft comparisons, screencast observations and self-reported data from surveys and interviews.

Draft comparisons, noticing and revision

The analysis of the revised drafts supports student opinion that both types of feedback were useful and effective. Students used feedback in both modes to address areas of their papers at similar rates overall as seen in Table 2.6. Both types of feedback led to change in the majority of cases with 89% of both video and text comments resulting in changes. Successful change was seen at similar rates across both modes as well (video 84%, text 81%). Despite local feedback being more explanatory in the video mode, student success in applying local feedback was similar (video 88%, text 87%) across modes.

Table 2.6. Percentage of global and local changes made by feedback type

	Local		Global		Overall	
Feedback Mode	Changed	Successful	Changed	Successful	Changed	Successful
Video	92%	88%	79%	71%	89%	84%
v ideo	(SD=9)	(SD=9)	(SD=21)	(SD=19)	(SD=10)	(SD=10)
Text	92%	87%	76%	55%	89%	81%
TCAL	(SD=10)	(SD=13)	(SD=27)	(SD=32)	(SD=12)	(SD=14)

Note: All percentages are mean percentages across documents.

The only area where feedback success showed possible difference was in global feedback. While overall, students successfully addressed 71% of global video comments, only 55% of text comments lead to successful revisions on average. However, a Wilcox Signed Rank Test showed no significant difference between the global revision scores (Z=-1.604, p=.1096). The small number of global comments (2-17 video, 1-15 text) in

individual papers led to high variation in percentage based success rates, making it difficult to identify substantial differences between the modes. Thus, video and text feedback lead to similar degrees of success in revision and the lack of written comments in the screencast feedback seems to have had no negative effect on revision outcomes.

Questions and help patterns

Support for student perceptions of the ease of understanding each mode of feedback was also found in reported and observed patterns of use. Specifically, differences were found between the two modes of feedback in terms of help and questioning patterns and native language use in the observational, survey and interview data.

Several survey and interview responses mentioned the need to ask someone, usually a teacher or feedback-giver, to explain written comments further whereas this was not noted with the video feedback. This was supported in the screencast observations as well. More than half of the students (5/9) asked the instructor or the researcher for clarification of the comments in the text feedback and at least two additional students asked a classmate for clarification. Four of the nine students held conversations with classmates in their native languages during revision with the text feedback, though these were not translated. In the interview, students recounted asking for help in understanding the comments in the text feedback. With the text feedback, one-third of the students observed also checked their understanding by asking the instructor or researcher for input or confirmation on additional changes they had made based on the feedback.

In contrast to what was seen with the text feedback, no students asked for help during the in-class revision with video feedback. Interviewees also reported not needing to ask anyone about the video feedback. This suggests that students understood the video

feedback better on their own as noted in the surveys and interview. Despite identical seating arrangements and attendance for both observations, students revising with video feedback only communicated in English. It is possible that the ease of understanding removed the need to switch to other languages for clarification. It is also likely that the audio nature of the video feedback maintained student focus on English during revision. Three students asked the instructor or researcher for confirmation on major global changes they had made based on the video feedback. Students had understood and successfully made changes without the need to clarify the feedback first. This contrast supports student claims that video feedback was easier to understand.

This lack of need for further clarification in video may have come in part from more frequent explanations and examples offered in the video feedback. This may also have stemmed in part from affordances of the mode. This contribution of mode is at least three-fold in that 1) some students were more comfortable listening rather than reading, 2) the mouse movements and referencing in the video provided specificity that was clearer than the comment bubbles, and 3) the temporal nature of video is such that students are pushed into focusing on one comment at a time and listening to every word. This last point contrasts with text feedback where students are presented with multiple comments on a page at once and may skim, skip or delete comments rather than read them carefully. All of these factors seem to have contributed to understanding of the feedback and lessened the need for outside help.

Revision behavior

Revisions took students an average of 40 minutes with text feedback during the 50-minute class period, but on average only 25 minutes with video, nearly half the time spent revising with text feedback. This supports student claims that video feedback was

more efficient for revising and that a lack of understanding with text feedback led to "a long time" spent revising.

Revision behavior with text feedback

Patterns of use, or how the students used and interacted with the feedback, were found in the nine screencast observations of students working with the written feedback files. Students consistently made global and local changes in response to text feedback in just over half of the observations. Most of the students (7/9) seemed to read the entire feedback file. The most successful students seemed to read through the entire document and comments at least once before displaying the feedback and draft files side-by-side and proceeding linearly through the feedback top to bottom.

During this process, many of the students closed comments as they addressed them in their papers, likely to keep track. While most students were observed doing this, one student read each comment, often verbalizing it a few times, then closed it and switched to his draft and revised. Another student, who made changes directly in the feedback file, appeared confused by the review features in Word and seemed to give up, simply closing many comments without reading them once she discovered this feature. This student had a lower reading placement than the rest of the class. It is possible that her lower reading proficiency influenced this behavior, but as the student did not attend the interview, no follow-up was possible. This student and a few others appeared at least somewhat unfamiliar with review functions in Word, despite having received similar feedback in the past, suggesting that the functions are not intuitive and may require learner training. However, the interview showed that even when students are familiar with the functions, they still dislike them and find them confusing.

Revision behavior with video feedback

Each of the ten observations of student revision with screencast feedback showed students consistently successfully addressing both global and local issues in response to the feedback throughout the revision time. Every participant played their video through at least once, with seven replaying parts and two replaying the entire video. All made systematic linear use of the comments, going start to finish through the video, making revisions as they went. This matched student survey responses about being able to listen to the feedback, understand it "and make changes at the same time." Some students played, paused, revised, then played or rewound the video for each comment. Most kept the video visible when playing and switched to the draft to revise. Others made the changes as the video played, usually without pausing. These students kept draft and video windows side-by-side and only occasionally paused, or more often rewound, the video if needed. These observations highlight the need for reviewers (instructors) to pause after each comment to allow for revisions, an observation noted by a student in the interview as well. Most students, after playing the video and addressing comments, spent additional time addressing global comments. In the interview, two students reported watching the video through once first, then watching while revising and sometimes watching a final time to check their work. This final check viewing was not observed in class. With the familiarity of video and its controls, students needed no direction to use and interact with the video and none mentioned difficulties in this respect even when asked directly. At least in simple video feedback, learner training on the technical aspects seems unneeded.

Two students demonstrated additional strategies. One, realizing that he did not have time to make a global change inline (with the video playing) after rewinding, simply

marked the place in his draft with a "//" and continued with his changes through the end of the document. He then returned to that place to make the complex global change successfully. Another student using the inline (no pausing) method would systematically mouse over the next yellow highlight in anticipation of the next comment. This served as an efficient strategy that capitalized on the affordances of the video feedback. Such practical strategies that arise from the mode of feedback point to the possibility for new areas for learner training.

Other uses of feedback

These observations show part of how students may be using feedback files. From the screencast.com logs, it was noted that students played videos one to eleven times, 2.5 on average. While this may seem to conflict with the use patterns described above, it aligns well with student survey responses that they intended to "do the changes and also learn from it for future assignment," and that after they "made changes based on feedback," they wanted "to review it again later." This is similar to reports by Moore and Filling (2012). In contrast, only one student mentioned wanting to use the text feedback as a reference for future writing. Students saw the video feedback as reference not only for revisions but for future work and thus engaged with it beyond the immediate task of revision.

Conclusion and implications

This study aimed to provide a practical understanding of screencast feedback in an intermediate-level ESL writing course. This aim was framed around student perceptions and use of screencast feedback as it compared to text. Student-reported data showed that although students saw utility in both screencast video and electronic text feedback, they preferred the screencast video feedback for its ease of use, efficiency and

heightened understanding. This finding echoes other studies on screencast feedback (e.g. Ducate & Arnold, 2012; Moore & Filling, 2012; Vincelette & Bostic, 2013). Student reports also showed that even commonly used and familiar features such as MS Word comment bubbles may add difficulty to working with feedback rather than utility.

Student use of feedback was addressed through draft comparisons, student interviews, survey data and screencast observations of revision behavior. Results showed both types of feedback led to successful revisions with similar yields at the local level and slightly higher, though not significantly higher, rates of success at global levels with video, with video-prompted revisions also accomplished in less time. These results show that screencast feedback alone without written comments can be just as effective, if not more effective, than text feedback. The observed revisions supported student assertions of the efficiency of the feedback and suggest that instructors need to consider how students use feedback when creating it. In screencast feedback, this may mean consciously pausing after comments to give students time to pause the video or revise. Results also supported student assertions that the video feedback was easier to understand as students were seen asking more questions and switching to native languages when working with the text feedback, but not with the video.

The results of the present study suggest that both video and text technology-mediated feedback are effective. In this context, video feedback seems to be more efficient for, attended to by and understandable for students while being at least as effective for revision as text feedback. This suggests that standalone screencast feedback is worth further investigation, use and support.

This study explored these two types of feedback in a single class of a dozen technologically-proficient students at a US university. It also looked at a limited set of assignments over a month and a half with students having only two exposures to each type of feedback. The newness of the video feedback may have produced a novelty effect where participants had an increased positive response to and interest in the video feedback during initial exposure to the new technology (Clark, 1983). Since both modes of feedback were somewhat new, being provided by an outsider, the novelty effect may have been mitigated to some degree by being present in both modes of feedback. While the writing topics in the study were parallel enough to not have individual effects on the revision results of this study, they represent a narrow range of the writing students do. Additional research could explore feedback on a variety of other authentic writing types. Future studies investigating screencast feedback might consider studies over longer periods of time or in programs where screencast feedback is used more ubiquitously to mitigate the effects of novelty.

One additional consideration when interpreting these results is that the outsider status of the researcher somewhat separates the feedback from the feedback situation faced by most instructors. In many educational contexts, the instructor develops a relationship with students over time and becomes familiar with the learning styles, work and progress of each student. Students similarly form opinions and degrees of trust towards their instructors over time that can alter how they view and apply feedback (G. Lee & Schallert, 2008a, 2008b). Such relationships were not present in the current study and thus were unlikely to have influenced the results. Authentic instructor feedback that considers feedback mode in light of these more complex relationships may be an

variables impact perceptions and use of new feedback modes. Further, with the constant increase in class sizes and instructor workloads, the amount of feedback individual instructors must give is constantly increasing, and often much more than 12 papers at a time. Thus, while the feedback in the present study was not affected by the stress of high workloads or the frustration of repeated issues with students, these are elements encountered in many of the contexts SLW instructors work in, which could certainly alter the feedback they give (M. Lee, 2009). It is possible that instructor relationships and workload may affect text and screencast feedback differently. Future studies might consider how such factors emerge in a range of authentic contexts with text and screencast feedback.

Feedback in SLW is a growing area for research, and current technological development and use calls for more studies on technology-mediated feedback. Future studies might look further into student use of feedback with the aim of uncovering what use patterns lead to greater implementation and how such use patterns might be modeled into strategies and training that could help students become more effective at using different forms of feedback. Since students often revise at home, future work could look into remote screencasting to capture these out-of-class behaviors. Beyond this, the effect of mode on the instructor side, especially in terms of time and perceptions needs to be explored. More could be studied about how instructors use different modes of feedback and how this application of technology affects their feedback and students. Studies with user experience approaches could offer needed design solutions so that practical concerns

69

can be addressed and simple effective solutions found to make screencasting and the hosting and distribution of video feedback a more accessible option for instructors.

The present study has shown the potential of screencast and audio data in tracking student use of feedback for revision. This type of data could be more widely used in feedback studies to address a range of questions in SLW, revision and feedback. In addition, future studies might expand this to include biometrics such as eye-tracking, which could better track student attention and what they attend to specifically while revising with different modes of feedback.

As technology progresses and we see greater integration of automated writing evaluation tools, the mode of instructor feedback may become even more critical. As instructors emphasize the relational and human aspect they bring to feedback, mode choice and a solid understanding of the effects of technology choices may be critical to achieving instructor goals through feedback. Future studies may continue to expand our understanding of the impact our mode choices have on instructors, students, revision and feedback.

Appendix

Writing Prompts

W1

Many students choose to attend schools or universities outside their home countries. Why do some students study abroad? Use specific reasons and details to explain your answer.

W2

"When people succeed, it is because of hard work. Luck has nothing to do with success." Do you agree or disagree with the quotation above? Use specific reasons and examples to explain your position.

W3

Some people think that they can learn better by themselves than with a teacher. Others think that it is always better to have a teacher. Which do you prefer? Use specific reasons to develop your essay.

W4

What are some important qualities of a good supervisor (boss)? Use specific details and examples to explain why these qualities are important.

CHAPTER 3. APPRAISAL AS A FRAMEWORK FOR UNDERSTANDING MULTIMODAL ELECTRONIC FEEDBACK: POSITIONING AND PURPOSE IN SCREENCAST VIDEO AND TEXT FEEDBACK IN ESL WRITING

Modified from a manuscript in press at Writing and Pedagogy

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Abstract

Given the multimodal nature of new modes of electronic feedback, such as screencasting, there is a need for the application of robust, theoretically grounded frameworks to capture linguistic and functional differences in feedback across modes. The present study argues that the APPRAISAL framework, an outgrowth of systemic functional linguistics (SFL) that focuses on evaluative language and interpersonal meaning, can provide understanding of and discernment between technology-mediated modes of feedback. The study demonstrates this potential through an APPRAISAL analysis of a small corpus of 16 screencast video and 16 text (MS Word comment) feedback files given to eight students over four assignments in an intermediate ESL writing class. The results suggest possible variation between the video and text feedback in reviewer positioning and feedback purpose. Specifically, video seems to position the reviewer as one of many possible opinions with feedback focused on possibility and suggestion while the text seems to position the reviewer as authority with feedback focused on correctness. The findings suggest that APPRAISAL can aid in the understanding of multimodal feedback and identifying differences between feedback modes.

Writing instructors make a number of choices when giving feedback on student text. They must decide when to give feedback, what to focus on and how to create and deliver the feedback. With technology now an integral part of the academic writing process, it is only logical that much of instructor feedback is delivered in a digital format. As technology brings with it a myriad of affordances, instructors are presented with even more choices. Rather than simply typing what one might usually write, instructors can provide links or give audio or video comments. Instructors, however, need to be aware of how using the affordances of technology may affect their feedback, perhaps even changing the nature of this feedback.

Multimodality adds complexity to feedback. It may have visual and audio layers, such as the video of student work with instructor mouse movements and audio commentary found in screencasts. Because of such complexity, a seemingly simple difference in mode, such as text or video, may carry with it further implications. To understand how a shift in mode may change the nature of feedback, it is necessary to look beyond text-focused typologies. Instead the focus must be on new frameworks that can give insight into both simpler modes, such as text, and emerging multimodal feedback practices, such as screencast, with equal strength and appropriateness.

Given that text comments, such as those in MS Word comment bubbles, are written and comments in screencast videos are spoken, it is reasonable to consider that the language choices evident in the feedback may vary as language choices made in written and spoken language as a whole are often seen to differ (Biber, 1988; Biber, Conrad, Reppen, Byrd, & Helt, 2002; Halliday, 2002; Sperling, 1996). There exists the possibility that observed differences between speech and writing are in part due to their relevant contexts and genres. In feedback, however, unlike broader studies of speaking and writing, the context is controlled and the audience and purpose seemingly the same.

While the spoken aspect of the screencast might suggest it would be more similar to conversation, it lacks the interactive presence of the student to move the conversation along as might happen in a conference. It becomes a type of one-sided conversation with a shared frame of reference, the student document, much like comments written in the margins of a student text. Both types of feedback can refer visually to elements in the paper when commenting on them. This suggests that screencast feedback may be more similar to written feedback than audio commentary. Audio might be more akin to a letter or lengthy end comment where the student text is not immediately present for reference in the same way. Nonetheless, studies of screencast feedback regularly report students perceiving the feedback as more conversational in nature (e.g. Vincelette & Bostic, 2013).

While there have been some attempts to reveal the perceived differences associated with delivery mode (screencast video or digital text) by investigating the feedback itself, such as through an investigation of the manner of feedback (e.g. Elola & Oskoz, 2016), at the time of writing these have not been able to discern clear differences and show a theoretically grounded understanding of how the feedback itself varies with mode through systematic analysis of the comments. However, a systematic analysis of the feedback should have the potential to reveal the language behind student perceptions and with it offer further insight into the differences between these modes. Hence there is a need to consider new frameworks that can discern such differences in investigating comments across modes and be applied across multiple technology-mediated and multimodal forms of feedback.

In pursuit of such a framework and with the goal of identifying potential variation across the modes of text and screencast feedback, the present study draws on a highly adaptable theoretically grounded model of language. Situated in Systemic Functional Linguistics (SFL), the study investigates the potential differences between text and screencast video feedback as manifested in the evaluative language, or APPRAISAL¹ resources, of the feedback itself. With roots in the interpersonal aspects of language, an understanding of APPRAISAL can shed light on potential differences between the modes that may be less apparent through other means. Specifically, this analysis seems to reveal the position of the reviewer and the role of feedback as manifested in language choices across the modes. This investigation goes beyond traditional taxonomies of feedback to focus on a linguistic understanding of what the feedback text is doing in a bottom up approach and provide insights into how a simple choice of technology may bring with it unforeseen implications for feedback.

Screencast video feedback

One technological choice instructors have for making feedback on student writing is screencasting, also known as screen recording or screencast video. With the spread of access to video creation and hosting platforms, the use of screencast video feedback in the classroom and its profile in research are quickly rising. While second language writing (SLW) students tend to apply screencast feedback at a similar or slightly better rate than comments in text feedback during revision (Ducate & Arnold, 2012; Elola & Oskoz, 2016), students often prefer it to more traditional text feedback (Ducate & Arnold, 2012; Mann, 2015; Poulsen & Hewson, 2015; Vincelette & Bostic, 2013; Walter,

¹ Small caps are used to denote technical terms in the APPRAISAL framework.

Ortbach, & Niehaves, 2015). Screencast video feedback tends to be longer in terms of overall word count (Mann, 2015) despite containing about the same amount of feedback (Elola & Oskoz, 2016) and often taking less (Edwards, Dujardin, & Williams, 2012; Poulsen & Hewson, 2015; Siegel, 2006) or a similar amount (Vincelette & Bostic, 2013) of time to produce when compared to text. Students have suggested that video feedback contains more explanation (Moore & Filling, 2012; Thompson & Lee, 2012) and is easier to understand (Harper et al., 2015; Mann, 2015; Moore & Filling, 2012). The human element of the screencast feedback (Harper et al., 2015; Thompson & Lee, 2012) can lead it to seem more personal (Harper et al., 2015; Mann, 2015; O'Malley, 2011), hedged (Mann, 2015), conference-like (Moore & Filling, 2012; Vincelette & Bostic, 2013) and conversational (Elola & Oskoz, 2016; Silva, 2012), even leading students to continue that conversation in person later (Vincelette & Bostic, 2013). Despite these perceptions, there is little empirical evidence to illustrate perceived differences and interpersonal variation in the feedback itself.

One study that attempted to identify differences in the comments given through text (MS Word comments) and screencast feedback was Elola and Oskoz's (2016) case study of one Spanish instructor's comments for four students on two drafts of a narrative essay in a university capstone writing course. An analysis of the manner (suggestion, statement, question, etc.) and amount of feedback showed no difference by mode. Yet the researchers and the students felt there was a qualitative difference. Students called the written feedback direct, impersonal and at times unclear and the video conversational and more explanatory. However, the frameworks applied in the study were unable to capture such a difference nor the difference in tone picked up by the students. Thus, there is a

need for the application of a different set of tools and other frameworks to investigate such differences across mode and reveal the systematic differences that can be perceived but have yet to be fully analysed and described.

Framework considerations for multimodal feedback

A systematic analysis of feedback that can elucidate these differences might lend even greater insight into how the mode seems to be influencing the feedback. Some frameworks based on the idea of the rhetorical *move*, or specific communicative purpose (Swales, 1990), attempt to functionally capture the purposes in feedback. Yelland's (2011) refinement of Mirador's (2000) move framework for written feedback, for instance, includes mitigation strategies for managing negative feedback. Differences in the way negative feedback is mitigated may be a component of what students and instructors perceive as different between screencast and text feedback. However, move frameworks are necessarily based in the text type they were created for. Being created for a written mode of feedback, like so many feedback typologies, such a move framework may need significant adaptation for use with screencast feedback. Such refinement may have the potential to impede the ability of the framework to accurately compare across different modes.

While adaptation of existing frameworks based in text feedback present an option, more can be done than to simply study multimodal feedback using tools developed and refined for written feedback. One option is to adapt or develop novel frameworks out of analysis of new feedback modes specifically for different types of multimodal feedback. For instance, in studying audio commentary on student work, J. Sommers (2012) suggested a taxonomy based in the temporal nature of the feedback and the student-

teacher relationship. Finding this time-based feature particularly prominent in audio feedback, J. Sommers (2012) suggested that comments are often of three types: 1) retrospective, referring to shared class experience; 2) synchronous, referring to the instructor's reading experience of the paper and 3) anticipatory, referring to future shared class work. Given that both audio and screencast feedback use recorded spoken comments, a framework such as this may hold promise for screencast video feedback. However, given the presence of the visual reference of the student text in the screencast feedback, the framework may still require further adaptation. Posing a larger problem is that such a framework may not be similarly adaptable for analysing text feedback and thus, may not provide a holistic understanding of the role of mode in multiple technology-mediated forms of feedback.

The problem remains how to analyse both text and screencast video feedback using the same, equally appropriate, framework for both analyses so that the results might be compared. The framework would need to also allow for useful insights for instructors considering the medium. A framework grounded in a clear theory apart from a specific medium of feedback could offer such insight. Appliable or applied linguistics, being based broadly in language rather than any one specific genre or mode, can provide such a foundation.

Systemic Functional Linguistics (SFL) (Halliday & Matthiessen, 2014), specifically, provides a theoretically grounded base with a functional focus flexible enough to capture the language choices evident in any mode, even multimodal electronic feedback. SFL, here highly simplified for ease of explanation, suggests that individuals make language choices (those things someone speaks or writes) from their language

resources (all the ways an individual is capable of articulating something) and that these language choices are made and interpreted in context to make meaning and serve different functions. With this grounding, SFL allows for context-specific analyses of whole texts by way of analysing the language choices that serve these functions (actually metafunctions): textual, ideation and interpersonal. The textual metafunction helps a text hang together and concerns cohesion and coherence (Halliday & Matthiessen, 2014). The ideational metafunction, on the other hand, is essentially concerned with the aboutness or the 'what' of a text (Halliday & Matthiessen, 2014). Finally, and more pertinent to the aim of understanding multimodal electronic feedback, the *interpersonal* metafunction concerns how relationships are constructed and maintained through a text or the 'who' of the text (Halliday & Matthiessen, 2014). The interpersonal is analysed by looking at the tenor of a text, or by assessing the language choices that contribute to this larger function. It is in this interpersonal metafunction and the tenor of the text that the perceived differences between text and video feedback seem most likely to lie. The tenor of a text is made up of the language choices stemming from a number of language resources including *mood, modality* and *appraisal* (Derewianka, 1999a; Halliday & Matthiessen, 2014; Martin & White, 2005). Given its focus on evaluation, it is appraisal that seems the ideal candidate for exploring multimodal feedback.

APPRAISAL as a framework for analysing feedback

Appraisal resource use is explored through *the APPRAISAL framework* (Martin & White, 2005; White, 2015), which is 'an approach to exploring, describing and explaining the way language is used to evaluate, to adopt stances, to construct textual personas and to manage interpersonal positionings and relationships' (White, 2012c para. 1). The

APPRAISAL framework, with its focus on the language of evaluation and interpersonal positioning and its foundation in a theoretically grounded appliable linguistics that covers multimodal texts and written texts equally well, is an ideal candidate for exploring the differences between text and screencast video feedback.

The appraisal framework lends itself to the investigation of a number of language related phenomena. For instance, APPRAISAL has been explored in the study of spoken contexts such as conversation (Eggins & Slade, 1997), supervisory conferences (A. Ferguson, 2010) and sports interviews (Caldwell, 2009). It has also been applied to understand written genres such as narrative (Macken-Horarik, 2003; Martin & Rose, 2007), newspaper reports (White, 2012b) and letters (Adendorff & Smith, 2014; J. Smith & Adendorff, 2014), editorials (Martin, 2004), advertising (Pounds, 2011) and threats (Gales, 2011). Appraisal use has been analysed in investigations of student development in academic contexts such as identity development (Barletta, Mizuno, & Mass, 2013; Kristjansson, 2010, 2013) or emerging intercultural competence (Belz, 2003) in course activities and reflection.

Focusing specifically on the language of evaluation and its interpersonal function, the APPRAISAL framework is ideal for elucidating a nuanced understanding of the language of feedback across technology-mediated communication modes. The discussion of the APPRAISAL framework follows Martin and White (2005) and White (2012c, 2015) for their broad coverage of the system, though Eggins and Slade (1997) and Martin and Rose (2007) offer more specific explanations for casual conversation and narratives, respectively. The resources associated with APPRAISAL include a range of linguistic devices such as 'evaluative' lexis, modal verbs, modal adjuncts and polarity (Martin &

White, 2005). APPRAISAL (Martin & White, 2005) is broken into three systems-ATTITUDE, ENGAGEMENT and GRADUATION--which are in turn broken down into subsystems.

The first system, ATTITUDE, is broken into three subsystems-- AFFECT, JUDGEMENT, and APPRECIATION. AFFECT focuses on the language resources used to express emotion. These include sentiments, such as *loving* something or *hating* it, and generally answer how one feels about something or concern the emotional reactions something provokes. JUDGMENT is concerned with assessing behaviour on the basis of norms while APPRECIATION, despite the potentially misleading terminology, covers both the positive and negative evaluation of things. Where JUDGEMENT discusses action and behaviour, APPRECIATION focuses on things. Saying that someone writes poorly might be considered JUDGEMENT whereas saying that a sentence is grammatically incorrect, would be APPRECIATION. These three attitudinal networks can also be discussed in terms of the object or target of the AFFECT, JUDGEMENT or APPRECIATION; that is the thing that is being judged or appreciated. Thus, in the above example 'the sentence is grammatically incorrect,' the sentence would be the target of negative APPRECIATION. In coding for ATTITUDE, one must look at more than just the words and consider also the context and other cues in and around the text. ATTITUDE in feedback can show the polarity of utterances, whether they are positive or negative. An analysis of the targets and types of ATTITUDE shows what is being evaluated. APPRECIATION, with its focus on evaluating things, could indicate a focus on evaluating the student text. However, a use of JUDGEMENT is more likely to show a shift of that evaluation to the writer and the writer's abilities rather than on the current state of the student text. In the case of negative

assessments, it seems preferable to focus on the student text through appreciation. The polarity of ATTITUDE can also reveal specific aspects about feedback. For instance, positive appreciation of aspects of the student text would correspond to praise. Looking proportionally at how positive and negative ATTITUDE are used in the feedback could reveal the balance of praise and criticism.

The second system of APPRAISAL is ENGAGEMENT, a system concerned with the space for and interaction with other voices within a text (note that a text is not limited to writing). ENGAGEMENT is typically represented as a network diagram showing how different choices expand or contract the space for potential dialogue or other voices, stances or opinions in the text. The initial branch diverges between monoglossic comments, or single voice bare comments, and those that are diglossic, or interacting with other voices. In feedback, where an instructor is discussing the student text, it would be expected that the comments refer to the student text and would be therefore diglossic in nature. The diglossic branch of the network splits further into several branching directions. The main split is between expanding resources, those open to dialogue, or contracting resources, those that shut down the space for dialogue. Contracting resources are divided between those that disclaim (negative statements) and those that proclaim (positive statements) while the resources to expand are split into those that entertain (position the speaker/writer as one of many possible opinions) and those that simply attribute (report what someone else has said) as seen in Figure 3.1.

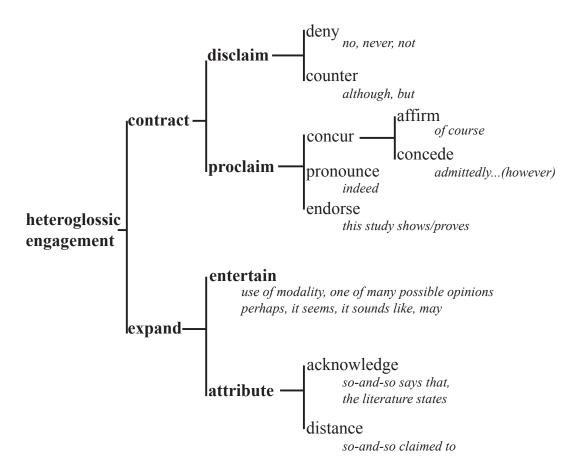


Figure 3.1. Diglossic ENGAGEMENT resources, adapted from Martin & White (2005) Fig. 3.4 p. 134

The distinction between contracting and expanding resources is critical in understanding how reviewers position themselves in feedback. Since contracting resources close down alternatives and other opinions, when used in feedback, they make it difficult for students to critically consider comments. Contracting resources restrict the set options, or dialogic alternatives, available to the student. In some cases, where pronouncements (explicit authorial emphasis, intervention or interpolation) challenge the student directly, it could threaten student-teacher solidarity (Martin & White, 2005). A high use of contracting resources may position the instructor (or reviewer) as an authority who is difficult to challenge or converse with. Further, it could be seen as limiting student

agency over the text. Expanding resources, on the other hand, create space for dialogic alternatives. Resources used to entertain (a specific type of expanding resource) position the speaker, in this case the reviewer/instructor, as one voice or opinion out of many possibilities. In feedback, these appear as hedged suggestions or options for revision such as "you could consider_____" and reader response comments such as "I'm not sure I understand this part." Attribution, another type of expanding resource, offers neutral reports from other sources. In feedback this might look like citing a manual or text book by saying for instance, "our textbook says...". These might also include simple references to the student text such as "here you say...". A high use of expanding resources might invite the student into a conversation with the feedback and keep agency of the text in the hands of the student.

The final system of APPRAISAL is GRADUATION or the scalable aspect of the other systems of APPRAISAL where the force or focus (Martin & White, 2005) can be adjusted to strengthen or mitigate, similar to hedging and boosting (e.g., K. Hyland, 1998).

GRADUATION is achieved through a range of linguistic choices and, as with ATTITUDE, can depend on the delivery and context of the situation. Such choices may include repetition or other lexicogrammatical choices. Modal verbs and adjuncts are common sources of GRADUATION. For instance, saying that a sentence *could* be improved would be lower GRADUATION than saying a sentence *definitely needs to be* changed. Similarly, GRADUATION can be achieved through word choices such as using different descriptive adjectives along a gradient. *Good*, for example, could potential function as a neutral ungraduated appreciation whereas *not bad* or *OK* might function as lower GRADUATION and *great* or *excellent* might be higher GRADUATION of the same sentiment. An

examination of the GRADUATION of ATTITUDE in feedback could show the degree to which negative feedback is mitigated. Negative feedback mitigation has been shown to be a critical strategy to avoiding overwhelming or discouraging students with negative comments (K. Hyland & Hyland, 2006). The alleviation of the threat of negative feedback is often achieved by opening the space for dialogue, offering a balanced appraisal with praise and mitigating negative feedback, a combination of ENGAGEMENT, ATTITUDE and GRADUATION resources.

In combination, these three systems allow for the analysis of APPRAISAL resources used in a text, such as feedback. Such analysis can illustrate how the text interacts with other voices, the way behaviours and things are evaluated and how emotion is conveyed. Taken together, these aspects can reveal interpersonal positioning and graded evaluation within a text as seen through manifestations of language.

The present study

To demonstrate the potential of the APPRAISAL framework for multimodal feedback studies, the present study employs the framework to investigate a small highly parallel corpus of text and screencast feedback given by one reviewer to the same set of students over four ESL writing assignments. Through this investigation, the study seeks to provide a better understanding of the perceived differences between these modes and provide insight for practitioners into possible implications of mode choice as revealed through the language choices evident in the feedback itself. Additionally, in doing so, this study begins to answer both Mann's (2015) call for more 'data led accounts of the nature and value' of multimodal feedback (p.173-174) and Vincelette and Bostic's (2013) acknowledgment of the need for comparison of screencast and text feedback from the

same reviewer for the same students. In employing the APPRAISAL framework to investigate screencast and text feedback, this study sought to answer the following research questions:

How are APPRAISAL resources used in this text and screencast feedback?

What differences are there (if any) in the use of APPRAISAL resources across these modes of feedback in this context?

That is, when APPRAISAL resources are seen in the feedback, what do they look like and how does what they look like vary between modes. With an understanding of APPRAISAL, the paper then suggests what can be learned and how this might be taken into account by instructors when choosing technology tools for their feedback on writing.

Methods

A small (n=32) isolexical (Oakey, 2009) collection of screencast video (called video in much of the rest of the study) and text feedback was obtained with informed consent under university IRB approval as part of a larger study of student use and perceptions of screencast and text feedback. The subset of feedback used in the present study consisted of 16 text and 16 video files created by a single reviewer (the researcher) for eight students on practice Test of English as a Foreign Language (TOEFL) essays in an intermediate ESL writing course taught by a cooperating instructor. The reviewer and the students had not interacted prior to the study; thus, the reviewer-student relationship was not built through class interaction as it might be with an instructor. Since the feedback was created for a study of student perceptions and use of feedback and not for a study of the feedback itself, the researcher was not considering APPRAISAL resources when creating the feedback. Instead, the feedback was provided naturally for revision

without attending to potential differences in mode. The present analysis surfaced through later examination of this feedback and serves as a follow up study of the feedback while demonstrating the potential of the APPRAISAL framework.

Feedback was given under a crossover design as seen in Table 3.1. Half of the students received screencast video and half received text feedback on each assignment. This included two video and two text feedback files for each student across four assignments with the mode (video or text) switching for students at the halfway point. The feedback was used for revision and was thus formative in nature rather than summative and consisted of a mix of global and local feedback for this purpose.

Table 3.1. Feedback mode by assignment

_	Assignment			
Student Group	1	2	3	4
A (n=4)	Video	Video	Text	Text
B (n=4)	Text	Text	Video	Video

Video feedback consisted of a screencast of the student text on the computer screen with audio commentary. The video contained no written comments, color-coding, strike-throughs or other written or visual marks beyond the mouse movements and apart from the following. Before creating each screencast, the essay was skimmed and one space of highlighting was inserted near major areas to comment on. The highlighting did not span words and was not used to highlight errors or as an indirect form of corrective feedback. Not all comment areas had highlighting and not all highlighting was commented on. Each screencast began with the reviewer explaining that the small yellow highlights were only reminders for the reviewer. The screencast then proceeded linearly through the document and included global and local comments as well as recasts and

explanations. The audio was transcribed verbatim by Rev.com and each transcript was checked and edited by the researcher. Transcripts aided in coding though the original screencasts were also referred to.

The text feedback was given in MS Word using track changes and inserted comment bubbles. It included global and local comments with both direct changes and metalinguistic explanations. The majority of this feedback appeared in comment bubbles but some was in end comment form as well. The text feedback was extracted into text files before being coded.

Comments had a similar global (larger or reoccurring issues including organization and level of detail) and local (sentence level or below such as grammar, word choice and mechanics) distribution between the modes. For the feedback used in this study, the text feedback contained 79% local comments and 21% global while the video contained 77% local and 23% global. Students were successful in revising with the feedback at similar rates. For the subset of feedback used in the present study, local feedback was successfully applied at nearly identical rates for both modes (88% text, 87% video) while global feedback was applied successfully 52% of the time with text and 67% in video. However, global gains with the video feedback amongst individual students ranged from 4% to 38%.

Data analysis

The feedback comments were coded in MS Excel for instances of ATTITUDE with GRADUATION and ENGAGEMENT. During coding, all systems of ATTITUDE were considered, but when no JUDGEMENT was found and only one instance of AFFECT was found, the analysis focused only on APPRECIATION. A simplified coding scheme was used

to code APPRECIATION. The object of APPRECIATION was coded for each instance. The next step in the analysis collapsed objects into two categories: suggestion or student text as seen in Table 3.2. The polarity of each instance of APPRECIATION was also coded as positive or negative. For instance, 'more details would be good' would be coded as positive APPRECIATION (good) of a suggestion (more details), but 'this sentence isn't clear' would be coded as negative APPRECIATION (not clear) of the student text (this sentence). APPRECIATION was also coded for GRADUATION on a simplified numeric scale of 1-low to 5-high, as seen in Table 3.3, which was collapsed into low (1 or 2), neutral (3) and high (4 or 5) in the later analysis for simplified presentation of results. Low graduation indicated a degree of mitigation, such as could be a little clearer instead of confusing, whereas high graduation denoted intensified statements, such as extremely difficult to understand.

Table 3.2. APPRECIATION coding categories and examples

Polarity	Object	Definition	Examples
Positive	Suggestion	Referring to future revised versions of all or part of the draft	A little <u>more detail</u> may be helpful.
Positive	Student text	Referring to all or part of the current draft.	Good <u>transition</u> . Nice <u>organization</u> .
Negative	Student text	α α	This part of the paragraph gets confusing.

Table 3.3. GRADUATION coding examples

GRADUATION Level	Examples
1- lowest	Might be Ok
2- lower	Not bad, good for the most part, fairly, could be a little clearer
3- no GRADUATION	Good, Okay, not clear, unclear, confusing
4- higher	Great, really good, really, very
5- highest	Excellent, very advanced, extremely difficult to understand

ENGAGEMENT was coded according to the network categories in Martin and White (2005, p. 134) as seen in Figure 3.1. Only diglossic ENGAGEMENT was coded in the current study with later analysis focusing primarily on the larger categories of contract (disclaim/proclaim) and expand (entertain/attribute) as seen in Table 3.4. Given the wide range of lexicogrammatical features that make up APPRAISAL and the difficulty of deciding what 'counts' as a word in the spoken comments of the video feedback, frequency counts normed to word counts were not used. Instead, the proportional breakdown of types of APPRECIATION, GRADUATION and ENGAGEMENT in each mode of feedback were compiled and compared to give a picture of how APPRAISAL is used in each mode. To expand the analysis, imperatives were also later coded for comparison.

Table 3.4. Coded categories of disglossic ENGAGEMENT with examples

Category	Types	Definition	Examples in Feedback
Contract	Disclaim	closing down the space for dialogue/other opinions in the text by making statements to deny (using no/not) or counter (however/but)	However, this does not say that. This doesn't work
	Proclaim	closing down the space for dialogue/other opinions by making pronouncements, concurring, or conceding (often followed by a counter)	This is unclear.
Expand	Attribute	maintaining space for dialogue making neutral statements that acknowledge authorship by reporting what someone else has said or referencing another text, or statements that report the statements of someone else while distancing them from the speaker/writer	Here we have, you say, it says
	Entertain	opening space for dialogue by positioning the speaker/writer as one of many possible opinions often through directives (suggestions such as you could, you need to) or using lower modality (could, might), evidentials or questions	You could, I might, it seems, I think

Trustworthiness

Prior to and during coding and analysis steps were taken to ensure trustworthiness. Before and several times during coding the researcher engaged in peer debriefing with two researchers familiar with the APPRAISAL framework. These discussions covered adapting the framework to the context of feedback in addition to checking that coding seemed consistent with other interpretations. In addition, a second

rater, a non-native speaker of English familiar with the APPRAISAL framework but not one of the peer debriefers, coded a random selection of 10% of the data independently from segmented transcripts without consulting videos or student texts directly. A comparison of the coding showed 100% agreement with the researcher on APPRECIATION polarity and object and contract/expand categories of ENGAGEMENT as well as 98% agreement on specific types (proclaim/disclaim/attribute/entertain) of ENGAGEMENT. The researcher coded all of the data.

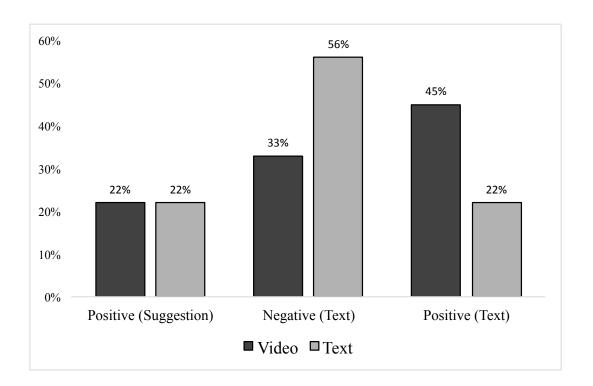
Findings

Analysis of APPRECIATION and ENGAGEMENT showed differences across the screencast and text feedback. The findings from the analysis of APPRECIATION, including GRADUATION, are discussed first, followed by the results of the analysis of ENGAGEMENT resources.

APPRECIATION in screencast and text feedback

APPRECIATION showed a difference in how screencast video and text feedback presented evaluation in the text. APPRECIATION, which indicates the positive or negative quality of things, was found in three patterns: the positive APPRECIATION of a suggestion, the negative APPRECIATION of the student text, and the positive APPRECIATION of the student text. Overall, APPRECIATION was used to show a positive evaluation more often in the video (67%) than in the text feedback (44%). With both the text and video using 22% of their respective APPRECIATION resources for positive APPRECIATION of suggestions, the differences stemmed from the evaluation of the student texts. The video was more positive towards the student text using 45% of resources to give a positive evaluation of the student text while the text feedback did so only 22% of the time, as seen in Figure

3.2. The text feedback, on the other hand, devoted the majority of its APPRECIATION resources, 56%, to negative APPRECIATION of the student text, compared to just 33% of the same in the video feedback. The greater proportion of positive APPRECIATION of student text in the video and more negative APPRECIATION in the text was consistent over all four assignments. The proportion of negative APPRECIATION for each assignment can be seen in the box plots of Figure 3.3. It is clear that while the proportions varied for each assignment, the percentages of negative APPRECIATION in the text were generally higher than those in the video.



 $\label{eq:control} \textbf{Figure 3.2. Distribution of positive and negative APPRECIATION resources by object of APPRECIATION \\$

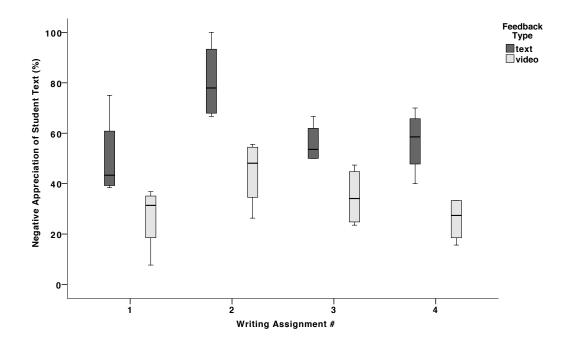


Figure 3.3. Side-by-side box plots of percentages of negative APPRECIATION of student texts in video and text feedback by assignment

This higher proportion of positive APPRECIATION of the student text could be seen as parallel to the higher rate of praise in video feedback seen in other studies, such as Borup, West, and Thomas (2015). This supports the idea that the medium of screencast may push instructors to be more positive as suggested by instructors in the study by Vincelette and Bostic (2013). The lower percentage of positive APPRECIATION in the text feedback may have stemmed in part from limited visual space leading to prioritization of critical comments. For instance, lesser positive comments might never be written down whereas they may come more naturally in the spontaneous, and perhaps more interpersonally focused, video. These might include spontaneous comments that arise while reading, such as 'good' as a response to a specific section of the text almost as a form of back-channelling between the text and the reader similar to that seen in Harper et al. (2015). Such behaviour likely contributed to the higher overall positive APPRECIATION.

GRADUATION of APPRECIATION in screencast and text feedback

The GRADUATION of APPRECIATION reveals how mitigated or strengthened these statements were. All APPRECIATION was more mitigated (lower GRADUATION values) in the video than the text. In Figure 3.4, the GRADUATION scores have been collapsed into low (1 or 2), neutral (3) and high (4 or 5) for presentation purposes. The negative APPRECIATION in the text, as can be seen in Figure 3.4, had higher GRADUATION values than such APPRECIATION in the video feedback. More than half of the video feedback had low GRADUATION, suggesting that most negative APPRECIATION in the video was lowered, or hedged, in some way. Often these added modifiers such as 'a little' to lessen the strength of a criticism. For instance, the video frequently makes comments about the texts coming across as 'a little bit unclear,' or that at a particular part it becomes 'a little confusing.' It also lessens the strength in other ways, for instance by calling a phrasing or word choice issue "probably not the most common way to talk about that". Text feedback on the other hand, tended to lack GRADUATION with the majority of the text feedback receiving a GRADUATION score of neutral (3 on the 5-point scale). These did not hedge criticism and instead frequently called the text simply 'not clear', 'unclear,' or 'confusing.' The overall lower GRADUATION in the video feedback may point to the greater attention to the interpersonal aspect of the mode as comments become naturally more hedged to mitigate negative feedback, as explained by Mann (2015), much like they would in face-to-face conversation.

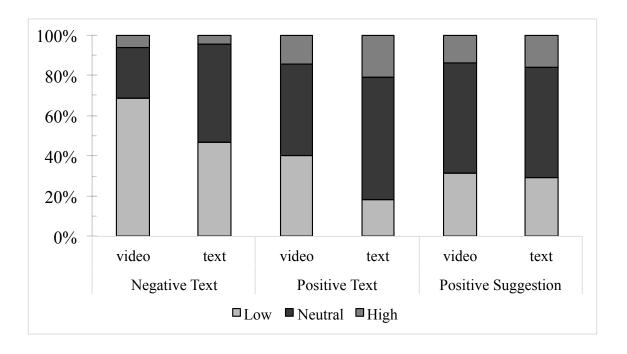


Figure 3.4. GRADUATION of APPRECIATION across video and text feedback

The positive APPRECIATION of suggestions looked nearly identical between the text and video feedback in terms of GRADUATION. However, when it came to positive APPRECIATION of the student text, more was once again mitigated with lowered GRADUATION in the video than the text. The video sometimes lessened the force of positive statements about the text using modifiers such as 'pretty', calling elements in the text 'pretty clear' or 'pretty good'. The video would also point out the positive elements in the text before making suggestions or pointing out weaknesses. Frequently this created lowered GRADUATION of positive APPRECIATION of the text. Such utterances would commonly limit the scope of a positive comment using 'up until', for example, 'it's a good sentence all the way up until I get to "more". Sometimes lowered GRADUATION would come through the lexis, such as using 'not bad' or 'okay' as weakened forms of good. These would often be followed by a counter using 'but', such as 'this connection is okay, but it's not as strong as it could be'. Note that this differs from the neutral use of

okay to mean correct or without the counter. The text had proportionally more neutral and slightly more heightened GRADUATION of the positive evaluation of the student text. The few positive statements in the text feedback tended to call elements of the student text 'good', such as 'good point' or 'good transition'. The comparative abundance of positive feedback found in the video may point to interpersonal aspects of the mode where the reviewer may try to make the student feel better by employing strategies similar to those in conversation. This includes pointing out more strengths and including positive comments to counter negative feedback. Such strategies may be employed or may appear less frequently in the composed and space-limited text feedback. This, coupled with the lower GRADUATION of negative feedback in the video, may be further linguistic support for the perceptions that video feedback is more conversational in nature (Elola & Oskoz, 2016; Mann, 2015; Silva, 2012) and more attuned to the interpersonal needs of students (K. Hyland & Hyland, 2006).

Engagement in screencast and text feedback

Elements of interpersonal considerations and a conversational tone were also present in the use of ENGAGEMENT resources in the feedback. Engagement reveals how other voices and perspectives are addressed in the text. The results here are discussed in terms of percentage of instances of ENGAGEMENT resource use coded in the text. The vast majority (95%) of ENGAGEMENT resources in the video feedback were expanding resources. The use of ENGAGEMENT resources in the text was more mixed with 62% expansion and 38% contraction resources. Even this initial picture, seen in Figure 3.5, suggests that the video feedback may have allowed somewhat greater space for dialogue and alternative opinions and explanations.

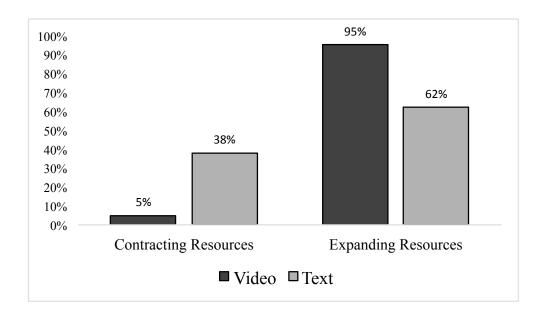


Figure 3.5. Proportional distribution of expanding and contracting ENGAGEMENT resources by mode of feedback

One level deeper into the analysis, this greater diversity in ENGAGEMENT resources in the text feedback continued as can be seen in Figure 3.6. The expansion resources used in the text were split with 25% of all resources devoted to attribution, such as 'you say', and 37% to entertain. The division of ENGAGEMENT resources in the video feedback was much more heavily weighted toward entertain with 75% of ENGAGEMENT resources overall being used to entertain other ideas in the text. This positioned the reviewer as one of many possible perspectives by using phrases such as 'I think', 'it looks like' or 'it sounds like'. Frequently, entertain was used in the video to offer possibilities for revisions such as "I might" or "you could" often with more than one option included. However, this use was not seen in the text feedback. Somewhat similar to the text feedback, about 20% of ENGAGEMENT in the video was attribution. A major difference comes in the use of contracting resources as the text relied heavily on disclaiming (28%) with a lesser use of proclaim (10%) whereas the video relied only on disclaiming (5%) for its contracting resources. In the video, disclaiming was often seen in the form of a

counter, typically statements following 'but' or 'however'. The clear predominate use of entertain in the screencast video feedback shows that the video was particularly open to other possible explanations and perspectives.

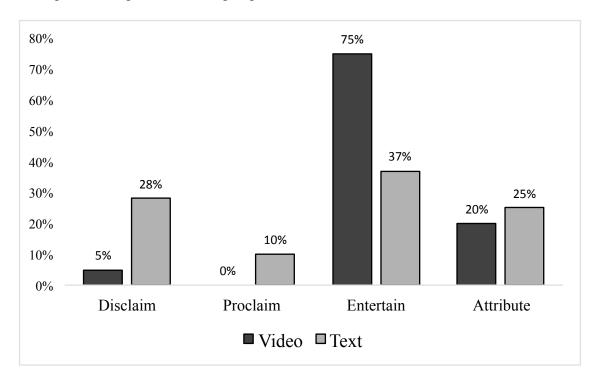


Figure 3.6. Proportional distribution of ENGAGEMENT resource types in video and text feedback

A specific variety of ENGAGEMENT resources within the entertain branch are those used in giving directives. Directives in this sense are hedged suggestions such as 'you might want to say...' or 'I might take out'. Directives contrast with imperatives such as 'take out'. These directives and imperatives were coded after finding such a high percentage of resources used to entertain. Directives made up 50% of all ENGAGEMENT resource use in the video feedback but only 10% of those in the text feedback. Directives and imperatives were then compared as a percentage of total instances of directives and imperatives in each mode as seen in Figure 3.7. The results show striking contrast in the use of directives and imperatives between the two modes of communication. In the text

feedback, the breakdown was weighted heavily towards imperative use where 83% were imperatives and only 17% directives. This is a near reversal of the 79% directives and 21% imperatives found in the video feedback. Thus, it appears that the text feedback was more often telling students what to do whereas the video feedback was offering possible suggestions and opportunities for the students to make improvements and changes to the work.

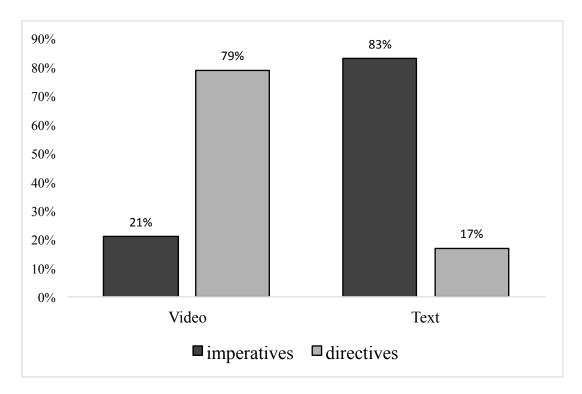


Figure 3.7. Proportional distribution of imperatives and directives in text and video feedback

Conclusion

The application of the APPRAISAL framework has shown the text feedback to use more contracting resources and devote a greater percentage of its ENGAGEMENT resources to imperatives than the video. Text feedback was largely negative in its use of APPRECIATION and showed less mitigation of negative evaluation of the student text. This is in keeping with the perceptions noted in previous studies of text feedback being more

direct and lacking positive comments (e.g. Elola & Oskoz, 2016). The video feedback, on the other hand, was more positive overall toward the student text and used lower GRADUATION when it did offer negative evaluations of the student text. It used directives and expanding resources heavily, especially those used to entertain. These elements combined show a greater consideration of the interpersonal aspects of the communication, perhaps contributing to or due to the conversational feel (Mann, 2015; Silva, 2012) and supportive, friendly, personal nature (Borup et al., 2015; Harper et al., 2015; O'Malley, 2011) of video feedback noted in previous studies.

Positioning and purpose of feedback

Taken together this analysis under the APPRAISAL framework reveals the position of the reviewer and the place of feedback. In the text feedback, the language use puts the reviewer in a position of authority. The lack of space for dialogue and the use of imperatives suggest that the reviewer is the one voice that matters and that statements are definitive. The feedback then gives commands and information, seeming to value correctness. This could suggest to students that the aim of the feedback is to correct their paper and that this is a single authority of correctness. The video feedback shows distinct contrast, as the language resources used instead position the reviewer as one of many possible perspectives through the use of language resources that entertain possibilities and other opinions. The lower graduation of negative appreciation of the student texts demonstrated mitigation strategies that consider the interpersonal needs of students since an abundance of unmitigated negative feedback could overwhelm students (K. Hyland & Hyland, 2006). The feedback offers advice and suggestions and in doing so, it seems to place value on choice, suggesting that the writer may have many choices and that the

authority remains with the author as to which choice to make. This contrasts with the single correct choice highlighted in the text feedback. These results suggest that video feedback may better consider the interpersonal needs of students and in doing so may mitigate the demotivational factors often struggled with in text feedback.

Further, this application of the APPRAISAL framework shows that a simple choice of mode can lead to changes in the nature of feedback and the position of the reviewer. This increased understanding of how mode may impact feedback can be important for instructors. In considering technological modes of feedback in light of these results, instructors may find one mode of feedback better aligned with their teaching philosophy and assumed role as an instructor.

In the analysis, these roles for the reviewer and the feedback were not premeditated, were not specific to the student paper, the time in the study, the writing prompt or course goals. They exist strictly as revelations based in the linguistic analysis of a highly controlled mini corpus of the feedback itself. It appears these differences may naturally be evoked by the mode used to create the feedback.

This study has shown that when other parameters (e.g., reviewer, students, topics, order, goal) are held constant to a reasonable degree, varying only the mode of feedback may change the language of the feedback and in doing so positions the reviewer and the role of feedback differently. Hence, it is possible that while both modes may be used for a range of purposes, perhaps instructors can match the mode of their feedback to their perceived roles as instructors and the role they seek for their feedback. Such a concrete change is easier to consciously implement than a constant monitoring of the type of feedback one gives or the language choices one makes. Further studies of expanded

corpora of feedback could confirm the effects found here. It may be that instructors valuing correctness and situating themselves in a position of authority on this correctness may find written feedback a better fit. However, those with the intent to keep authority for writing in the hands of their students, who see language as a series of choices and who wish their feedback to be seen as enabling that choice and acting as one of many possible sources of feedback and one of many possible perspectives may find video feedback a better fit.

It could be in part for this reason that previous studies (e.g., Ducate & Arnold, 2012; Elola & Oskoz, 2016) have, while falling short of recommending video for local corrections, offered the suggestion that video may be a better fit for complex issues and global feedback. It may not be the case that it is necessarily a global vs. local issue but one where the natural primary positioning of the medium lends itself to correct errors or provide options and opinions. If local feedback is viewed strictly as the correction of errors and mistakes, it makes sense that a practitioner may prefer to use a mode that positions their feedback as the single correct solution to a problem and the instructor as the authority on the matter. However, local feedback can also be seen as an opportunity to engage with a student for learning purposes where explanations might be valued. Local issues such as word choice may have a range of suitable alternative options. In a situation that seeks to put change in the hands of the students, video may offer a tendency towards a positioning that better accommodates that role of feedback. Thus, the results of the present analysis, through the APPRAISAL framework, offer greater insight into these two modes of technology-mediated feedback and by doing so, offer instructors an informed perspective from which to consider their choice of technology in giving feedback.

Considerations for future work

Despite the small scale of the present exploratory study, it offers several insights and opportunities for instructors and researchers concerning electronic multimodal feedback. While further study is needed before broader generalizable conclusions about the differences between modes of feedback may be drawn, the study has shown the potential of APPRAISAL analysis for analysing multimodal feedback. Through this analysis, it showed how feedback differed across two modes of feedback even when given by the same reviewer and balanced for student and assignment. In doing so, it gives theoretically grounded support to the perceptual differences noted in other studies. It also offers instructors insight into how their choice of technology might influence their feedback, suggesting instructors may be able to match tools to their pedagogical intents.

Further, the present study provides a template for analysis that can be applied across multiple modes and contexts of feedback. If replicated in other contexts and with other instructors, even on a similarly small scale, the results might strengthen one another and provide a fuller picture of the implications of technological mode choice for feedback. Beyond this, the analytical techniques presented in this study can be extended to other modes of technology-mediated feedback. Future studies have a wealth of questions that could benefit from such analysis. For instance, how do audio, screencast video, webcam video, hand written and digitally written modes of feedback compare in their use of evaluative language? Since APPRAISAL and SFL allow for analysis of multiple modes of communication, how can future studies best harness this capability for the systematic analysis of multimodal electronic feedback?

The feedback in this study was comprehensive formative feedback provided strictly for revision, not grading, purposes for students in an intensive English program at

the college level in the United States. Other studies could consider expanding such analysis to other contexts such as community college settings, foreign language and developmental writing classes, high school or graduate level writing and contexts in other countries. Future studies could also look at how summative or selectively formative feedback might vary across such mediums. Or given that some instructors focus primarily only on global or only local or only corrective feedback at given stages of writing, studies could investigate the effects of mode choice under these controlled feedback conditions.

The text and video feedback in this study represent highly parallel examples that offer balance in writing prompt, student group and timing while being given by a single reviewer in an attempt to increase comparability. However, the present study considered only a small sample of feedback on a single controlled type of writing and did so without natural student-teacher relationship development. This helped isolate the effects of mode, but did not allow for a study of the classroom environment or the effects of studentteacher relationship. Given the interpersonal considerations evident in the video feedback in the present study, an understanding of how use of this mode might impact or be impacted by development of student-teacher relationships and subsequent trust could be worth exploring in future work, perhaps with more ecological models (e.g., Cooper, 1986). Future studies could consider more highly contextualized settings in naturalistic environments where instructors work with students and assignments over a greater span of time. Additionally, with this being the reviewer in this study's first venture into screencast feedback, the study did not capture how such feedback might change with prolonged use. Future studies could consider longitudinal analysis of instructor comments in multimodal electronic feedback. Might there be changes even in the text feedback instructors provide once they have become accustomed to screencast feedback?

Writing and language instructors come from a broad range of backgrounds and teach in a range of contexts. While the controlled nature of the present study limited the analysis to feedback given by a single reviewer, which detracts from potential generalizability, future research might consider such analysis on a larger scale with multiple instructors and more students. Including instructors from different cultural, linguistic, and educational backgrounds with different comfort levels and proficiency with technology or spoken language might also provide further insights. Inclusion of instructors with different pedagogical intents for their feedback or different teaching philosophies might lend other insights into the process. It might be interesting to see how closely the instructors' use seems to align with their intended positioning across modes.

The present study has only begun to delve into the insights that SFL has to offer the study of feedback and has offered only a beginning of an understanding of how our technological choices can impact our language and work in feedback and writing. The results of this study suggest that the choice of mode in giving feedback may have implications on the position of the reviewer and the role of feedback as revealed through language. The study's methods have suggested the potential of the APPRAISAL framework as an analytical tool rooted in linguistics for the study and understanding of multimodal feedback. The current results suggest that APPRAISAL may reveal the differences between modes that may be otherwise difficult to articulate and provides a sound theoretical basis for analysing and understanding the perceived differences in language use. Future studies might consider an expanded use of this framework or a specific adaptation of it for

feedback analysis. With the knowledge cultivated here and in future studies, writing instructors will be able to make more informed choices to match the tools and modes of communication they use to their intended positioning and pedagogical purpose.

CHAPTER 4. HOW TECHNOLOGY CHANGES LANGUAGE AND FEEDBACK: APPRAISAL IN TEXT AND SCREENCAST FEEDBACK ON ESL WRITING

A paper to be submitted to Computers and Education

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Abstract

An understanding of the impact of our technological choices in giving feedback has become a necessity for instructors. However, few studies have explored how technology choices might be changing the nature and language of feedback. The present study investigates how the modes of video and text change the language in feedback and by doing so, shift its interpersonal aspects. The study employs an adaptation of the APPRAISAL framework, situated in systemic functional linguistics (SFL), to investigate parallel collections of screencast and MS Word feedback from three ESL writing instructors over four assignments in intact classes. Three subsystems of APPRAISAL are used in the study: ENGAGEMENT-how other voices are considered in the text, ATTITUDEhow evaluation is conveyed and *GRADUATION*- mitigation or intensifying. The sum of this analysis provides understanding of the position of the reviewer and the role of the feedback itself and how they shift across modes. Text feedback was found to be more negative and positioned the instructor as a single authority while video feedback better preserved student autonomy with a balance of praise and criticism, offering feedback as suggestion and advice and positioning the instructor as one of many possible opinions. Understanding these differences can help instructors choose technology that will best support their pedagogical purposes.

Student autonomy and ability to maintain control can be critical in feedback on student work, especially written work. It can be provided or revoked in the wording of comments, the way instructors approach a piece of writing and perhaps through the technology used to create and deliver the feedback. As Tiffany C. Martínez recounted, the wording and context of feedback conveys an instructor's attitude and can have a significant impact on a student: "This is not your word.' It left me no room to defend myself. I had no agency in that moment. It was just the professor telling me that I was cheating, that this language was too much for someone like me. I feel like professors just need to give some agency to the students and have a conversation with them before accusing them of something this dramatic" (Zamudio-Sauréz, 2016 para. 11). The affective impact of feedback can be significant with students reporting internalizing harsh negative comments to the point where even adult students feel incapable, disrespected and unmotivated (Treglia, 2008) and students with low self-esteem feel defeated and may even drop out of a course (Young, 2000). Negative feedback can be debilitating (Kasper & Petrello, 1996; Sullivan, 1986) as students often put off revisions (F. Hyland, 1998), get upset and frustrated (Mahfoodh & Pandian, 2011) or completely shut down and ignore feedback (P. Ferguson, 2011; Mahfoodh & Pandian, 2011) when they regard it as too negative. Positive comments, on the other hand, can build confidence and help less confident students move forward, as they can add to self-efficacy (Hattie & Timperley, 2007). However, on their own and directed towards the student and not the student's performance positive comments are unlikely to lead to learning (Hattie & Timperley, 2007) and if general positive comments are the only feedback, it can also lead to increased anxiety (Cleary, 2012). While instructors cannot always predict the impact their feedback will have on a student or the way their feedback is understood, instructors need to be aware of the way they convey their feedback and the way the technology they use to create and deliver that feedback impacts the message that they send.

Previous work has suggested that students perceive the affective impact of feedback differently depending on the technological mode of feedback. In particular, screencast feedback, where instructors record the student paper on the computer screen with audio commentary, has been perceived as conveying a more conversational tone (Anson et al., 2016; Warnock, 2008) that can be more welcoming and less condescending than written feedback (Anson et al., 2016). This mode of feedback has also provided for better student-teacher connections (Anson et al., 2016) and an enhanced a sense of instructor presence (Grigoryan, 2017; Harper et al., 2015). Screencast feedback has been perceived as more personal (Ali, 2016; Anson, forthcoming; Anson et al., 2016; Edwards et al., 2012; Harper et al., 2015; J. Sommers, 2013; Warnock, 2008) and as offering more explanation (Elola & Oskoz, 2016; Thompson & Lee, 2012) and praise (Ali, 2016; Edwards et al., 2012; Elola & Oskoz, 2016). Also similar to audio feedback (Ice et al., 2007), students have perceived screencast feedback as being more caring, considerate, friendly, encouraging and supportive (Anson, forthcoming; Edwards et al., 2012; Ryan, Henderson, & Phillips, 2016; Thompson & Lee, 2012) than written. Given the potential demotivating factors in feedback, the promise of technology to mitigate negative effects and prompt positive reactions in this way is of importance to learning and teaching.

Interpersonal aspects of feedback

Student response to feedback is a complex process that involves a number of factors including degree of trust, student-teacher relationship and wording of comments

(G. Lee & Schallert, 2008b) as well as contextual and individual factors (K. Hyland & Hyland, 2006). Emotions are a natural part of the feedback process (Värlander, 2008) and students experience a range of emotional responses to feedback that can affect how well they understand and use written feedback (Mahfoodh, 2016). These emotions may be positive such as acceptance, satisfaction and happiness or negative including frustration, disappointment and rejection (Mahfoodh, 2016) and can vary with feedback types. For instance, students in Mahfoodh's (2016) study generally liked receiving praise and particularly disliked and at times rejected coded error correction. Negative feedback can be detrimental to student motivation, performance and affect, especially in students with low self-efficacy (Hattie & Timperley, 2007). Because of the potential for negative feedback to provoke unproductive or simply negative reactions in students, mitigating negative feedback is expected. Indeed, in a move analysis of written instructor feedback, Yelland (2011) found that instructor feedback was particularly concerned with the management of negative feedback.

In investigating interpersonal aspects also through feedback rather than student perceptions, K. Hyland and Hyland (2006) and F. Hyland (2000) identified several strategies second language writing instructors employed to combat the potential negative effects of written feedback. These principally included pairing criticism with praise and hedging comments although instructors would also at times use personal attribution or question forms. However, instructors were unlikely to mitigate most comments concerning form and academic concerns, areas which are a common focus for feedback in second language writing contexts (K. Hyland & Hyland, 2006). K. Hyland and Hyland

(2006) noted that to a degree, instructors aware of the potential interpersonal effects of their feedback and the potentially demotivating effects.

These demotivating effects can be quite significant as students have reported feeling misjudged, disrespected and crushed by unmitigated harsh negative comments (Treglia, 2008). While mitigation didn't impact the extent or quality of revisions (Treglia, 2009), Treglia (2008) reported that first and second language composition students perceived the use of mitigation strategies as showing respect and politeness and found them to positively contribute to motivation. Students highlighted the agency they felt they had when comments employed mitigation strategies, such as hedging. Emotional considerations, mitigation of negative feedback and strategies to preserve student agency are key interpersonal considerations for feedback.

Interpersonal considerations, however, may vary in part with the mode of feedback. The nature of screencasts, in particular, has been seen to contribute to the interpersonal or relational aspects of feedback as it may make instructors naturally more aware of interpersonal dimensions of communication (Anson et al., 2016; Crook et al., 2012; Cunningham, forthcoming). Students in Anson et al.'s (2016) study subsequently felt more respected and guided rather than criticized when receiving screencast comments (rather than text), which allowed them to better focus on their feedback and revisions.

The interpersonal dimension of feedback is clearly perceived by and important for students. The aforementioned studies of student perceptions of feedback have given key insights into this aspect of feedback. However, research has not yet fully explored the interpersonal dimension of feedback; it is not well understood how these perceptions arise across modes or if there are notable differences in feedback across modes.

The same argument conveyed in writing and video tends to have different emphasis, structure and delivery by mode (B. E. Smith, Kiili, & Kauppinen, 2016) and speech and writing, more broadly, are known to differ linguistically (Biber, 1988; Biber et al., 2002; Halliday, 2002; Sperling, 1996). Thus, it seems likely that differences between screencast and text feedback could be identified through an analysis of the feedback itself or the language resources employed in the feedback. A systematic analysis of feedback across a balanced sample of text and screencast feedback itself could offer a complementary perspective to student-reported perceptions and provide further understanding of how technological mode affects interpersonal aspects of feedback.

Further, apart from studies of perceptions (e.g. Anson et al., 2016; Harper et al., 2015), few studies that investigate screencast feedback have focused on interpersonal aspects. While studies of screencast feedback frequently cite perceptual differences, they are often unable to establish significant differences between the feedback provided by the two modes. For instance, in a study of screencast and text feedback in a Spanish foreign language class in the United States, Elola and Oskoz (2016) found no clear difference in amount or manner of feedback given by mode. Students, however, found the screencast feedback to offer more praise and more detailed explanations of global feedback while they found the text feedback to be impersonal, rigid and unclear.

In a recent small-scale study of screencast video and text feedback in an ESL writing class, Cunningham (forthcoming) demonstrated the potential of potential of using a functional linguistic perspective to investigate multimodal feedback such as screencast. The results showed differences in the positioning of the reviewer and the purpose of feedback as seen through the language resources employed in the feedback. The

screencast video feedback was shown to offer a greater balance of praise and criticism and to position the reviewer as one of many possible opinions and feedback as offering suggestions and choice. The text feedback more often positioned the reviewer as a source of authority and feedback as correction. While these findings are encouraging, the study considered the feedback of a single reviewer for a small number of students in an intact class the reviewer was not teaching. While it did consider feedback on four assignments, the assignments were simple TOEFL practice essays and did not capture the more complex assignments often seen by students in their coursework. Thus, it is unknown if such results might hold true for other instructors, assignment types or with instructors in classroom contexts where complex student-teacher relationships develop throughout a course. With the promise of potentially finding an empirical basis in the feedback itself for the interpersonal differences often perceived in screencast and text feedback, there is a need for studies to similarly consider contextualized instructor screencast and text feedback in more classes over a longer period of time.

In an effort to expand our understanding of the interpersonal dimension of screencast feedback, the present study employs a similar functional linguistic perspective through the APPRAISAL framework to investigate evidence of the interpersonal in screencast and text feedback in three university level ESL writing courses.

Theoretical and conceptual framework

Applied linguistics, rooted in language rather that a specific mode or text type, provides a theoretically grounded framework not restricted by medium and able to offer comparisons across different types of feedback. Specifically, Systemic Functional Linguistics (SFL) (Halliday & Matthiessen, 2004, 2014) offers a strong, theoretically

grounded, functionally focused, flexible framework that can help elucidate the language choices evident in any mode. Theoretically, SFL, here highly simplified, posits that we have a set of language resources (all possible ways an individual knows to articulate something) in our minds and from these, we make language choices (the things an individual actually says or writes). Context affects these choices and their interpretation to create meaning and function in particular ways.

With a focus on what language is doing and how it is doing it, an analysis based in SFL is often an analysis of the language choices that serve a particular metafunction: textual, ideational or interpersonal. The textual metafunction concerns how a text hangs together and its cohesion and coherence (Halliday & Matthiessen, 2014). The ideational metafunction focuses instead on the 'what' or the aboutness of a text. Most relevant to the aim of understanding technology-mediated feedback, the *interpersonal* metafunction centers on the 'who' of the text, specifically relationships and how they are constructed and managed through a text (Halliday & Matthiessen, 2014). The interpersonal, the area most likely to get at perceptual differences in text and screencast feedback, is analyzed through the language choices that contribute to this larger function (Halliday & Matthiessen, 2014). These choices are typically made up of the language resources of mood, modality and APPRAISAL (Derewianka, 1999a, 1999b; Halliday & Matthiessen, 2014; Martin & White, 2005). APPRAISAL, or the language of evaluation, has shown particular potential for giving insight into the interpersonal aspects of technologymediated feedback (Cunningham, forthcoming).

APPRAISAL

APPRAISAL use is described and analyzed through the APPRAISAL framework (Martin & White, 2005; White, 2015). This framework offers an approach for understanding how language is used in evaluation, stance, and the management of interpersonal positions and relationships (White, 2012c), making it an ideal candidate to capture the interpersonal considerations offered in an evaluative text type such as feedback. It has been applied widely to both written (Adendorff & Smith, 2014; Gales, 2011; Macken-Horarik, 2003; Martin, 2004; Martin & Rose, 2007; Pounds, 2011; J. Smith & Adendorff, 2014; White, 2012b) and spoken (Caldwell, 2009; Eggins & Slade, 1997; A. Ferguson, 2010) texts as well as student intercultural (Belz, 2003) and identity (Barletta et al., 2013; Kristjansson, 2010, 2013) development in second language learning contexts. Because of this balanced utility across modes and its focus on the evaluative and interpersonal aspects of language, the APPRAISAL framework can offer key insights and a nuanced understanding of the language resources used in text and screencast feedback.

The APPRAISAL framework has been detailed for specific text types such as narratives (Martin & Rose, 2007) and casual conversation (Eggins & Slade, 1997), but Martin and White (2005) and White (2012c, 2015), followed in the present study, offer broad detailed coverage of the core of the framework applicable to a range of contexts.

APPRAISAL (Martin & White, 2005) is made up of three systems--ENGAGEMENT,

ATTITUDE and GRADUATION--which are in turn composed of subsystems.

ENGAGEMENT

ENGAGEMENT (Martin & White, 2005), the first system of APPRAISAL, focuses on author positioning and how other voices are considered within a text. It allows for analysis of the amount of flexibility or space allowed for other voices and is discussed in terms of language resources that expand the space for dialogue or contract it. Each main clause can be coded for ENGAGEMENT. As seen in the network diagram in Figure 4.1, the first split in ENGAGEMENT is between monoglossic, those statements that do not acknowledge other voices and are considered single voice or bare statements, and diglossic, those that engage with or at least recognize other possible voices. With feedback, where the instructor is primarily engaging with the student text, diglossic ENGAGEMENT is likely more abundant.

Diglossic ENGAGEMENT is where the expansion and contracting of space for dialogue lies. Contracting resources can be thought of broadly as negative statements (DISCLAIM) and positive statements (PROCLAIM) that emphasize the author's position as the primary focus and authority and do not leave space for competing opinions. In written feedback these might include coded error correction, but also direct negative statements about the student or student text such as "this paragraph is unreadable!" that limit alternative assessments.

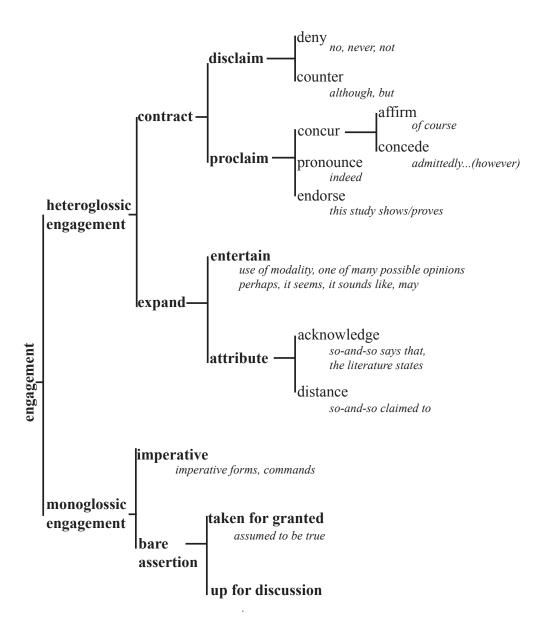


Figure 4.1. ENGAGEMENT network adapted from Martin & White (2005) Fig. 3.4 p. 134

Expanding resources leave room for other perspectives by positioning the speaker as one of many possible opinions (ENTERTAIN) or simply reporting of what another person has said (ATTRIBUTE). Statements in feedback that ENTERTAIN often take the form of suggestions such as "you could__" or reader response such as "I'm not sure if this part means X or Y." Attribution more often reports the content of an outside resource or

relates what the student has written such as "here you say ___." Expanding resource use seems less likely to lead to demotivational factors in feedback as it gives more consideration to the interpersonal needs of students.

Thus, the split between expanding and contracting resource use is of particular interest when investigating feedback. Direct challenges to a student through contracting resources can diminish student-teacher solidarity (Martin & White, 2005). While some degree of contracting resources may be needed to offer direct praise, direct negative statements can be particularly disheartening for students as seen in Treglia's (2008) study of written feedback. Further, a high use of contracting resources suggests the instructor has taken on a particularly authoritative role and that feedback may be suggesting a single correct way to proceed with revisions. This could make it difficult for students to feel they have agency over their work and may discourage a student from discussing or challenging the feedback that they receive. A high use of expanding resources, on the other hand, would instead promote student autonomy and agency in writing as the instructor becomes just one of many possible perspectives. Feedback in this case would be more likely to come as suggestions, offering students choices and possibilities. In this way, a higher use of expanding resources could be seen as preserving student agency over the text and by leaving space for alternatives and conversation, it might also promote further discussion of feedback.

ATTITUDE

In addition to ENGAGEMENT, an analysis of ATTITUDE (Martin & White, 2005), the next major system of APPRAISAL, offers promise for understanding technology-mediated feedback. ATTITUDE is composed of three subsystems: AFFECT, APPRECIATION and

JUDGMENT. These focus on emotion, object evaluation and behavior evaluation, respectively. Affect highlights the language resources used to express how someone feels about something or the positive or negative emotional reactions something provokes. This includes liking, wanting or hating something and generally covers feelings of (un)happiness, (dis)satisfaction, (in)security, and (dis)inclination (Martin & White, 2005). An investigation of Affect in feedback could show the feelings of an instructor and might reveal what an instructor finds upsetting.

APPRECIATION (Martin & White, 2005), on the other hand, focuses on the positive and negative evaluation of things. In the case of feedback, APPRECIATION would cover the many specific evaluations of the student text or suggestions. These would include REACTIONS to the text that concern the impact or quality of the work, such as "nice job!" APPRECIATION can also focus on COMPOSITION, such as balance, or how the work hangs together, and complexity, or how easy or difficult it was to follow. COMPOSITION (Martin & White, 2005) would then cover many comments made on student work including those related to grammar, organization, level of detail or clarity. VALUATION (Martin & White, 2005), the final type of APPRECIATION, would include evaluation of elements of the student work the instructor deemed effective/ineffective, unique/redundant or helpful/unhelpful. An understanding of APPRECIATION could show the amount and type of positive or negative evaluation of the student text found in the feedback.

JUDGMENT (Martin & White, 2005), in contrast to APPRECIATION, focuses not on an object but on the evaluation of behavior in comparison to a norm. In feedback, JUDGMENT would evaluate the student and the student's actions rather than the student paper or writing. For instance, saying that a student "copied" would be an example of

JUDGMENT whereas saying that a statement in the student paper was ineffective would be APPRECIATION. JUDGMENT comes in two primary varieties: SOCIAL ESTEEM and SOCIAL SANCTION (Martin & White, 2005). SOCIAL ESTEEM specifically considers social values and how well an individual aligns with them. These usually concern NORMALITY (correctness of behavior), CAPACITY (how capable, expert-level or competent someone is), and TENACITY (how dependable, hardworking and reliable someone is). SOCIAL SANCTION, on the other hand, pertains to more serious offenses and is common in dealing with rules and regulations. It covers VERACITY, or how truthful someone is, and PROPRIETY, how ethical or above reproach someone is. Thus, if an instructor says that a student copied or plagiarized, it would be an example of negative SOCIAL SANCTION since the rules of the context include specifically not copying another text without citation. However, saying a student did not work hard enough would be an example of SOCIAL ESTEEM, specifically TENACITY. In most cases of feedback, we would expect JUDGMENT to be uncommon, with evaluations instead focusing on the text as a work in progress and if any ATTITUDE is conveyed, it would be more likely to be APPRECIATION. A heavy use of negative JUDGMENT could have a negative impact on students and reveal negative instructor attitude towards the student.

In considering ATTITUDE, it is important to consider the type and subtype as described above. However, one must also consider the polarity of an instance of ATTITUDE. That is, was the statement expressing positive or negative ATTITUDE. Critically, one must simultaneously consider the object of the ATTITUDE, or what the ATTITUDE was conveyed towards. Was the statement discussing something in the student text, a suggestion, or the student? Positive APPRECIATION of the student text, for instance,

could be equated with praise such as "this is a clear thesis statement." Including analysis of the object allows for such statements to be separated from those concerning positive APPRECIATION of suggestions such as "writing out the full name here would be helpful." Analyzing positive and negative ATTITUDE towards the student text specifically could show a balance of praise and criticism, perhaps lending insight into common student perceptions through linguistic evidence.

GRADUATION

The systems of ATTITUDE and ENGAGEMENT are scaled by the final system of APPRAISAL, GRADUATION. GRADUATION allows for the strengthening or mitigation of ATTITUDE and ENGAGEMENT, similar to hedging and boosting (e.g., K. Hyland, 1998), through a number of contextually specific linguistic choices. These may include use of repetition, modal verbs, adjuncts or specific vocabulary. Lower GRADUATION offers mitigation while higher GRADUATION intensifies. For instance, saying "you might want to consider adding a few more details" would be lower GRADUATION whereas "you definitely need to add more details" would be higher GRADUATION.

GRADUATION applies in a contextualized manner and in both negative and positive polarity. For instance, with "good" as a neutral position, lower GRADUATION might include "okay" or "not bad," while higher GRADUATION could include "superb" or "excellent." Similarly, if "not clear" was the neutral position, lower GRADUATION might include "not as easy to understand as it could be" or "somewhat unclear" whereas higher GRADUATION would include intensified sentiments such as "extremely confusing" or "absolutely unreadable." GRADUATION of negative ATTITUDE in feedback is of particular interest since negative feedback mitigation is a key strategy in avoiding discouragement

from negative feedback (K. Hyland & Hyland, 2006; Treglia, 2008). In combination, the mitigation of negative feedback through lowered GRADUATION of negative ATTITUDE, the expansion of the space for dialogue through expanding ENGAGEMENT resources and a balance of praise and criticism through positive and negative ATTITUDE seem likely to promote student agency and help alleviate some of the potentially discouraging aspects of critical feedback.

An analysis of the three primary systems of APPRAISAL—ATTITUDE, ENGAGEMENT and GRADUATION—can allow for an exploration, description and understanding of the APPRAISAL resources used in a text, such as text or video feedback, and show to what degree these beneficial elements are employed. By showing how other voices are treated, objects and behaviors are evaluated, and emotions are conveyed, APPRAISAL analysis can reveal interpersonal positioning and nuanced evaluation as seen through the language choices evident in feedback. By doing so, it can offer new insights into modes of technology-mediated feedback such as MS Word comments and screencast videos.

Methodology

The present study employs the APPRAISAL framework in an effort to better understand the interpersonal dimension of screencast (video) feedback as it compares to MS Word comments (text feedback) in the context of three university level ESL writing courses. Specifically, it explores the following research questions:

- 1. How are APPRAISAL resources (ENGAGEMENT, ATTITUDE and their most common subtypes) used in text and video feedback?
- 2. How does this APPRAISAL resource use compare across text and video feedback?

Data collection

Text and video formative feedback provided with the purpose of prompting student revisions was collected from three instructors of university level academic ESL writing courses at a large university in the United States under IRB approval. The instructors included two teaching assistants (one American (A) and one international (B)) in the final semester of their TESOL MAs and one experienced American instructor (C), each teaching one (B and C) or two (A) sections of university level ESL writing courses. Instructors A and C taught an essay writing course while instructor B taught a paragraph writing course. Each instructor gave feedback to their classes across four major assignments over the course of a single semester as indicated in Table 4.1.

Table 4.1. Number of video/text feedback files per instructor by assignment

-		Assig	nment		_
Instructor	1	2	3	4	Total
A	17/17				34
В	7/7	7/7	7/7	7/7	56
С	6/6	6/6	6/6	5/5	46
Total	60	26	26	24	136

Video feedback consisted of a screencast recording of the student work on the computer screen with audio instructor commentary. No written feedback was given in the videos, but the mouse was used to gesture to parts of the writing being discussed. All three instructors were giving screencast feedback for the first time and gave the feedback using a provided copy of TechSmith's *SnagIt* screencasting software. Text feedback was given using the review features of Microsoft Word including inserted comments and tracked changes.

The data collection resulted in 68 text and 68 video feedback files as seen in Table 4.1. This included a total of almost nine hours of video feedback. On average each video was about seven and a half minutes long. Video length averages varied by instructor: A (5 minutes, 12 seconds), B (6 minutes, 26 seconds), and C (10 minutes, 57 seconds).

Data preparation

Before coding, the instructor comments were de-identified and extracted from the feedback files. Text feedback comments in comment bubbles and end comments were extracted and pasted into plain text files with samples of highlighted text in brackets. Intext actions were noted in brackets using the following notation:

Deletions: [deleted]	
Error Codes: [intextword intext]error code
Additions: [added]	
Replacements: [replaced with _]

The audio from video feedback files was extracted and sent to Rev.com for verbatim transcription. Each transcript was checked for accuracy by the researcher. The researcher de-identified the transcripts, fixed any inaccuracies, added emphasis and inserted timestamps and pause lengths using the transcription software F5. Transcripts were then exported as plain text files for coding.

Data coding

The plain text files were coded by the researcher in the UAM Corpus Tool (O'Donnell, 2014) while consulting the original feedback files as needed. Each file was coded for ENGAGEMENT, ATTITUDE and GRADUATION under the APPRAISAL framework.

ENGAGEMENT was coded along the ENGAGEMENT network adapted from Martin and White's Figure 3.4 (2005, p. 134) as seen in Table 4.2. Each main clause or action taken in the feedback was coded for ENGAGEMENT. Thus, the number of instances of ENGAGEMENT was approximately the number of clauses in the feedback. The reporting of results focuses on the split between contracting (DISCLAIM/PROCLAIM) and expanding (ENTERTAIN/ATTRIBUTE) resources.

Table 4.2. ENGAGEMENT codes and examples

Diglossic ENGAGEMENT				
Expanding:				
Type	SubType	Explanation	Feedback Examples	
A	Acknowledge	Neutral reporting	Say, you say, we have, it says, here you're saying, here you have, you've got	
ATTRIBUTE	Distance	Reporting with the aim of distancing often using the verb claim	Not found in feedback	
ENTERTAIN	Evidential	Down graduated and theoretical statements, some personalized views, some very lowered suggestions	It seems, it looks, I think, maybe, perhaps, if, then, you would	
	Question	Rhetorical & faux questions, prompting more, question forms only; not questions with forced answers	Is there anything else you can add to help your reader know what to expect? Do you mean 'painted'?	
	Directive	Dealing with obligation, choice and suggestions	You might, you could, you should, you must, you need to	

Table 4.2. ENGAGEMENT codes and examples (continued)

Contracting:			
Type	SubType	Explanation	Feedback Examples
Dragrana	Deny	Negations, deleting student text	Not, no, [deleted_]
DISCLAIM	Counter	Countering a statement, replacing text in feedback	But, however, [replaced with]
Proclaim	Pronounce	Making pronouncements, instructor makes clearly evaluative statements and especially those with emphasis, adding text to student text	GOOD!!!, This is a run on. Great Topic Sentence!, [added]
FROCLAIM	Concur	Affirm- affirming/agreeing with statements Concede- concessions, unwilling agreement, often precedes a counter	You have some good ideas, but
	Endorse	Endorsing statements/positions/ideas	
	Justify	Giving reasons	Because
		Monoglossic Engagement	
Type	SubType	Explanation	Feedback Examples
Imperative		Imperative/command form	Rewrite this, capitalize this, add two more paragraphs
Bare Assertions		Giving information apart from a text, here often definitions or general rules (not very common)	

Each instance of ATTITUDE was coded for polarity (positive or negative), object (student text, suggestion, student, instructor, task/assignment or other), ATTITUDE type (as seen in Table 4.3) and subtype. The subtypes for APPRECIATION, the most common type of ATTITUDE by far, are shown in Table 4.4 while the subtypes for the less common AFFECT and JUDGMENT are given in the appendix since the low number of these types of ATTITUDE did not allow for a thorough analysis of subtypes. The degree of GRADUATION from 1 (low) to 5 (high) as seen in Table 4.5 was also coded for each instance of

ATTITUDE. For simplicity, after coding these numeric GRADUATION codes were then collapsed into low (1 or 2), neutral (3) and high (4 or 5) GRADUATION. Lower GRADUATION included the use of modals such as "might" or "may," or words like "possibly" as well as lower order adjectives such as "not bad" or "pretty good" rather than "good." Higher GRADUATION included language to intensify such as "indeed" or "certainly" or higher degree adjectives such as "excellent" or "great" rather than "good."

The most common forms of ATTITUDE coded were APPRECIATION of the student text or an instructor's suggestion. For instance, in the statement "more details would be good," "more details" would be the object of APPRECIATION, so the object would be coded as a suggestion since "more details" is something being suggested not something already found in the student text. It is a projection into the future of what the text could be. The ATTITUDE type would be APPRECIATION since it is commenting of the quality of a thing and it would be positive (good) with neutral (3) GRADUATION. In the statement "this sentence isn't very clear," "this sentence" would be the object of APPRECIATION. Since "this sentence" is part of the student text, the object would be coded as student text. The APPRECIATION would be negative (not very clear), with the GRADUATION showing a degree of mitigation (not very) so it would be coded as a 2, or low.

Table 4.3. Definitions and examples of ATTITUDE type coding

Type	Definition	Examples from Feedback
AFFECT	Involving emotions, including want, hope, wish, happy, sad	I really like this sentence. You want to
APPRECIATION	Positive or negative evaluation of things	This is a great topic sentence. More details would be good.
JUDGMENT	ATTITUDE towards people and how they behave, especially in comparing actions against norms, involving ethics, etc. includes criticism, praise, condemnations, applauds behaviors, actions, deeds, etc.	You have not done the work expected of you. You copied.

Table 4.4. Definitions and examples of subtypes of APPRECIATION

Sub Type	Positive	Negative	Feedback Example
REACTION Often affect-like, IMPACT: did it grab me? (intense, remarkable, engaging), what initial reaction did it make?		IMPACT: did it grab me? Dull boring, tedious, uninviting, flat, unremarkable	This is great!
	QUALITY: did I like it? Okay, OK, fine, good, beautiful, appealing, how did I react emotionally towards it?	QUALITY: did I like it? Bad, plain, off putting, also emotional reactions	
COMPOSITION	BALANCE: How did it hang together? Balance, unified, proportioned, logical, consistency of ideas, length, organization COMPLEXITY: (most common in feedback), was it easy to follow? Simple, clear, detailed, intricate, precise, anything dealing with clarity, most grammatical feedback, good level of detail, etc.	BALANCE: How did it hang together? Unbalanced, contradictory, disorganized or poor organization, irrelevant, off topic COMPLEXITY: was it difficult to follow? Unclear, didn't understand, difficult to follow, grammatical errors including error codes, too simple, not enough detail,	Good organization, no error, good grammar, clarity, clear, long enough, detailed enough Confusing, difficult to understand, unclear, not clear, error codes, grammar problems

Table 4.4. Definitions and examples of subtypes of APPRECIATION (continued)

VALUATION	Was it worthwhile? Worthy, creative, original, innovative, unique, exceptional, authentic, real, valuable, genuine, helpful, effective	Shallow, reductive, insignificant, derivative, overdue, untimely, fake, shoddy, worthless, useless, ineffective, not worth looking at, etc.	Effective, good points, ineffective
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Table 4.5. GRADUATION coding examples

GRADUATION Level		Examples from Feedback
1		Might be OK
Low	2	Not bad, good for the most part, fairly, could be a little clearer
Neutral 3 Good, Okay, not clear, unclear, confusing		Good, Okay, not clear, unclear, confusing
4		Great, really good, really, very
High	5	Excellent, very advanced, extremely difficult to understand

Approximately 10% of the files (in text-only form, blinded to video/text mode) were coded independently by a second researcher to check coding scheme agreement. High percentage agreements were found for ENGAGEMENT (95% at the subtype level, 100% at higher levels) and ATTITUDE (97% at subtype level). All files were coded by the researcher.

Analysis

Per text counts of ATTITUDE and ENGAGEMENT codings (ex. number of instances of positive APPRECIATION of student text in each feedback file) were output using the UAM corpus tool. Percentages of ATTITUDE and ENGAGEMENT resources were then computed per text. Such measures show the distribution of the types of resources used when ATTITUDE or ENGAGEMENT is enacted. All per text counts were also normed to 100 instances of ENGAGEMENT (count of feature/count of total ENGAGEMENT instances*100)

similar to Eggins and Slade's (1997) percentage of clauses, to further allow for comparability across feedback files of different lengths. For ENGAGEMENT, these were the same as the percent of overall ENGAGEMENT. Means were computed for each instructor and averaged for totals to give balanced weight per instructor. Such quantitative comparisons are considered across modes (video and text) and by instructor with a focus on contracting/expanding in ENGAGEMENT and APPRECIATION in attitude.

The most prevalent resources with noticeable differences across modes (expanding resources in ENGAGEMENT, negative APPRECIATION of student text in ATTITUDE) were then investigated using three-block binary logistic regression to identify the degree of difference as an odds ratio between feedback modes (text and video) while accounting for instructor and assignment differences. The first block of the regression included only instructor variables. The second block added the assignment variables and the final block added the mode of feedback. This allowed for an investigation of whether or not the feedback variable added any value to the model after accounting for individual instructor and assignment differences.

Findings

The data coding resulted in 5,954 instances of ENGAGEMENT and 2085 instances of inscribed ATTITUDE. This included an average of 24 instances of ENGAGEMENT in each text feedback file and 62 in video across instructors, suggesting more clauses appeared in the video than the text. ATTITUDE was found to average 11 instances per file in text feedback and 19 in video, which, given the increase in ENGAGEMENT, suggests a lower density of attitudinal resources in the video.

ENGAGEMENT

The use of ENGAGEMENT resources showed a clear distinction between modes. Contracting resources on average made up 55% of the ENGAGEMENT resources in the text feedback but only 25% of the video. The expanding resources generally made up 26% of the text and 63% of the video ENGAGEMENT resources for a near reversal between modes. The video had a clear prevalence of expanding resources. This was true both overall and for each instructor individually, with each instructor devoting more than half of all ENGAGEMENT resources to expansion in the video and less than 40% to expansion in the text as seen in Figure 4.2.

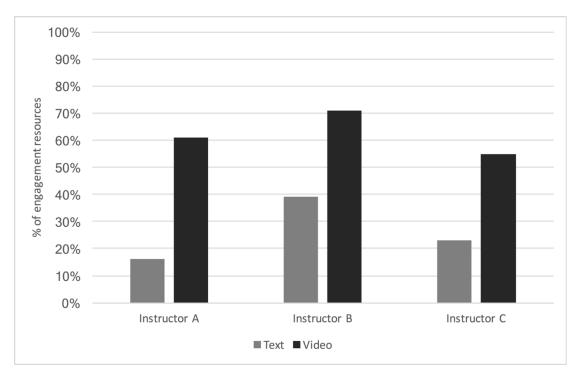


Figure 4.2. Expanding ENGAGEMENT resources by instructor normed to 100 instances of ENGAGEMENT

A three-block binary logistic regression was run with expanding resources as the outcome. Each block of the logistic regression was found to be significant as seen in Table 4.6, suggesting that subsequent blocks added value to the model. The resulting model, given its reliance on solely categorical variables, maintained a questionable fit (-2

Log Likelihood = 7433.04) and only classified 65.4% of observations correctly, though it was statistically significant (see Table 4.6). The regression (see Table 4.7) showed mode (video or text) to be significant and that with instructor and assignment held constant, a clause from video feedback was 4.715 times more likely to use expanding resources than a statement from text feedback. As to be expected, some instructor and assignment variables were also significant, though less impactful. These were not fully explored in the present study.

Table 4.6. Block significance for binary logistic regression on expansion

Block	Chi-Square	df	Sig.
Block 1 – Instructor	142.766	2	<.001
Block 2- Assignment	14.066	3	.003
Block 3- Mode	625.224	1	<.001
Final Model	782.055	6	<.001

Table 4.7. Variables in logistic regression on expanding resources

							95% CI for EXP(B)	
Variable	В	SE	Wald	df	Sig.	Exp(B)	Lower	Upper
InstructorB	.683	.101	45.510	1	.000	1.980	1.623	2.414
InstructorC	070	.092	.583	1	.445	.932	.779	1.116
Assgn_2	180	.086	4.335	1	.037	.836	.706	.990
Assgn 3	218	.094	5.325	1	.021	.804	.668	.968
Assgn 4	023	.086	.072	1	.789	.977	.825	1.158
Video	1.551	.066	560.163	1	.000	4.715	4.147	5.362
Constant	-1.174	.081	208.353	1	.000	.309		

In the text feedback, ENGAGEMENT was more often contracting with prevalent use of DISCLAIM (18%) and PROCLAIM (48%). These ranged from statements such as "this is an incomplete sentence" to "this entire section is not written clearly enough to be understood" and deletions in the student text. The high use of contracting resources did

not leave much room for students to consider additional perspectives, including their own.

Video, on the other hand, relied more expanding resources, often ENTERTAIN resources (47%) that positioned the instructor as one of many possible opinions. These included statements such as "I think that's a really nice ending for that paragraph" or "I'm not totally sure what you mean" and suggestions using modals such as "you could." Rather than stating as fact the inherent deficiency in the student writing, the instructor at times personalized the issue. By stating that the instructor is not sure what is meant by the text rather than stating that the text simply cannot be understood, the instructor invites the student into a conversation and gives space for other perspectives and ongoing dialogue.

Expanding resources in the video also frequently consisted of attribution (25%), a resource nearly absent in the text feedback (1%), as instructors referenced the student text with phrases such as "here you say." Despite both modes of feedback having a visual component of the student text and employing visual ways of referencing specific section of the text, it was only in video that instructors specifically referenced student writing with attributive resources in the feedback itself. This may be due in part to the temporal nature of the video where the instructor uses such attribution to orient both self and student to the new section and comment. This additionally suggests a degree of increased interpersonal awareness brought on by the medium.

ATTITUDE

Overall ATTITUDE polarity showed a substantial difference between feedback modes. While ATTITUDE was primarily negative in the text feedback (73% negative, 27% positive), ATTITUDE in video feedback showed greater overall balance (47% negative,

53% positive). This was true for each instructor individually as well with the proportion of positive ATTITUDE in video greater than that found in text for each instructor as seen in Figure 4.3.

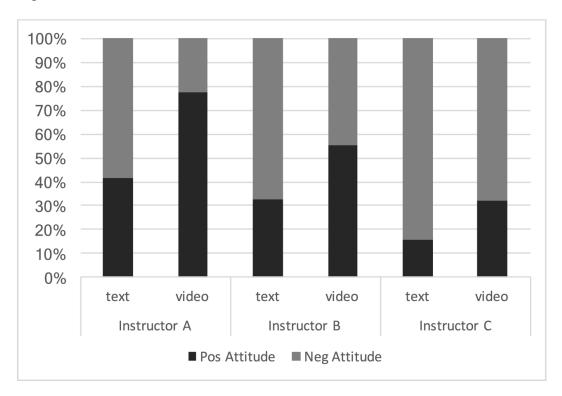


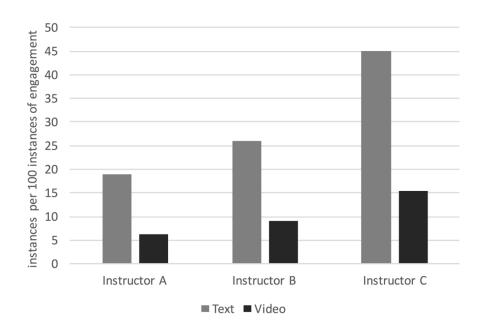
Figure 4.3. Proportions of positive and negative ATTITUDE by instructor

APPRECIATION in text & video feedback

Differences between modes were also present in the most common forms of ATTITUDE: positive APPRECIATION of suggestion and the positive and negative APPRECIATION of student text. Proportionally, the positive APPRECIATION of suggestions was unchanged between modes (15% text, 14% video). However, the proportion of positive APPRECIATION of student text, or praise, was greater in the video (51%) than the text (19%). Similarly, the proportion of negative APPRECIATION of the student text, or criticism, was greater in the text feedback (66%) than the video (35%).

The normed frequencies of APPRECIATION (APPRECIATION instances per 100 instances of ENGAGEMENT) maintained that text and video had similar rates of positive

APPRECIATION of suggestions (text M=2.94, SD=5.97; video M=2.42, SD=3.03). However, while video had a slightly higher rate of positive APPRECIATION of student text (M=9.03, SD=7.99) over text feedback (M=7.24, SD=7.74), the text had a substantially higher rate of negative APPRECIATION of the student text (M=30.62, SD=17.00) than the video (M=10.49, SD=6.47). Thus, the proportional difference in positive and negative APPRECIATION of student text between modes comes not from an overabundance of praise in the video feedback but in a drop in the use of negative APPRECIATION. Despite individual variation in the mean frequency of negative APPRECIATION of student text, ranging from 18.85 to 44.93 on average in text to 6.17 to 15.46 in video, this drop was



found across modes for each instructor as well as overall as seen in Figure 4.4.

Figure 4.4. Normed frequencies of negative APPRECIATION of student text in text and video feedback by instructor

The three-block binary logistic regression allowed for this difference in negative APPRECIATION of student text to be explored further. Each block of the binary logistic regression on negative APPRECIATION of student text was found to be significant as seen in Table 4.8, suggesting that each set of variables added value to the model. The resulting

model, given its reliance on solely categorical variables, maintained a questionable fit (-2 Log Likelihood = 2410.63) and classified 71% of observations correctly, though it was statistically significant (see Table 4.8). As to be expected, some instructor and assignment variables were significant. These were not fully explored in the present study. Of greatest interest was the variable of mode, which was found to be significant and the most impactful. The regression (see Table 4.9) showed that when instructor and assignment were held constant, an instance of ATTITUDE from text feedback was 5.612 times more likely to be negative APPRECIATION of the student text than an instance of ATTITUDE from video feedback. It is possible that rather than employ attitudinal resources in the video to convey criticism, instructors instead employed expanding ENTERTAIN resources to give suggestions.

Table 4.8. Block significance for logistic regression on negative appreciation of student text

Block	Chi-Square	df	Sig.
Block 1- Instructor	50.781	2	<.001
Block 2- Assignment	45.201	3	<.001
Block 3-Mode	276.067	1	<.001
Model	372.049	6	<.001

Table 4.9. Variables in logistic regression on negative APPRECIATION of student text

							95% CI fo	or Exp(B)
Variable	В	SE	Wald	df	Sig.	Exp(B)	Lower	Upper
Instrctor B	.865	.186	21.644	1	.000	2.375	1.650	3.418
Instrctor C	1.087	.164	44.201	1	.000	2.966	2.153	4.087
Assgn_2	.243	.152	2.561	1	.110	1.275	.947	1.716
Assgn_3	634	.145	19.206	1	.000	.530	.399	.704
Assgn 4	.121	.154	.613	1	.434	1.128	.834	1.525
Text	1.641	.104	247.679	1	.000	5.162	4.208	6.333
Constant	-1.333	.130	105.360	1	.000	.264		

Text feedback devoted most of its attitudinal resources to negative evaluations of the student text through the use of negative APPRECIATION resources with error related statements such as "another run-on sentence," "your paper suffers from many fatal word form errors" or quality remarks such as "this is not much of a conclusion." Video, on the other hand, regularly offered a more balanced commentary that included specific praise such as "you have a strong topic sentence," or acknowledged improvement over previous work such as "it looks much better compared to your first draft" while still offering criticism like "I think you still have a lot of repetition."

Resources were somewhat similarly distributed across APPRECIATION subtypes across modes. The proportional distribution of subtypes of positive APPRECIATION of student text was similar across modes, though video showed slightly more balance.

REACTION was the most common type of positive APPRECIATION (55% text, 45% video) followed by COMPOSITION (36% text, 41% video) and VALUATION (5% text, 9% video).

Positive comments were most likely to consider the overall quality (50% text, 37% video) of the student text. These tended to be broad comments focused on the draft as a whole or specific ideas, but could be somewhat vague such as "good job" or simply "good!"

Positive comments concerning complexity, such as "you have a clear topic sentence" or "good use of details and examples," were also a fairly common use of positive APPRECIATION resources (32% text, 25% video). However, the normed frequencies of APPRECIATION revealed that such positive comments were not particularly frequent in either mode.

Proportionally, the types of negative APPRECIATION of student text used were also somewhat similar. Both text and video used negative APPRECIATION primarily for the

evaluation of COMPOSITION (88% text, 83% video), especially complexity (76% text, 67% video). Video had slightly more balance between the types of APPRECIATION resources used with more devoted to REACTION (7% vs. 4%), and VALUATION (10% vs. 8%). However, just as the normed frequencies showed for overall negative APPRECIATION of the student text, text feedback had higher rates of all subtypes of negative APPRECIATION than the video.

Further, when negative APPRECIATION of student text was used, it was more likely to be of lower GRADUATION in the video feedback as seen in Figure 4.5. Nearly 20% of negative APPRECIATION of the student text in video was mitigated through lowered GRADUATION for instructors B and C and more than 60% was mitigated in instructor A's video feedback. With the mitigation of negative feedback a critical interpersonal issue, it seems the lower GRADUATION and the overall lower rate of negative APPRECIATION of the student text in the video shows greater attention to this interpersonal dimension of feedback.

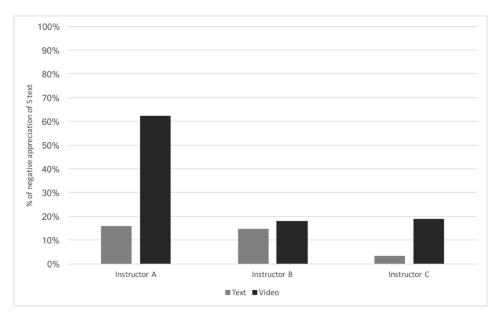


Figure 4.5. Proportion of negative APPRECIATION of student text with lowered GRADUATION in text and video feedback by instructor

Individual variation in attitudinal resource use

Beyond these general trends of proportionally more positive ATTITUDE and a lower rate of negative APPRECIATION of student text in the video, each instructor had additional attitudinal differences across modes as seen in Figure 4.6. For instructor A, this came in the form of an increase in positive AFFECT of both suggestions and the student text. While AFFECT was not present in the text feedback, in video it commonly conveyed inclination such as "I want," "we want" or "you want" in reference to a suggestion or happiness such as "I like this explanation." For instructor B, video introduced a negligible amount of AFFECT and slightly more positive appreciate of student text, but less ATTITUDE overall. Instead of using attitudinal resources to give traditional praise and criticism, instructor B tended to use suggestions in video feedback.

For instructor C, video feedback drew on all three areas of ATTITUDE, showing more variety in the types of attitudinal resources employed (see Figure 4.6). This included small amounts of both positive and negative AFFECT as well as positive and negative JUDGMENT. The use of negative JUDGMENT was tied almost exclusively to papers that the instructor deemed to be plagiarized which led to comments such as "you copied" and "you didn't really paraphrase in accurate English sentences." The higher rate of negative JUDGMENT in the video can be primarily attributed to more plagiarized papers receiving video feedback. It also seemed that these instances evoked multiple spontaneous phrases on the same concern in the video which also served to increase the frequency rate of negative JUDGMENT in the video. These papers were also the source of the very few uses of negative AFFECT such as "I am sad to see this is the work you have done for me." Instances of perceived plagiarism seem to be reflected in an instructor's

use of attitudinal resources. Despite these differences, instructor C still exhibited less negative ATTITUDE in the video feedback. These findings may also demonstrate the clarity of emotion and instructor attitude suggested by studies of video feedback (e.g., Anson, forthcoming; Ryan et al., 2016). Such findings also demonstrate how video may showcase some instructor attitudes, including frustration and sarcasm as pointed out by Anson (forthcoming), perhaps in a more honest light. This could be problematic for instructors with more negative attitudes towards students and their work. However, this also highlights potential benefits of the APPRAISAL framework as a reflective tool in teacher training and development.

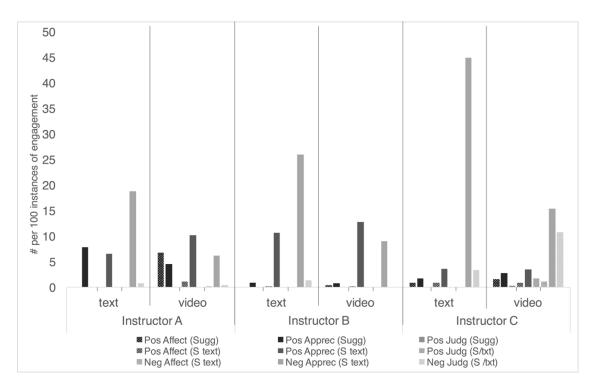


Figure 4.6. Types & objects of ATTITUDE by instructor & mode

Conclusion

This APPRAISAL analysis has shown a clear difference between modes in the use of ATTITUDE and ENGAGEMENT resources. Text feedback was shown to employ more contracting resources and negative APPRECIATION of student text. In doing so, it positions the instructor as an authority, with feedback is used to point out deficiencies, often by criticizing the student text. Video, on the other hand, employed primarily expanding ENGAGEMENT resources and offered a more balanced evaluation of the student text through the use of both positive and negative attitudinal resources. In this way, the instructor is positioned as one of many possible opinions. Feedback in video is more likely to offer suggestions and advice, often casting future changes as opportunities for improvement. By doing so, video feedback encourages student agency and choice and subtly suggests a model of writing and language where multiple avenues may be equally valid for addressing concerns. Offering a balance of praise and criticism, mitigating negative feedback and using an abundance of expanding resource, video feedback showed concern for the interpersonal aspects of the communication with the student and offered feedback that seemed likely to ameliorate many of the discouraging aspects of feedback.

These findings are in line with screencast video feedback studies that highlight perceptions of increased praise (Ali, 2016; Edwards et al., 2012; Elola & Oskoz, 2016), personal nature (Ali, 2016; Anson, forthcoming; Anson et al., 2016; Edwards et al., 2012; Harper et al., 2015; J. Sommers, 2013; Warnock, 2008), conversational tone (Anson et al., 2016; Warnock, 2008) and affective and interpersonal considerations (Anson, forthcoming; Edwards et al., 2012; Grigoryan, 2017; Harper et al., 2015; Ryan et al.,

2016; Thompson & Lee, 2012) of video feedback, thus offering theoretically grounded linguistic evidence in support of common student perceptions.

If considering recommendations from composition studies to turn comments into a conversation, to not take control of a student's text and to make frequent use of praise (Straub, 2000), it seems that using video, a single concrete choice, seems to naturally push instructor feedback closer to these goals. In a time when instructors are balancing multiple duties and acting under increased cognitive load, having to make a single choice of technology to bring feedback more in-line with goals rather than a constant stream of monitoring can be a welcome option.

Future work can build on the contributions of the present study through research that expands or focuses the scope of investigation. Studies might take the methods demonstrated here and apply them in a number of ways. Future research could investigate a range of technological modes of feedback in different contexts under the same principles applied here to see how different modes compare. These might include studies with audio feedback or one-on-one conferences or investigations of feedback in other types of courses. In the present study, significant differences between individual instructors and over assignments throughout the semester were noted, though the effect of mode remained. However, instructor and assignment effects could not be fully explored in the present study. Future studies could investigate linguistic features of feedback across different populations of instructors based on experience, education, cultural or linguistic backgrounds, or technological confidence. Further, longitudinal studies could trace instructor feedback over time to see how timing, technological exposure or other factors might change the interpersonal considerations in feedback. Finally, given that

attitudinal differences were seen in feedback when plagiarism was suspected, future work could investigate this phenomenon further through a focused study on feedback in these situations.

A potential extension of this work could consider instructor training and evaluation. Since APPRAISAL analysis involves an attitudinal component, analysis of instructor feedback and potentially instructor talk could reveal elements of instructor attitude towards language, learning and learners as well. Although hints of this were revealed in the present study, future work would be needed to explore this phenomenon fully. Studies might consider how such analysis could be used in instructor training, reflection and intervention. How might a confrontation with one's own positioning and attitude as revealed through feedback change the way an instructor approached teaching and feedback?

The expansion of APPRAISAL analysis at the intersection of technology and education research has only just begun. As the present study has demonstrated, APPRAISAL is a versatile framework that can offer insights not only into instructor feedback, but instructor positioning as well. Future work has many opportunities to expand on the present study in diversifying the use of APPRAISAL in educational technology research and in deepening our understanding of technology-mediated feedback.

Appendix

ATTITUDE Subtype coding for Affect and JUDGMENT

AFFECT:

SubType	Positive explanation	Negative Explanation	Feedback Examples
Unhappy/happy	Cheer/affection, Happy, like, love, affection, cheer	Misery/antipathy, Sad, dislike, antipathy, misery, unhappy, low, despondent	I like/love, I'm sad that, I don't like
Dis/satisfaction	Interest/pleasure, involved, satisfied, pleased, thrilled	Bored/displeasure, unsatisfied	
In/security	Quiet/trust, Peace, confident, assure, trusting, comfortable	Disquiet/distrust, anxiety, lack of comfort, uncomfortable, lack of community, lack of trust, lack of confidence, lack of peace, not assured	I'm concerned
Dis/inclination	Assessment of desirability, keen, long for, wish for, want	Negative assessment of desirability, wary, unwanted, don't want, disinclined, wary	I want, you want to, I'd like, I would like, I hope, You don't want, I don't want,

JUDGMENT:

SubType	Positive Explanation	Negative Explanation	Feedback Examples
Social esteem- admire/criticism	Common in gossip, shared values for a social group,	Identifies breaking of social group values,	Need to put in more effort, didn't
	Normality: normal, stable, familiar, correct,	Normality: how unusual? Erratic, unpredictable, weird, odd, dated, obscure, strange	work hard enough, students can't do something,
	Capacity: how capable is the person? Smart, clever, together, educated, learned, successful, competent, balanced, together,	Capacity: how capable? Assesses competence and ability, weak, unsound, stupid, incapable, unproductive, unsuccessful, ignorant, clumsy, foolish, slow	didn't proofread, didn't follow directions, etc.
	renacity: how dependable, patient, careful, wary, thorough, hardworking, reliable, constant, dependable, patient, flexible, adaptable, accommodating	Tenacity: how dependable? Impatient, reckless, distracted, unreliable, undependable, reckless, not hardworking, rash, hasty, some comments dealing with plagiarism	

JUDGMENT (continued)

SubType	Positive Explanation	Negative Explanation	Feedback Examples		
praise/condemn rules, edicts,	Deals with laws, rules, ethics and edicts, common in law and punishment	Breaking civic duty, religious observation, going against laws, penalty and punishment	Lying, cheating, stealing, copied. Broke the		
	Veracity: how truthful/honest- honest, credible, discrete, direct, tactful, credible, sincere Propriety: how far beyond reproach,	Veracity: how dishonest, lack of truthfulness or honesty dependent on contextual social values, deceitful, liar, manipulative, devious, dishonest, deceitful, lying, deceptive, manipulative, deviant,	rules, crossed the line		
	how ethical, good, moral, ethical, law abiding, just, kind, caring, modest, generous, respectful	insensitive, mean, corrupt, unfair, unjust, vain, snobby, rude, arrogant, discourteous, irrelevant, selfish,			
		assessments of ethical and moral standing, some comments dealing with plagiarism			

CHAPTER 5. GENERAL CONCLUSION

This dissertation has demonstrated differences in instructor feedback and its use and perceptions by mode. In Paper 1, screencast video feedback was shown to lead to similar rates of revision as text feedback but was greatly preferred by students for its clarity, efficiency, ease of use and increased understanding. Student assertions were supported by observational data that showed they needed to ask clarification questions in order to use text feedback but such questions were not needed with video feedback. Students also expressed negative feelings and confusion towards MS Word's comment bubbles despite knowing how to use the feature. Despite such divergent perceptions of the feedback, students were able to revise with similar rates of success across modes. The linguistic analysis of this feedback in Paper 2 suggested that while the text positioned feedback as correction and the reviewer as a source of authority, the video positioned feedback as a continuum of choices and suggestion and the reviewer as one of many possible opinions, potentially leaving autonomy in the hands of the student. While the proportion of positive APPRECIATION of suggestions was held constant across modes, the text feedback was primarily negative about the student text while the video offered a more balanced perspective. These findings held true for the feedback of the three instructors in Paper 3 as well. Paper 3, through its more nuanced application of the APPRAISAL framework for feedback also found that instructors employed a greater variety of attitudinal resources in video than in text feedback with far less negative APPRECIATION found in the video feedback. Taken together, these final two papers suggest potential linguistic evidence for some student preferences for video feedback and negative reactions to text often documented in studies of screencast and text feedback.

This dissertation demonstrates that changing the mode changes the feedback and the way that feedback is received.

Significance and implications

These results carry implications for practitioners, administrators and researchers. At the instructor level, the understanding of the implications of mode choice in feedback can help instructors choose a mode that suits their feedback philosophy. For instance, instructors ascribing to composition's feedback tenets—to turn comments into a conversation, not take control of a student's text and make frequent use of praise (Straub, 2000)—may find screencasting naturally pushes their feedback towards these ideals. An understanding of the implications of mode can also help program and university administrators make decisions about the types of technological support and tools they should offer their instructors and students.

If video feedback as described here better fits institutional values, then it is logical that institutions support its use. This support could offer technological solutions including the provision of screencasting software and video hosting and sharing capabilities that are streamlined for integration with the university's course management system. Institutions could also develop and support further research and training on screencast feedback specifically and offer ongoing support for its use and the technology and pedagogical systems that support it. Programs espousing screencast feedback might consider how they could best train their instructors and their learners to work with this type of feedback. Instructors and programs that typically use Microsoft Word comments as the primary source of feedback might reconsider how these comments come across to students in light of the findings here. Are there better ways to offer text-based feedback, and is text-

based feedback doing what instructors are hoping? Future research might consider such questions as well.

Practical considerations

The findings of this dissertation can inform future use of technology-mediated text and screencast feedback in practice and research. For instance, in giving comments, a linear progression through the paper allows the video and revision process to flow naturally for students as was observed in Paper 1. Another extension of the findings of Paper 1 is the understanding that instructors need to pause briefly after comments to allow students time to revise or pause the video before moving on to the next comment. Note that these practical considerations assume students have unimpaired hearing and sight and that further considerations, including potentially subtitling, increased referencing language or the use of other modes of feedback, would be required for students with other degrees of hearing and vision. However, the issue of making such screencasts accessible for all students while maintaining their benefit has yet to be fully explored.

There are practical considerations for text feedback as well. When employing MS Word comments, instructors should remember that even when trained to use them, students may still find the ever-changing comment interface to be frustrating and confusing to use. Instructors and researchers might delve into this further and see what improvements could be made to improve the user experience and make digital text feedback more appealing. Given the variability of the software interface for viewing comments across versions and platforms, it is important to consider the versions being used by students when offering training or conducting research. It is not yet known which

versions of Word present comments to students in a way that is easiest for them to use and understand or how this may vary student to student.

Significance

Additionally, this dissertation helps to fill a noticeable gap in past research on technology-mediated, or CMC, feedback, especially screencast video feedback, in SLW research. Where the focus of video feedback research has often been on populations receiving feedback in their L1, this dissertation investigated ESL students receiving feedback in the target L2, expanding our context of understanding. Further, where prior research in this area has used video feedback that incorporates text, writing, or codes alongside audio commentary, this dissertation focused on video feedback showing the student text free from written comments alongside audio. Despite the potential influence of skill-based proficiency when feedback is given in this way in the L2, the study's results still showed similar rates of revision between screencast and text feedback as well as more positive student responses—perceptions of deeper understanding and greater clarity—to the video than text. Such findings are in line with previous screencast feedback research (e.g., Ali, 2016; Ducate & Arnold, 2012; Elola & Oskoz, 2016). Previous research has tended to overemphasize student perceptions with a lesser emphasis on instructor perceptions rather than directing attention towards what students do with the feedback. In an effort to improve our understanding in this area, the dissertation triangulated student perceptions with observations of the way students work with the feedback. Finally, where previous research in this area has failed to fully investigate the impact of mode on the language of feedback, this study employed a new framework for feedback research, that of APPRAISAL (the language of evaluation), to

explore the linguistic change and interpersonal implication in feedback across modes. Taken together, the three papers in this dissertation expand our understanding of what happens when we change the mode of feedback in ESL writing, but the findings, especially the shifts in the interpersonal resources employed across modes, can extend our understanding of technology-mediated feedback well beyond the context of the ESL writing classroom.

Directions for future research: Expanding our understanding of the impact of mode

Future studies could look more deeply at the impact points of mode. While this dissertation investigated aspects of the impact of mode at both the creation and application points, it did not cover every aspect of these areas and some remain underdeveloped in the research literature at large. Paper 1 offered insights into student use of screencast feedback, but future work might build on our understanding of student use of screencast feedback in a number of ways. Given Paper 1's focus on a small sample of students, it was unable to capture a great variety of strategies employed by students in the use of feedback. A study of a wider population of students might help to identify strategies employed by more and less successful students during revision. This could in turn lead to the development of learner training for working with screencast or text feedback. If future studies are conducted using other types of tracking technology such as eye-tracking or automated collection of data, perhaps interaction patterns of highly successful and less successful learners will become more apparent. Then the patterns of highly successful students could be demonstrated as part of learner training.

Future studies might also consider how different video hosting platforms affect student use of screencast feedback. Some platforms such as Vimeo offer bare-bones

players that lack even speed controls (unless used with html5 plugins) while others such as Panopto offer viewers multiple ways to create and share time-synced notes. An exploration of student use of screencast feedback when taught about and given access to such notation features might lead to different uses and perceptions of video feedback. This might even lead to new in-class assignments such as annotating feedback and lead to easier referencing for grading and review later on.

It is also increasingly worth considering how the technological situation of students and different platforms might impact their use of feedback more broadly. With an increasing number of people using smartphones for internet access (Anderson, 2017), how might these different modes, and new modes, of technology-mediated feedback be effective across platforms and interfaces? As devices and platforms and technological experiences continue to diversify and the potential for digital divide persists, this question becomes all the more important to consider.

In this dissertation, the bridge between the creation and application of feedback points was explored by looking at the resultant feedback. This showed the interpersonal differences evident in the language resources employed in the feedback. However, while perceptions of students were also investigated, the linear development of the dissertation did not allow for full connections to be made between the language of the feedback and student perceptions. While the linguistic analysis offered here presents possibility for insights into and potentially explanation for student perceptions, there remains the need to explore this relationship empirically. Future work might thus consider a more careful connection between the language of the feedback and student perceptions.

One area still in need of further exploration is the instructor perspective and the impact of mode at the creation point. In the creation of feedback, studies could consider not only the analysis of the resultant feedback but also the instructor experience of making feedback. How does the mode impact how instructors think about and perceive the feedback creation process? What are instructor perceptions of different modes of feedback? Future studies could augment our understanding of perceptions and points of influence by comparing the instructor perceptions of different modes of feedback alongside those of their students. Since instructor attitudes towards technology have been seen to influence their use of technology and the perceptions of their students (Chen & Cheng, 2008), how might this look in the case of SLW feedback where instructor attitudes towards technology, feedback, language and their students are all at play? On a more practical level, how does the shift from text to screencast feedback affect instructor time and energy? What practical considerations might need to be taken into account? How does using a particular mode for feedback impact instructor feedback over time? How do instructors actually go about creating feedback in different modes? A deeper understanding of these areas, perhaps with a user experience perspective, might be able to reveal design considerations for the development of feedback systems and video-hosting integration options aimed at education. Through combinations of self-reports in the form of diary studies, interviews, focus groups and observations, studies might enhance the understanding needed to build better feedback that has a positive impact on instructor workload and flow.

Participants and context in future research

Further, studies might consider a wider range of instructors and institutional factors. With many instructors teaching in languages other than their first language, how does this affect their use and perceptions of tools for creating feedback? How do instructors with different experiences creating feedback perceive screencast feedback? How do instructors with different familiarity and comfort levels with various types of technology perceive text and screencast feedback creation processes? How confident are instructors making feedback using different technological modes and what types of training might benefit them? In Paper 3 we saw that there may be differences in instructor feedback by years of instructor experience. A larger sample of instructors or feedback over time might be able to reveal larger patterns in instructor feedback in various modes.

In addition to instructors, future studies could look at different populations of students. As text and screencast feedback ask students to draw on different language skills, how does proficiency level factor in to students' perceptions, use and understanding of different modes of feedback? Is there a cut off proficiency where students are able to benefit from a certain mode of feedback given in the target L2? A number of learner variables such as previous experience with feedback, proficiency in writing and other skills, attitude towards technology and technological access may all moderate a learner's use and perceptions of technology-mediated feedback. How can future studies best capture these interactions as well as the context in ecologically valid studies of SLW feedback?

Work on technology-mediated feedback could be expanded through context. At the simplest level, opportunities for technology-mediated feedback and the contextual factors influencing their effective use could be explored at different types of institutions (public or private universities, high schools, community colleges), programs (intensive English, foreign language, academic ESL, ESP, LSP, adult ESL), and levels (intermediate, advanced, content based). The assignments feedback is given on provide another context for potential variation. Are the benefits of different modes, such as screencast and text feedback, affected by assignment type or length? The specific situation of revision could also be investigated further to see how screencast or text feedback might be used differently when revision takes place in a lab vs outside of class. Studies could have students employ self-screencasting techniques where they record and submit their own accounts of their revision with feedback on their own time, similar to studies of composing processes (e.g. Hamel & Séror, 2016; Hamel et al., 2015; Phinney & Khouri, 1993; Séror, 2013). These screencasts could be augmented by diary studies to get a more authentic account of revision. Studies might also consider how face-to-face time affects use and perceptions as well as creation of screencast and text feedback. Do these elements vary with classes that meet more frequently or for longer durations or between face-to-face and online classes? Do we see students reacting differently to feedback? Are instructors doing something different with their feedback?

Methodological contributions & opportunities

In addition to the findings informing practice and suggesting directions for future research, this dissertation offers methodological contributions that highlight opportunities for future work. It has shown the potential of ambient audio-recording in a multicomputer screencast observation setup, especially in the context of classroom based research. In Paper 1, the recording of ambient audio on all computers allowed for student-instructor

and student-student interactions to be captured alongside screen activity, leading to an understanding of when and how students asked questions about their feedback. This showed differences across modes of feedback but might have been missed if this type of recording had not been employed. Future classroom-based research and future feedback studies might employ this technology for similar purposes and to augment understanding of the research phenomenon.

A major contribution of the present study is the adaptation of the APPRAISAL framework for technology-mediated feedback in SLW. This adaptation allows for the APPRAISAL framework to be applied in a number of circumstances. Here it was shown to allow for comparisons across text and screencast instructor feedback in ESL writing. However, its use could easily be extended to other forms of technology-mediated, such as audio, or even paper-based feedback. In regards to instructor technology-mediated feedback, the findings in Paper 3 seem to suggest that instructor feedback on plagiarized papers might employ different APPRAISAL resources than feedback on original work. Future studies might explore this further. The development of a large corpus of feedback tagged for APPRAISAL features, paper attributes and instructor characteristics could allow for larger patterns in feedback, such as differences in ATTITUDE on plagiarized work or differences across multiple modes, to become salient.

With an increase in the use of technology and growth in the number of ways instructors can give feedback, this theoretically grounded application of the APPRAISAL framework offers feedback researchers a framework flexible enough to work effectively across modes, situations and contexts. In expanding to other use cases, the adapted framework could be applied to analyses of instructor-student conferences where writing

is discussed. These results could then be compared to other types of feedback. The feedback-adapted APPRAISAL framework might also be of use in analyzing both peer and writing center tutor feedback. The utility of the framework and the norming procedures provided in Paper 3 can allow for comparisons across not only modes of feedback but across studies, offering a way to connect many small scale contextualized studies.

Finally, this adaptation of the APPRAISAL framework seems to have potential for other uses as well. Studies might consider how APPRAISAL analysis of feedback might augment studies of student perceptions. Similar to Treglia's (2008) work, studies could undertake careful feedback-focused interviews with students to understand how the use of different APPRAISAL resources affects students across modes of feedback. Since APPRAISAL analysis reveals attitude, positioning and purpose in feedback, it might have use as a reflective tool in teacher training and professional development. Instructor attitudes towards language, teaching and students seem to come out in feedback. An analysis of this feedback and a reflection on this analysis and their feedback may help instructors better understand their implicit attitudes and potentially through this awareness work towards change in problematic areas. Future uses of this adaptation and further adaptations of the APPRAISAL framework for this context will no doubt lead to a number of insightful research trajectories.

This dissertation offers methodological, contextual and findings-based contributions. It has demonstrated the utility of APPRAISAL in feedback research and has offered how this framework might extend research in the future. In terms of context it has expanded technology-mediated screencast and text feedback research to include ESL writing and standalone L2 screencast feedback not accompanied by text commentary.

The findings of the studies in this dissertation come together to show that technology may play a role in shaping our experiences of feedback and the feedback itself, suggesting that mode plays a key role. In a broader sense, the findings and this dissertation as a whole have leant insight into how the interaction of humans, specifically students and instructors, with different computer-based communication systems, such as screencast and text, changes the way they consider the human or interpersonal elements of their interaction and how they understand and react to such communication (feedback).

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APPENDIX – IRB APPROVAL

IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY

Institutional Review Board Office for Responsible Research Vice President for Research 1138 Pearson Hall Ames, Iowa 50011-2207 515 294-4566 FAX 515 294-4267

Date: 11/10/2015

Kelly J Cunningham To:

CC: Dr. Tammy Slater 305 Ross Hall 335 Ross Hall

From: Office for Responsible Research

Title: Instructor training and Modes of Feedback in Second and First Language Writing

IRB ID: 14-104

11/8/2017 **Date for Continuing Review: Approval Date:** 11/9/2015 Expedited **Review Type: Submission Type:** Modification

The project referenced above has received approval from the Institutional Review Board (IRB) at Iowa State University according to the dates shown above. Please refer to the IRB ID number shown above in all correspondence regarding this study.

To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

- Use only the approved study materials in your research, including the recruitment materials and informed consent documents that have the IRB approval stamp.
- Retain signed informed consent documents for 3 years after the close of the study, when documented consent is required.
- Obtain IRB approval prior to implementing any changes to the study by submitting a Modification Form for Non-Exempt Research or Amendment for Personnel Changes form, as necessary.
- Immediately inform the IRB of (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.
- Stop all research activity if IRB approval lapses, unless continuation is necessary to prevent harm to research participants. Research activity can resume once IRB approval is reestablished.
- Complete a new continuing review form at least three to four weeks prior to the date for continuing review as noted above to provide sufficient time for the IRB to review and approve continuation of the study. We will send a courtesy reminder as this date approaches.

Please be aware that IRB approval means that you have met the requirements of federal regulations and ISU policies governing human subjects research. Approval from other entities may also be needed. For example, access to data from private records (e.g. student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. IRB approval in no way implies or guarantees that permission from these other entities will be granted.

Upon completion of the project, please submit a Project Closure Form to the Office for Responsible Research, 1138 Pearson Hall, to officially close the project.

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.

IOWA STATE UNIVERSITY

OF SCIENCE AND TECHNOLOGY

Institutional Review Board Office for Responsible Research Vice President for Research 1138 Pearson Hall Ames, Iowa 50011-2207 515 294-4566 FAX 515 294-4267

Date: 3/6/2014

To: Kelly J Cunningham CC: Dr. Lily Compton
305 Ross Hall 203 Ross Hall

From: Office for Responsible Research

Title: Modes of Feedback in Second and First Language Writing

IRB ID: 14-105

Approval Date: 3/5/2014 Date for Continuing Review: 3/4/2016

Submission Type: New Review Type: Expedited

The project referenced above has received approval from the Institutional Review Board (IRB) at lowa State University according to the dates shown above. Please refer to the IRB ID number shown above in all correspondence regarding this study.

To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 56), please be sure to:

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 consent documents that have the IRB approval stamp.
- Retain signed informed consent documents for 3 years after the close of the study, when documented consent is required.
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