VIDEO FEEDBACK EFFICACY AT ROMIG MIDDLE SCHOOL

By

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A Project Submitted in Partial Fulfillment of the Requirements

for the Degree of

Master of Education

University of Alaska Fairbanks

December 2019

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Abstract

Romig Middle School in Anchorage, Alaska, is consistently ranked within the top ten most diverse middle schools in the nation. The main objective of this research will be to determine if video production students meet learning objectives better or worse with video feedback given. The secondary goal is to measure the efficacy of using video feedback as a delivery source of evaluation to students at the eighth-grade level. The methods involve pre-and-post class surveys on the feedback methods and quantitative data gathered on improved technique. The results of this research will guide the use of video feedback in video production classes and serve as a platform to expand video feedback delivery into technology classes.

Keywords: video feedback, efficacy, video production

Introduction

Inspiration for this came from multiple sources. At first, when I was brainstorming a topic, I thought of what would be of interest to me. I later decided I would try and find something that would involve my video production class. I then recalled a time when I was helping out as a basketball manager. The coach would occasionally notice a particular behavior and ask me to videotape the next game. We would then use the tape to help the coach provide video feedback to the team and/or individual players. This memory prompted a question: Is video feedback becoming more integrated into education in other subjects and ways?

In the paper, "Classroom observations and reflections," the use of streaming video as a tool in the classroom environment was analyzed. The authors suggested that using video for analytical purposes can overcome obstacles, such as time to examine peer's practice (Barlow, McCrory, & Blessing, 2013). This article is referenced because of the transferability to students, using videos as a form of reflection and feedback. In ever-increasing classroom capacities, finding ways to help students access content feedback is essential.

Background for the Video Feedback Model

Through my research, I found a study that influenced me to give video feedback to my students, specifically with ScreenFlow. ScreenFlow allows them to see the part of the video I am commenting on while seeing my face and hearing my voice in a picture-in-picture format. According to Kock, sounds followed by visual stimuli have been the primary mode of communication throughout humanity (2001). Ned Kock proposed that the more synthesized or unnatural communication is, the greater the need for more intellectual computation. In other words, the closer the interaction is to the natural mode of communication, the less we have to think; thus, the more intellectual capacity we have to work out other aspects of the information

we are trying to assimilate. Therefore, the use of video for feedback can produce outcomes more efficiently than other mediums. In Jason's research, Wearable writing, he studied video feedback and its efficacy with English students (2016). To increase learning outcomes, he even went so far as to teach them how to use Google Glass to record feedback for each other. Considering Jason's analysis of the full visual and audio experience Google Glass affords in light of Kock's theory, being able to capture the reviewer's body language is meaningful, in addition to the feedback itself to student outcomes. This study influenced my idea for an action research project since it is so similar to my research question. A few differences, in particular, make the study worth conducting. For example, the differences in age pose the question of whether is it beneficial to use video feedback with middle school students. Additionally, my students are already working with video and learning how to tell a digital story.

Education is adopting technology at a high rate, and thus some studies have looked at the efficacy of using technology in the classroom. Using technology for the sake of using technology can be a pitfall, combined with the fact that simply because a student uses a camera phone for social media, he or she may not know how to successfully navigate its use in the classroom to tell a digital story. According to Wang, Hsu, Campbell, Cost, & Longhurst, one must be very careful in assuming a "digital natives" knowledge base (2014). Technology needs to be taught explicitly to support creativity for it has now been proven, that it is not automatically picked up as has previously been assumed. I bring this study up because it reminds us as educators it is very appropriate to explicitly teach our students how to use technology in a classroom setting, which is also generalizable to the feedback we are given. I will need to show students how to access and apply my video feedback to increase its chances of success.

One of the challenges of incorporating technology into the classroom is the prevalent influence of the concept of "print literacy." There is a gap between new multimodal literacy practices and print-based schooling; it has been dubbed the "digital divide and disconnect" (Miller, 2007). Based on the research in this article, we can reach students more by providing examples through video feedback, more so than any other type of literacy. Video feedback also affords opportunities for our students to create content, and give video feedback, therefore gaining valuable evaluative experience. We must keep up with societal literacies, so we can provide relevant education. If we stay with print-based literacies, how well are we preparing our students for future jobs?

Literature Review

Educational Delivery

The typical face to face model for feedback is the original model adopted in education. A professor or teacher lectures on topics and then students take notes. The students are then tested through various means such as projects, quizzes, and tests. All across the nation, but specifically in Alaska this model has reduced access to education and educational feedback. As a result, new technologies have been developed to enhance communication. These technologies have been applied to the classroom and are now recognized as distance education. For research purposes, distance learning is defined as, “the quasi permanent separation of the teacher and learner throughout the length of the learning process” (Hodgson, 1993, p. 12). Part of this study looks at turning the feedback model used in the eighth-grade grade classroom into an asynchronous delivery method for feedback and thus is relevant to discussion of the progression of feedback models in distance education.

One of the first attempts at distance education in Alaska that expanded the educational model was the inclusion of an Independent Learning program in the 1950's at the University of Alaska Fairbanks. It was in the form of a correspondence class, where students were mostly on their own. This meant their class work and all forms of feedback had to be delivered via mail. The mail was handled through the Center for Distance Education & Independent Learning (CDE). Even though this style originated over 69 years ago, it still remains popular due to the lack of internet and other connectivity in some of the most remote places in Alaska. About 50% of classes offered through CDE are still paper based correspondence classes. (Hahn, Lehman, & Dupras, 2006).

Audio conferencing was the first major leap in technology that enhanced the distance learning model. This allowed students access to course materials faster through teleconferencing numbers and later through voice over internet protocol (VoIP) solutions. After infrastructure investment, the above models are generally cheaper for the university and students. The universities choice in medium and personnel cause the variation (Henry, 1994, p. 12). One of the major considerations when using audio conferencing or VoIP solutions, is the preciseness of language. This can be demanding on instructors because the conferencing does not allow for visual ques like those found in the standard educational model (Newlands & McLean, 1996).

Video conferencing is another distance education model that is being used today. The model has many similarities to audio conferencing. For example, it is still synchronous, so there are scheduling considerations. The equipment cost is higher in comparison to audioconferencing because items such as webcams are necessary and higher internet bandwidth to support multiple video streams is required. One of the major advantages of video conferencing is the addition of visual ques. This addition is often valued by students. In one study comparing feedback models,

students reported that video conferencing would likely be more valued over audio conferencing: "13% of respondents thought that video conferencing would be 'a great deal better' than audio conferencing; 24% thought it would be 'better', 47% 'a bit better' and 16% 'not at all better" (Newlands & McLean, 1996, p. 290).

The above student survey was taken from a cohort of 41 university students. This is just one factor that is considered when designing educational experiences. As suggested by Bates (1982), there are a number of factors an institution considers when choosing a model for feedback and classroom delivery.

1. The accessibility of the medium, whether it is widely available or can at least be provided cheaply.
2. Convenience and ease of use by students, without undue additional training.
3. Academic control over the design and preparation of materials, again without undue additional training.
4. The 'human' touch, making possible relatively natural communication between learners and teachers; and
5. What is available.

One the most recently applied methods has a blended approach. It includes use of a Learn Management System (LMS), such as BlackBoard, Canvas, or Google Classroom. This blended approach has been developing over the past twenty-five years at the University of Alaska Fairbanks (UAF) (Hahn, Lehman, & Dupras, 2006). Typically, Black Board has been utilized at UAF; however, during my course work it was heavily supplemented with programs and services

to allow for synchronous communication, such as Zoom, Slack, and Google Hangout. Additionally, we communicated with several asynchronous methods such as Twitter, personal/class websites, and blog posts.

This fairly swift adaptation between analog to digital formats has had a large impact on the way people are interacting with each other in society. Since there are new programs and technology-based vehicles to communicate, it has caused an urgent surge to develop agreed upon new media literacies. Students need to be able to critically evaluate information that is presented, shared, and advertised (Ho & Anderson, 2012).

The role of Video Feedback as a model

The role of video in feedback, can cause a loop; since the feedback is recorded, one starts to notice things that need attention after multiple views. It helps to avert the natural tendency to avoid the uncomfortable, and therefore can sometimes be feared due to the inevitable change to which it will lead (Brookfield, 29).

In a study conducted by Lindsay, they suggested that video conferencing offers an opportunity to view and review our actions and/or words from an outside perspective. This leads us to a place where we can review a video for ourselves and reflect on an experience or problem we observe. Their study looked at peer video feedback. To quote a participant in their study:

> ... revisiting recordings is useful as I can continue to analyze what I said in that instance and assess its relevance as time passes and contexts change. (personal communication)

Another quote from the same study is as follows:

> At first, I didn't see the point of having a video recording as opposed to just the audio. But using the video I realized how much easier it was to find the exact place I needed. (personal communication)

This quote is important for two reasons. First, it is a very similar comment echoed by one of the students in my study. This provides additional support to the inclusion of the qualitative comment of the study, further supporting the need to include follow up with participants on how it occurred to them. Secondly, it supports the change in delivery from audio to video delivery for feedback. Seeing one's face and hearing one's voice helps make sense of an occurring conversation, which makes the format more useable than straight audio feedback.

Brookfield explains that video recordings are less prone to error than our own memories, thus events that are recorded are less likely to succumb to our embellishments or diminishments (1995). In regards to application to subsequent projects, using video feedback can therefore guard against "catastrophizing and complacency (Jordan, 5)." Reviewing feedback after the event enables us to more objectively consider what is being said. Amulya, a theorist on reflection and experiential learning, supports this notion of reflection being an important part of the learning process (2004). Another argument for the use of video feedback, is that it has been found it helps socially anxious individuals have a better self-assessment of their performance. Forcing the students to look at their work through the video feedback, will help their ability to self-assess more in line with their peers and me as their teacher (Rapee & Hayman, 1996).

In my study I will be adopting the blended approach, using live feedback and supplementing with two different forms of asynchronous solutions to feedback delivery. Written feedback and live feedback will be compared to live feedback and supplementary video feedback.

Methods

Participants and Context

The participants in the study are all middle school students from Romig Middle School in Anchorage, Alaska. According to a study conducted by Chad R. Farrell, Romig Middle School is consistently within the top ten most diverse middle schools in the nation (2018). At the start of the study, in April during the Spring Semester of 2019, there were seventeen students; however, two dropped before the surveys were administered. Two more students opted out of the post-video feedback survey, preferring to continue work on their projects and forgo spending time on the surveys. Eight of the participants were from the morning video production class, which was solely listed as video production in the course description. Of these eight, five were returning for the advanced program. This is significant because some of these students were content being placed into the class and simply wanted to pass; however, others specifically chose it. This happens because of the different levels of Math and English classes that are available only during certain periods in the day. This is significant because it partially explains the participation in the study. Many students want to learn how to make a better video, and others are simply taking the class because it is the elective that fit into their schedule. Commitment to feedback is correlated with their interest in choosing the class.

In contrast to the morning class, the students in the afternoon class were recruited to do a stacked video production class alongside the regularly scheduled advanced technology students. There were seven that chose to participate. Some of these students were a part of the Highly Gifted Program at Romig. Others were selected for their specific interest in the class, thus intrinsically more interested in receiving feedback to further their educational experience than those whom were simply placed in the class.

Qualitative Precedent

Part of Jason Tham's method included a pre-survey on several fronts; for example, one of the variables looked at their skill and ability in teaching. The following section in the survey asked about how they utilized information in the videos to increase their performance. A precedent has also been set to survey students on how the feedback has affected their learning experience. This paper will be drawing upon the survey conducted by Jason Tham (2016).

In the qualitative section of Tham's paper, the particular excerpt that stood out was that the teacher could repeat the video and analyze multiple aspects of it. After the teachers picked out a section, they could pick up different aspects of each re-view of the video clip (Barlow, McCrory, & Blessing, 2013). This excerpt is a potential piece of evidence that supports using video as a feedback tool. Students, teachers, or administrators can review it on their own time more than once as they see fit, to improve their learning outcome.

Video quality is of the utmost importance when using it as a learning tool and judging its efficacy, according to Beauregard, Rousseau, and Mustafa, (2015). When a video is not edited to a professional level, the anomalies and mistakes in editing can distract enough to mask any valuable learning opportunities afforded by watching the video. The authors also suggested that videos of peer experiences can increase vicarious learning of the topic at hand. Based on this assertion, using video in the classroom with students could encourage a community of learning over an individualistic climate that is often commonplace.

Mixed Methods Precedent

Recognizing that video in some circles is considered a literacy, it is being studied more rigorously. Borup, West, Thomas, and Graham (2014) looked at how using video can affect students in distance learning education utilizing a mixed-method design. Through qualitative

interviews, they compared teachers giving their students written feedback, audio feedback, and video feedback. Their findings agreed with Kock's theory (2014). They also found that the humanizing effects of more natural modes of feedback helped students connect with their professors and teachers on a deeper level. Additionally, they brought up fairly obvious but important consequences of using video feedback. Teachers had to seek out quiet areas to capture good audio thus resulting in a greater time investment. They also had to become accustomed to dealing with small mistakes or redoing videos. While this can be time-intensive, students reported a more personalized learning opportunity when their having their teachers kept the authentic video experience. They found that their emotions were much easier to express and appreciate. Students also found the feedback to be more conversational.

In the quantitative portion of the study, Borup, West, Thomas, and Graham enumerated Likert scale surveys about teacher social presence. They then ran a t-test to ascertain if there was a significant difference between video feedback or text-based feedback models. The t-test helped to compare two means of data to see if the results are statistically different from each other and not due to random chance. They did not find any significant difference. This paper will be adapting the quantitative strategy that Borup et al. (2014) established as precedent. Instead of measuring instructor social presence, perceived ease of feedback adaption in subsequent projects will be analyzed.

The Title Six Community Counselor, Tsi-Yaa Cunny (2019), introduced the assent forms to the video production class students, while I stepped out of the classroom. This was done to mitigate the power relationship between student and teacher-researcher roles. She also explained the informed consent form to be delivered to their guardians. Tsi-Yaa explained the documents thoroughly, and then the students who felt they would participate in the study took the assent and

consent forms. The forms were then collected and securely stored in my home office. The data from the study and the results was only made available to myself and my graduate committee. The student choices on whether to participate or not were kept confidential as well as the forms. There is an example of both of these forms in the appendices A and B.

The participants finished their next project before the pre-surveys were administered to ensure they could look at their written feedback and respond to the survey while it was fresh in their minds. The written feedback was delivered to them via their personal Student Connect accounts, that can be viewed privately by students and parents via computer or mobile device. Student Connect, is a part of Zangle, formerly known as Que, which is the software package that teachers use to communicate with parents about their students' grades and behavioral issues. Student Connect is compliant with the Family Educational Rights and Privacy Act (FERPA) and set up by the Anchorage School District. This is important because the software package has all students' grades, which is critical to keep between the family and teachers.

After the students viewed the written feedback, they navigated to their respective Google Classroom, where only the participants received a link to a Google form containing the pre-survey. Google Classroom is one of the learning management systems (LMS) that is adopted and supported by the Anchorage School District. Canvas is the competing LMS but is used more typically in the high school classrooms.

The pre-survey was delivered to compare video feedback to the text-based feedback model. This survey was adapted from a business survey and first modified for comparing video feedback to text-based feedback by Jered Borup, Richard E West, and Rebecca Thomas (2014). The survey was further modified to fit the reading level of an average eighth-grade video production student.

Once the students' next video assignment was completed, their videos were then previewed and the video feedback was created via the program ScreenFlow. ScreenFlow was used because it enables users to record their voice and likeness simultaneously while recording what is on their screen. ScreenFlow is unique to the Macintosh platform but similar to the PC Lab program Camtasia.

When the students' videos were loaded and watched, the feedback was recorded to note mistakes or areas that needed improvement. ScreenFlow allowed the feedback video to include my face and my voice, which were simultaneously recorded via the internal microphone and iSight camera on a Macbook Pro. After the commentary and feedback were recorded, audio levels were balanced so one could still hear the story they were weaving, but at lower levels, as to not drown out the feedback. When relevant, visual aids were digitally added to supplement the feedback. For example, one group included a scene that needed to be chromakeyed; they panned the camera and missed an object in the background that did not fit into their project. Feedback was given that they either needed to reshoot footage without the object in place or keyframe a mask to remove the object from the scene. To make it easier to see and understand, the irrelevant portions of the screen were greyed out digitally, and a yellow arrow pointed to the out of place object in their scene. The feedback was then compiled via ScreenFlow into an MP4 format using 1080p resolution.

Mp4 is the abbreviation for the file format used for video, known as Moving Picture Expert Group-4. This resolution is recognized as full high definition and is the abbreviation for 1920 x 1080. The "p" represents progressive scan and is the way the lines of resolution are displayed in sequential order from the top of the screen to the bottom of the screen. This is a common video format that uses compression to keep file sizes smaller and more manageable.

Once the file was created, the first iteration of the feedback video process was compressed. This step is important to reduce file sizes and make them more manageable in a pay per data environment. The files were also re-written to stream more efficiently so that an end user, such as the students, experience minimal to no additional buffering. The program HandBrake was used to accomplish all of this. After the file was optimized, it was uploaded to an ASD Google Drive account. The sharing permissions were set so only those with the link could view it. The link was then copied to the clipboard and pasted into the comments section of Zangle for the video assignment. A score out of ten points was entered. This very first iteration took about an hour, for a five-minute video.

Students were instructed to check their Student Connect portals and view their personalized video feedback. Once the feedback was viewed, the student participants took the video feedback survey, which was a modified version of the pre-survey. There were two new questions, designed to allow the students to give their opinion of the feedback model in a more open-ended way and to be very direct if they thought it worked for them. The survey can be found in the appendix.

As more feedback videos were ready to be made, the process was iterated on to increase efficacy. To simulate live feedback, there was no preview step on the second iteration. The video was loaded, and feedback was created on the first viewing. A USB Logitech headset was used to capture audio. Students then viewed their feedback videos and took the video feedback survey.

In subsequent iterations, ScreenFlow became more familiar, and auto-uploads were experimented upon in the Google Drive. It was configured to generate a private link upon completion of the video compressing in a specially created video feedback folder on the Anchorage School District version of Google Drive. Then the link was copied from the Google

Drive and pasted into Zangle. Students then viewed their feedback videos and took the video feedback survey.

Analysis

In the second iterations of the method and beyond, a Logitech USB Headset was used to record audio. This reduced the need to balance audio between the feedback and the original soundtrack which made balancing easier. It also reduced the need to adjust in post-production because the headset that was used did not pick up as much of the original video since it had a directional microphone versus a boom microphone design. Starting the balancing process was more efficient because the original video's audio level was able to be lowered quickly without effecting the spoken audio feedback. The extra setup was well worth it as it saved time in post-production.

In the second iteration, the recording step was altered. After reflecting on the first iteration, it was noticed that the practice of viewing the video first removed initial reactions to the video, which translated into less facial expression. The feedback was given on the first viewing of the turned in product instead of after reviewing the video first, as was done in the first iteration. This step was changed based on the research from Wolsey (2008) where he suggests that facial expressions and body language provide context for verbal interactions (p. 311). In the previous iteration, it was more practiced and thus had cut down on the natural body language and context that was being recorded. This is similar to the issue that happens with audio-based feedback models, as mentioned earlier in the literature review section (Newlands, McLean, 1996). With intention, this drawback can be partially mitigated with unscripted video feedback.

The later videos skipped using HandBrake to make the process more time-efficient at the cost of storage space. The videos that were compressed through HandBrake were then compared

to the videos using exclusively ScreenFlow. There was some variance based on motion and depth; however, the difference in the compression rate was only about 50%. Since the videos ended up only being about 40 MB in size, the time-saving choice was valued as more important in order to make this process sustainable. In addition, since the videos only needed to reside on the server for the semester, long term storage did not have an impact on the choice to skip the use of HandBrake.

The final iterations of the process of making the video feedback made it possible to spend five to ten minutes on each project. The variance is due to the amount of corrective feedback required as well as the overall duration of the turned in film. The shortest assignments are about two minutes and range up to a maximum of five minutes at this level of video production.

Quantitative Survey Analysis

To measure the difference between the feedback models quantitatively, the first question, "My teacher gives me useful feedback about my course assignments," was enumerated for both feedback models and then run through a paired t-test. The strongly agree was assigned a value of one and every response on the continuum one more than the previous response. A paired two-sample t-Test was conducted to determine if video feedback will be more valued based on usefulness as reported by the students. In a small sample ($N = 13$), value of written feedback was valued less than video feedback $M = 1.46$ ($SD = 0.66$) at $M = 1.38$ ($SD = 0.65$). However, this change in value was not significant, $t(12) = 0.36$, $p = 0.36$. The other questions were very similar or asked as a barometer of how they perceived their teacher; thus, t-tests were not listed. See the appendix for visual representations of the qualitative and quantitative data.

Qualitative Survey Analysis

Analyzing the open-ended survey questions suggests why there were no significant difference in the quantitative section. First, only four individuals responded in the open-ended section of the survey. Two responses were specific to their experience but not illustrative in deciding whether video feedback is worth making.

The first comment I would like to mention is that the student found the videos helped him/her quickly understand what I was referring to in the feedback so less time was spent searching on how to apply feedback to their work. This seems to support video feedback as a useful tool if one can build the skill to make feedback on videos efficient.

The other comment I would like to analyze, came from a student that was placed in the class and was easily distracted. The student did the work, but at the minimum levels, "…did not really help better but whatever is easier for you works, though it is nice to be able to say to the person what you think and ask questions on the spot."

At the beginning of the survey process I had a student ask point blank if they should answer honestly or if they should interpret what I would "want" them to say. I asked them to answer honestly so that I could obtain authentic results in my project. I mention this antidote, because I feel it strengthens the level of confidence, I can have in my data set. Many students in this age group tend to just speak their mind. A desire to leave particular impressions by filtering one's responses do not typically exist yet.

The last question in the survey was, "Should I continue to offer this form of feedback?" Two did not answer; one said no, two said maybe, and eight said yes. I felt that the qualitative feedback was informative and important to include because the feedback models were so close in their perceived effectiveness. The quantitative data was not by itself conclusive in delivering

whether or not video feedback had any efficacy. In addition, anything that can help motivate students to apply learning and keep their attention span is important. It gives them a chance to have a voice in their education experience. According to Fredricks, Blumenfeld, and Paris (2004), students have a perception of school to be boring and merely a game of putting forth the least effort possible to get a grade.

Discussion

The quantitative portion of the project suggests that the written feedback model is working well. Students answered the survey questions supporting that they were feeling helped and fairly evaluated. When the video feedback is compared, it was found that it did not have a perceivable difference in quality based on the enumerated data responses. That being said, video feedback was not significantly valued at a different rate than written feedback, which is interesting to learn.

The qualitative portion of the study helped dive deeper and draw more meaning from the comparison. Again, it supports what the quantitative data suggests: there was not a large difference. However, some anecdotes reported that they "liked it better."

I would like to suggest that feedback difference did not come out stronger due to the time of year. The required UAF Institutional Review Board (IRB) process was extremely drawn out; so instead of getting another two classes to include in the study in the Fall, I was limited to the Spring classes and by this time of the year, students at this age start to wain in their efforts. In addition to that phenomenon, many of the video production students were beginning to exceed expectations, so a complementary feedback video becomes less useful; thus, that category may have been artificially depressed. My sample size was also small, based on the time of year and time in the course, I was able to get started.

Since students could opt out, I believe that lead to a limitation in the chosen study design. First, the students who opted out could not share that video feedback did not help them or hurt them for that matter. Therefore, I am only reaching students who did not mind having to take a few surveys. Second, by definition, this means results are not very generalizable to the general classroom. Finally, it forced me out of using focus groups due to fear of causing the participants' group to lose too much work time, or to hold up their group if members opted not to participate. If the study were to be conducted again, starting at the beginning of the Fall Semester or completing it over many years would help mitigate some of the limitations. Being able to include incentives for participation could potentially get a more representative sample as well. However, my fear with including an incentive is that it might influence students to answer the survey questions the way they perceive I want them to respond.

I personally began with a background in video, so I would argue, based on the class and their engagement, it could be worth the effort for me. However, beyond video production classes, based on the effort involved to make the feedback videos and the essentially equal valuation of the models, it is probably not worth it many teachers. A possible piece of evidence to encourage some teachers to try this method is the fact that there is a body of research suggesting that motivation is declining across grade levels (Eccles, Midgley, & Adler, 1984). Antidotally, I have noticed that given the very small amount of characters available to us as teachers to comment in Zangle on projects, a middle schooler has difficulty tracking where our feedback is relevant from time to time. In addition, all the students that do not care to read, are not motivated to read feedback can be reached through the videos more effectively. Based on the study I have conducted; I plan to use this method on only some of my lessons.

Conclusions

More research on video feedback on videos at the middle school is definitely warranted, considering the body of research supporting the use of more literacies in the classroom. Additional research into video feedback is also in order due to the evidence of higher engagement, better collaboration between teachers, and higher connections between student-teacher feedback strategies. Another conclusion that can be drawn is the need for specific and highly structured pedagogy when it comes to integrating any type of technology into the classroom. If one is too lax in designing the experience, the technology will only serve as a distraction.

If I had to change anything, I would conduct the study across more semesters. I feel that with outliers and such a small sample size, I want to reconduct the study before fully committing to video feedback or written feedback only format. By gathering more data, I feel the effect of outliers who simply picked answers randomly or read to quickly answering counter to the way they wished to answer, would be minimized. A further argument for collection of more data over more time, is that the effect of the video-feedback may have just needed more repetitions to show a measurable change in student outcomes. According to, Guadagnoli, Holcomb, and Davis (2002), the use of video feedback for learning the golf swing, can take time for positive outcomes to manifest themselves.

If you were to try and utilize video feedback in your classroom, I would suggest the following to set yourself up for success:

1. Obtain a modern computer
    a. With at least 16 GB of RAM
    b. A quad core processor

   c. A 512 GB solid state drive (SSD) at the minimum.

2. ScreenFlow - $129 (cost as October 2019)
3. Headset with a microphone

I would then suggest practicing with the setup, comment on a trailer and get familiar with the format before you provide feedback to students. Avoid the stress of having to figure it out on a hard deadline. I would then suggest configuring ScreenFlow to auto-compress and upload to a private YouTube channel, which will save a lot of configuration time. Any solution that offers more analytics will be of benefit to you, one specific suggestion I can recommend is using YouTube especially since there is integration already with ScreenFlow. I was not able to do this because of district considerations, which block YouTube for students at the Anchorage School District. I suggest using YouTube over the Google Drive solution, because YouTube can provide a plethora of additional quantitative data and analytics with which one can further study the efficacy of the video feedback. If you go into the backend of a YouTube channel by logging into your account, clicking on your avatar, clicking on YouTube Studio Beta, and then finally clicking on analytics, you can look at the following stats including but not limited to: duration of the viewing session, the number of likes or dislikes, dates it was watched, and average age of viewer watching the video. I suggest this over the method I used to conduct the research so you have more ways to analyze your data. According to Hsiao, Huang, Lu, Yin, and Yang (2018), using analytics like those mentioned above have gained momentum as a standard measure to analyze student engagement. This could give one another metric to consider when determining efficacy of video feedback.

Considering all of this, this study will lay the foundation for helping teachers to determine if video feedback is effective in their middle school video production classes.

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Appendix A

Assent Form

Video Feedback Participatory Research: A focus on efficacy in the delivery of video feedback.

IRB # 1306101-2

Date Approved 4-8-2019

Description of the Study:

I am doing a study about video feedback. The goal of this study is to test your teacher's hypothesis that video feedback is the most beneficial way to deliver feedback to middle school students; if found to be of benefit, video feedback will become the primary means of providing feedback to students. I am asking you to be part of the study because your teacher plans to use video feedback in your classroom. Your parent/guardian has said that if you want to be part of the study, it is ok. You are invited to ask any questions you may have now or at any time during your participation. You will get to participate in the lessons, whether or not you choose to be a part of the study. If you decide to be part of this study, you will complete surveys that will help determine the feedbacks usefulness.

Risks and Benefits of Being in the Study:

This study does not have anything meant to hurt you or make you feel bad. If it makes you upset or feel bad, you can stop at any time. Nothing bad will happen to you if you stop being in the study. If you want to stop, tell your teacher or stop filling out the survey.

We think that participating in this study will help you learn about using video in another way and to help your next video projects.

Confidentiality:

When we tell other people about our study, we will not tell them that you were in the study or what your answers to the questions were. Your videos and the video feedback will be stored in the Google Drive/Classroom environment. The class is accessed solely via a code that Mr. Fliss maintains, and thus, it is not public. He will have access to the videos and as your teacher and the researcher.

Voluntary Nature of the Study:

You get to choose whether or not to be in the study. Even though your parent/guardian said it was ok, you don't have to be part of the study. Even if you decide you want to be in the study, you can still change your mind later. If you want to stop being part of the study, tell your teacher or stop filling out the survey. If you decide to stop, we will not use any of your answers, and they will be discarded.

Contacts and Questions:

Please ask me any questions you have about the study now. If you have questions later, you can have your parent/guardian call:

Sean Topkok at 907-474-5537 or cstopkok@alaska.edu

Statement of Assent:

I know what this study is about, and my questions have been answered. I want to be part of this study.

If appropriate, you may want to add checkboxes about specific activities (examples follow):

- ☐ It is ok to take my picture
- ☐ I do not want you to take my picture

- ☐ It is ok to record what I say
- ☐ I do not want you to record what I say

- ☐ It is ok to record a video of me
- ☐ I do not want to be in the video

Child's Printed Name

Signature of Child (if age appropriate) & Date

Appendix B

Informed Consent Form (for participation in)

Video Feedback Participatory Research: A focus on efficacy in the delivery of video feedback.

IRB # 1306101-2

Description of the Study:

Your student is being asked to take part in a research study about video feedback. The goal of this study is to learn whether the additional effort in video feedback delivery provides students with worthwhile benefits. Your student is being asked to take part in this study because they are enrolled in video production for this semester. Please read this form carefully. I encourage you to ask questions and take the opportunity to discuss the study before deciding.

If you decide your student can take part in the study, they will be asked to take two short surveys. One, before the video feedback strategy is used. The second, after they have experienced the coursework using video feedback. As part of the class, they will receive written feedback on their videos. If they opt-in the study, it will be delivered via a recorded video.

Risks and Benefits of Being in the Study:

There are no major risks to your student if they participate in this study. Your student's participation in this program will help us create better feedback strategies. As a participant, there may not be a direct benefit to your student from this study. However, by being a participant of this study, your student's contributions will make a deep impact on the next video production

class. It may have a direct benefit to those students that choose to sign up for advanced video production in the future. There is no guarantee that your student will benefit directly from taking part in this study. This study may be beneficial to other video production classes in Anchorage as well. If you would like to review the project in its entirety, it will be housed with Dr. Sean Topkok <cstopkok@alaska.edu>, (907) 474-5537.

Confidentiality:

Because I am conducting this study as a part of my research through the University of Alaska Fairbanks (UAF), the results will be available to other people. Every effort to protect their identity will be made. This signed release form will be stored securely and separate. This will make it difficult to link your student to this study. Only I will listen to their video projects your student turns in, and I will transcribe the parts that I need. No video will be shared. The final projects will be archived in Google Classroom at the end of the year. The Google Classroom is coded and not open to the public. You may request any copies of recordings of your student for your own use.

Voluntary Nature of the Study:

Your decision for your student to take part in the study is voluntary. You are free to choose not to take part in the study. You can also stop taking part at any time without any penalty to your student.

Contacts and Questions:

If you have questions now, feel free to ask me. If you have questions later, you may contact me at 907-742-5200 or fliss_chris@adsk12.edu or my committee chair Dr. Sean Asiqluq Topkok at 474-5537 or cstopkok@alask.edu

If you have questions or concerns about your rights as a research subject, please contact the Research Coordinator in the Office of Research Integrity at 474-7800 (Fairbanks area) or 1-866-876-7800 (outside the Fairbanks area) or uaf-irb@alaska.edu.

Statement of Consent:

By signing this form you agree that you understand the procedures described above, your questions have been answered to your satisfaction, and you have been provided a copy of this form. You agree to participate in this study in the specific activities initialed below.

_____ I consent to allow my student to participate in receiving video feedback on their work.

_____(student's printed name).

_____

Signature and Printed Name of Subject & Date

_____

Signature of researcher, Chris Fliss & Date

Appendix C

Pre-video Feedback Survey

Rate each statement by clicking on the box below the descriptor.

1. My teacher gives me useful feedback about my course assignments.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

2. The feedback on assignments that I receive from my teacher is helpful.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

3. I value the feedback I receive from my teacher.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

4. The feedback I receive from my teacher helps me do quality work.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

5. The feedback on assignments I receive from my teacher is generally not very meaningful.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

6. My teacher is supportive when giving me feedback about my course assignments.

Strongly agree. Agree. Neither agree or disagree. Disagree Strongly Disagree

□ □ □ □ □

7. When my teacher gives me feedback on my assignments, he or she is considerate of my feelings.

Strongly agree. Agree. Neither agree or disagree. Disagree Strongly Disagree

□ □ □ □ □

8. My teacher does not treat people very well when providing feedback on assignments.

Strongly agree. Agree. Neither agree or disagree. Disagree Strongly Disagree

□ □ □ □ □

9. My teacher is tactful when giving me feedback on assignments.

Strongly agree. Agree. Neither agree or disagree. Disagree Strongly Disagree

□ □ □ □ □

Appendix D

Post-video Feedback Survey

Rate each statement by clicking on the box below the descriptor.

1. My teacher gives me useful feedback about my course assignments.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

2. The feedback on assignments that I receive from my teacher is helpful.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

3. I value the feedback I receive from my teacher.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

4. The feedback I receive from my teacher helps me do quality work.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

5. The feedback on assignments I receive from my teacher is generally not very meaningful.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
☐	☐	☐	☐	☐

6. My teacher is supportive when giving me feedback about my course assignments.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
□	□	□	□	□

7. When my teacher gives me feedback on my assignments, he or she is considerate of my feelings.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
□	□	□	□	□

8. My teacher does not treat people very well when providing feedback on assignments.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
□	□	□	□	□

9. My teacher is tactful when giving me feedback on assignments.

Strongly agree.	Agree.	Neither agree or disagree.	Disagree	Strongly Disagree
□	□	□	□	□

10. Is there anything you would like to add to compare the types of feedback you have received? Please write here any feedback you have.

11. Should I continue to offer this form of feedback?

□ Yes

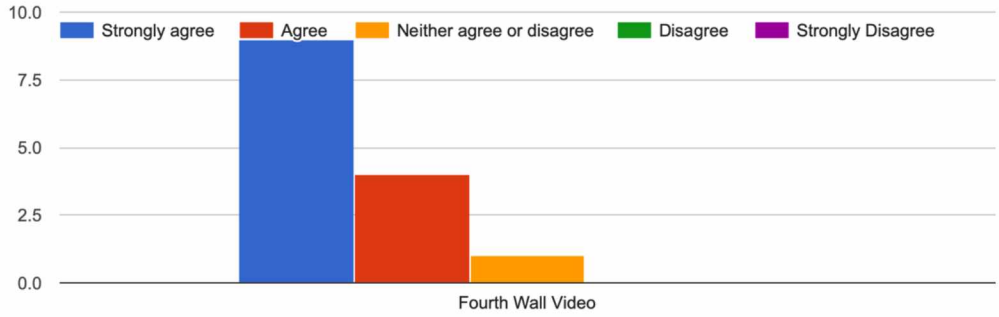
□ No

□ Maybe

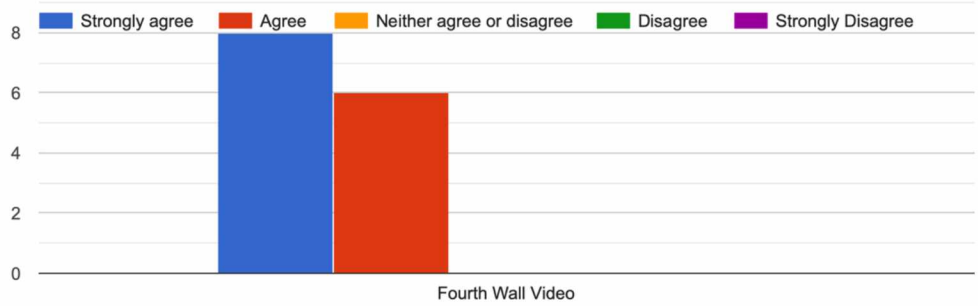
Appendix E

Written feedback survey results

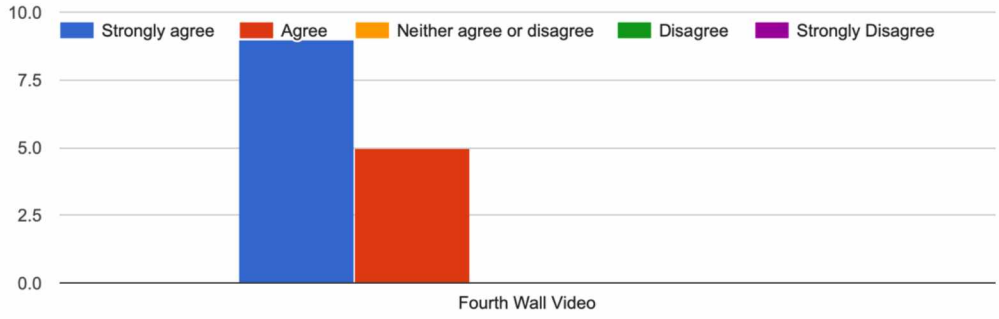
1. My teacher gives me useful feedback about my course assignments.



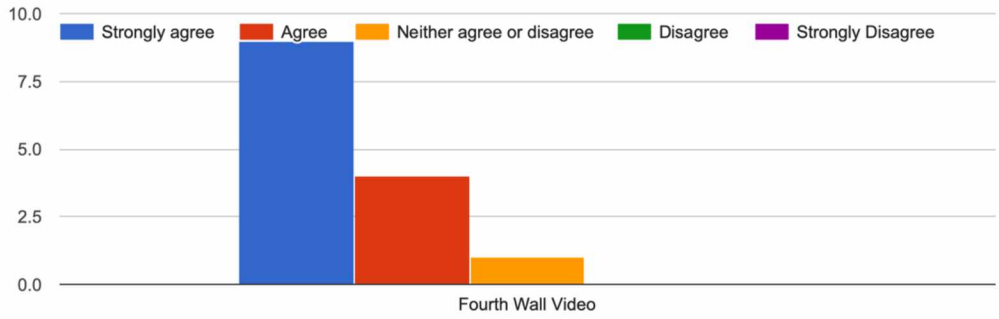
2. The feedback on assignments that I receive from my teacher is helpful.



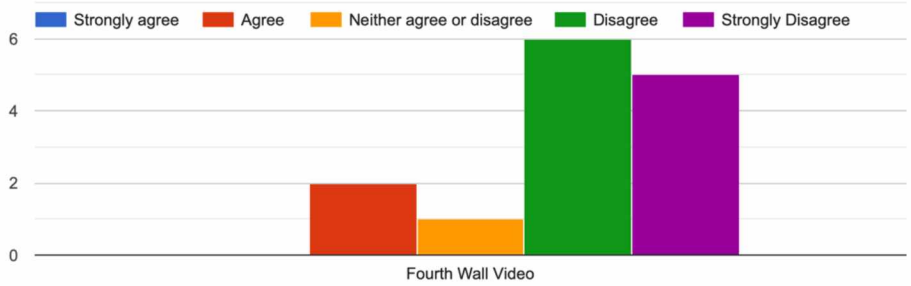
3. I value the feedback I receive from my teacher.



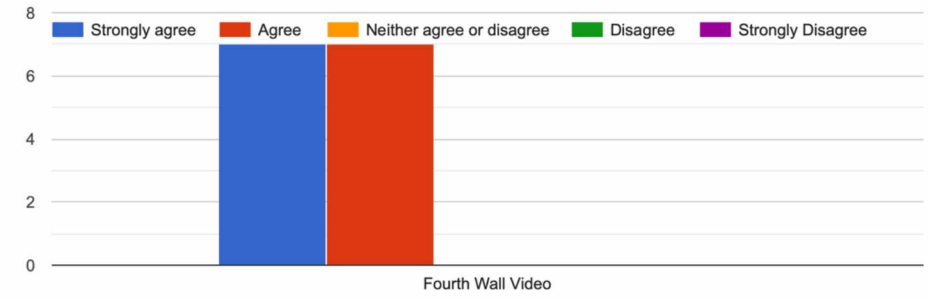
4. The feedback I receive from my teacher helps me do quality work.



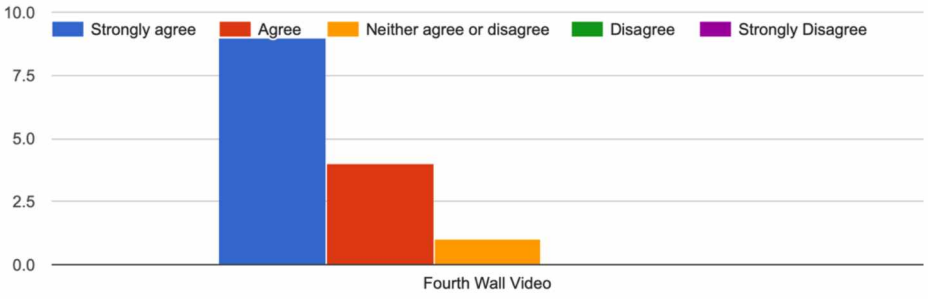
5. The feedback on assignments I receive from my teacher is generally not very meaningful.



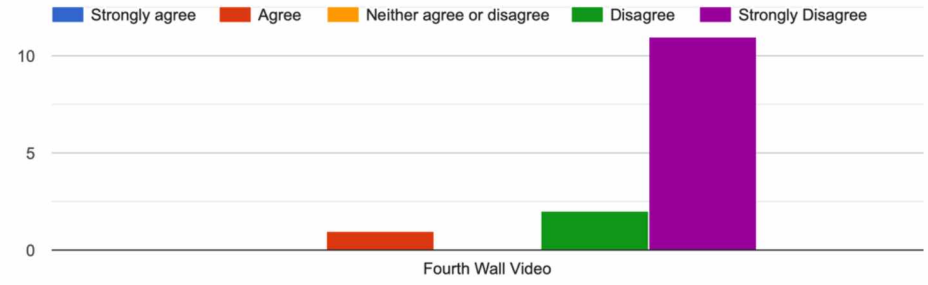
6. My teacher is supportive when giving me feedback about my course assignments.



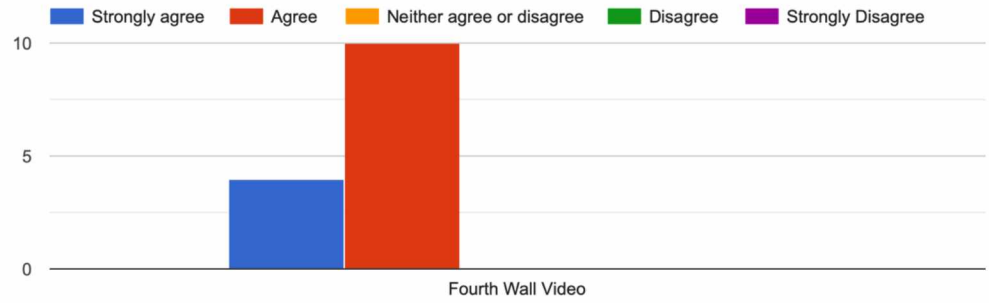
7. When my teacher gives me feedback on my assignments, he or she is considerate of my feelings.



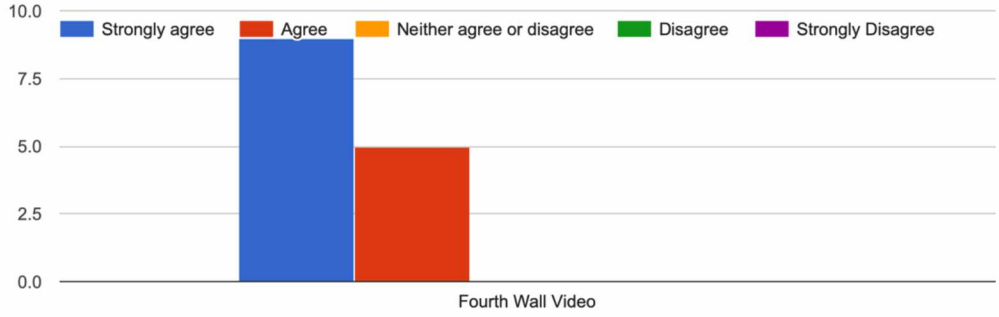
8. My teacher does not treat people very well when providing feedback on assignments.



9. My teacher is tactful when giving me feedback on assignments.

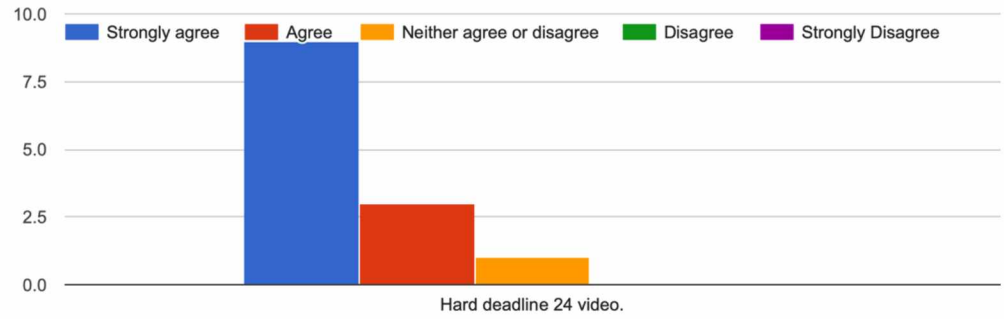


10. My teacher gives me useful feedback about my course assignments.

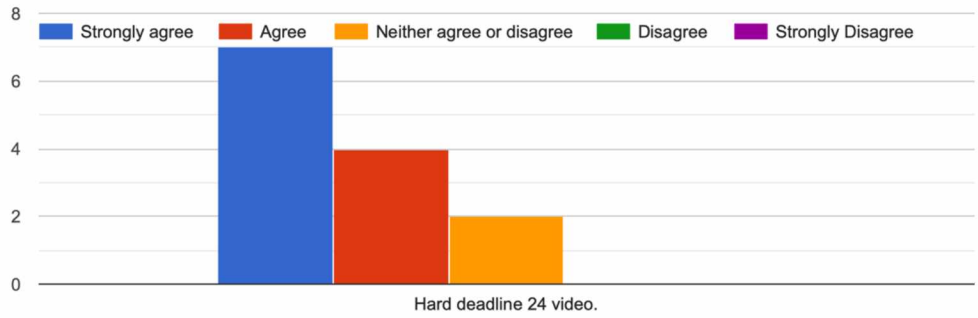


Post video feedback survey results

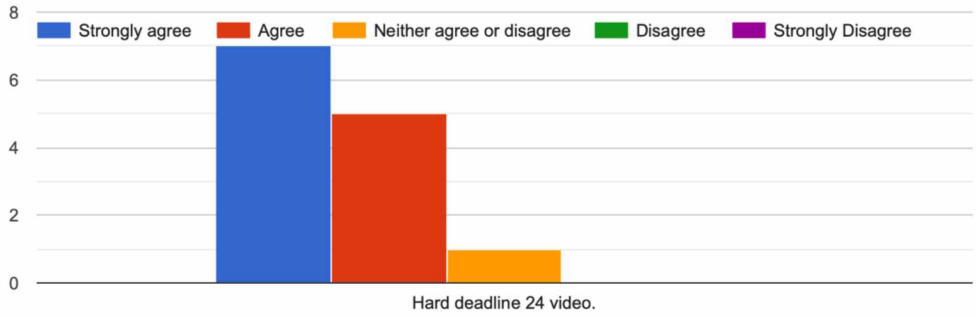
1. My teacher gives me useful feedback about my course assignments.



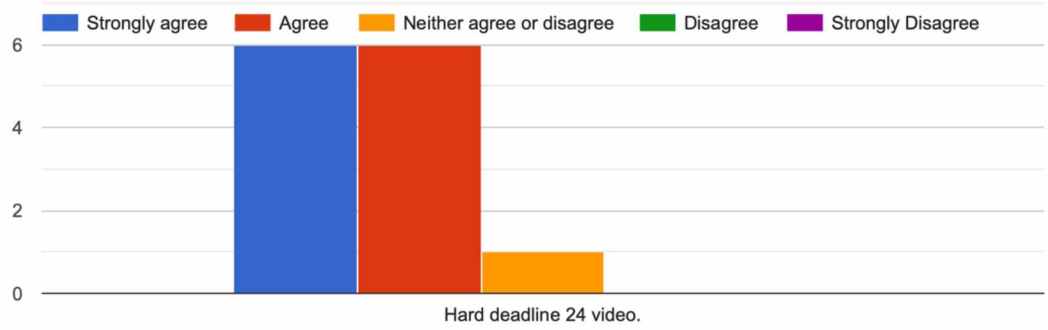
2. The feedback on assignments that I receive from my teacher is helpful.



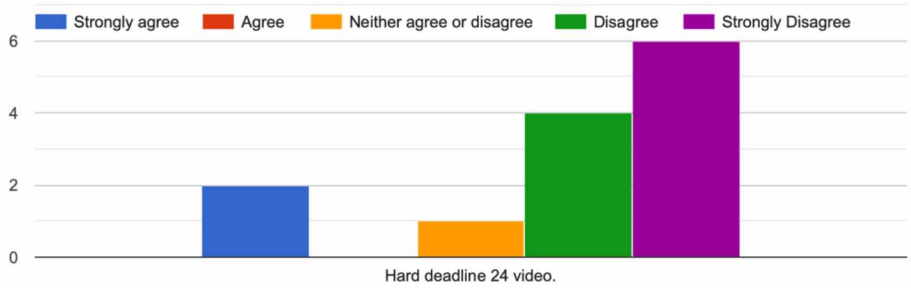
3. I value the feedback I receive from my teacher.



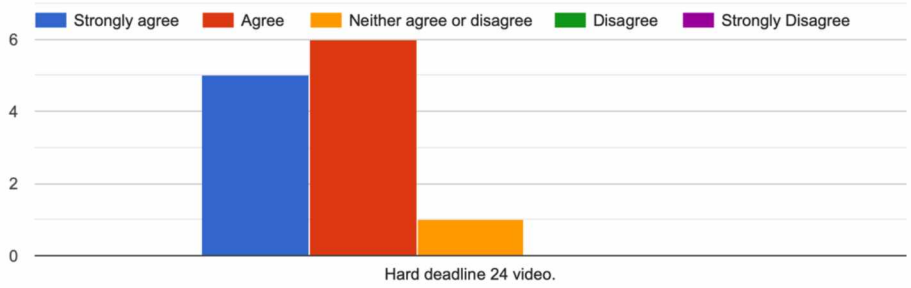
4. The feedback I receive from my teacher helps me do quality work.



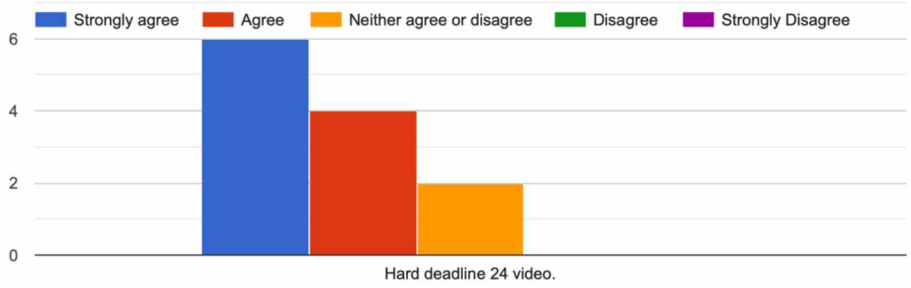
5. The feedback on assignments I receive from my teacher is generally not very meaningful.



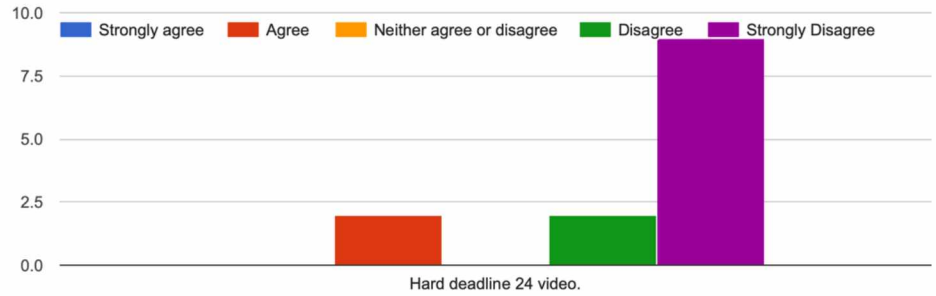
6. My teacher is supportive when giving me feedback about my course assignments.



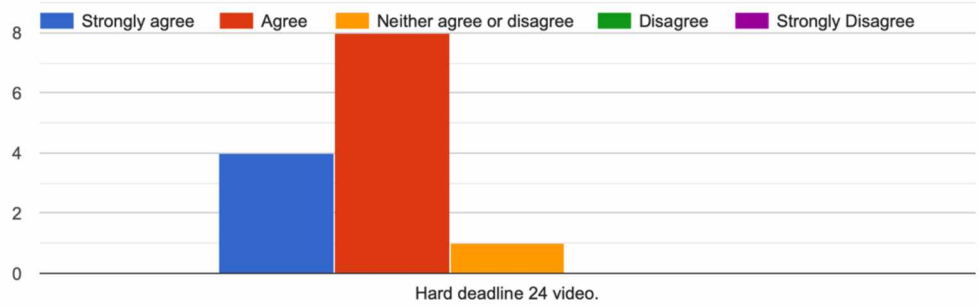
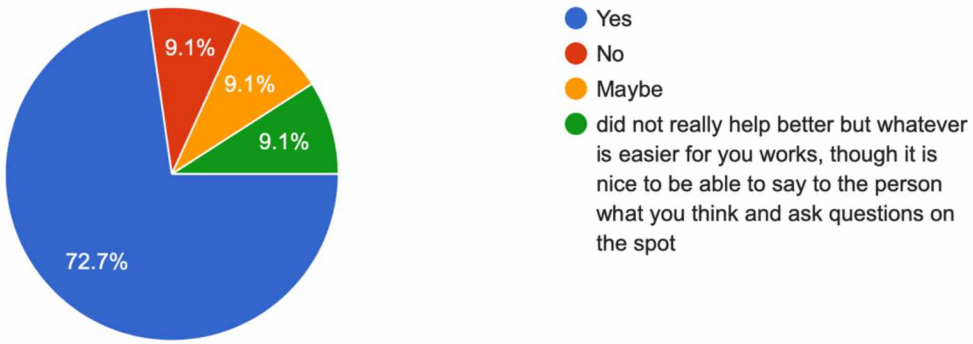
7. When my teacher gives me feedback on my assignments, he or she is considerate of my feelings.



8. My teacher does not treat people very well when providing feedback on assignments.



9. My teacher is tactful when giving me feedback on assignments.



10. Should I continue to offer this form of feedback?