The Audio/Video Link: Students Choice of Audio and Video in an Asynchronous Online Course and the Link to Social Presence

Action Research Report

Dani Carpenter
Cindy Harris
University of Colorado/Denver
May 4, 2013

Introduction & Problem Statement

We are students in a graduate program in information & learning technology at a mid-western university, and as such we are continually exploring new ways of designing engaging and effective online instruction.

As enrollment in online courses has exploded, the true value of online learning has come into question. A recent New York Times (2013) editorial entitled *The Trouble with Online Colleges* concludes by stating "The online revolution offers intriguing opportunities for broadening access to education. But, so far, the evidence shows that poorly designed courses can seriously shortchange the most vulnerable students." (p. A22) The need for improved, effective, innovative solutions for teaching and learning in the online environment is both evident and imminent.

The Community of Inquiry (CoI) framework provides insight into the issue of effective teaching and learning which may be especially applicable to online course design. The CoI framework is composed of three presences: teaching, cognitive, and social. Teaching Presence is "…the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes (Anderson, Rourke, Garrison, & Archer, 2001, p. 5). Social presence is defined as "the ability of participants in the community of inquiry to project their personal characteristics into the community, thereby presenting themselves to the other participants as 'real people.'" (Garrison, Anderson & Archer, 1999, p. 89). Cognitive presence is " …the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication." (Ibid). Garrison et al (1999) explain the role of social presence in learning as such: "The primary importance of (social presence) is its function as a support for cognitive presence, indirectly facilitating the process of critical thinking carried on by the community of learners. However, when there are affective goals for the educational process, as well as purely cognitive ones, (i.e., where it is important that participants find the interaction in the group enjoyable and personally fulfilling so that they will remain in the cohort of learners for the duration of the program), then social presence is a direct contributor to the success of the educational experience." (p. 89)

Figure 1. Community of Inquiry Model
Source: Garrison, Anderson & Archer, 1999

Within online courses, students and instructors communicate with each other in a variety of scenarios including discussions, providing input and feedback, collaborating on projects, instruction and lectures. To date, the bulk of communication has been in text format. Audio and video bring the ability to hear and see nuances of vocal and facial expression to online learning, and have been shown to increase feelings of social presence in online courses. (Aragon, 2003) Although most contemporary learning management systems (LMS) include capabilities for communication in audio and video format, the process of recording audio and video and uploading it to the course involves several time-consuming steps. The university began transitioning to a new LMS named Canvas this semester, which includes tools for recording audio and video directly within the LMS, thus making it simple efficient for students and instructors to use these tools.

Given this new ease of communicating using audio and video, we want to learn when and why students use audio and video to participate in an asynchronous online course and with the instructor, and if that participation enhances social and cognitive presence. If the use of audio and video enhance social and cognitive presence in online environments, courses designed to exploit these tools may result in improved online learning, and begin to stem the tide of ineffective online instruction.

Purpose and Intended Audience

The purpose of this action research project is to learn if student and instructor use of audio and video in an asynchronous online learning environment increases feelings of social presence and supports cognitive presence. Learning how audio and video impact teaching and learning will help us to design online instruction that makes the best use of these tools. The intended audience for this research is students in a graduate course in the information and learning technology program, the course instructor, as well as department faculty who may have an interest in the topic.

Research Questions

As a means for examining student and instructor preference for audio and video in an asynchronous online learning environment and the impact of audio and video on feelings of social and cognitive presence, we collected data on frequency of posts in audio and video format and surveyed students and the instructor to learn about their experiences with and impressions of these media.

In our initial Action Research Proposal, we listed the following research questions:

Questions 1-4 were designed to learn when students enjoy using audio and video in an asynchronous online class. The results of this inquiry may be taken into consideration by students when choosing which format to select for posting, commenting, and providing feedback.

1. How often did students post to discussion threads using each, text, audio, and video?

   We wanted to learn how frequently students are using the audio and video feature of the LMS.

2. In which situations do students want to post using text, audio, and video?

We wanted to learn when students prefer the audio and video options, for example, posting their initial post to a discussion thread, commenting on other's posts, providing feedback on projects, etc.

3. Which format, text, audio, or video, do students prefer for reviewing classmates' posts and feedback?

   We wanted to know when students want to review classmates' contributions in text, audio, and video format.

4. Why do students prefer text, audio, or video for reviewing classmates' contributions?

   We wanted to know why students prefer each format.

5. When do students prefer instructor communication in text, audio, or video; for example, instructor posts to discussion threads, personal feedback and coaching on projects, or when communicating methods and procedures.

   We wanted to know when students prefer audio and video communication from the instructor. The results of this inquiry may be taken into consideration by instructors when choosing a format for each type of communication.

6. In an asynchronous online course, does participating and interacting using audio and video enhance students feeling of social presence?

   We wanted to know if in addition to acting as a means of communication, audio and video contribute to feelings of social presence.

These initial questions focused solely on peer-to-peer communication and did not include the aspect of cognitive presence. After completing our literature review, we chose to modify our questions and include instructor communications, which was the focus of much of the literature, and include questions relating to cognitive presence, which was also a prominent feature in the literature. We modified our research questions as follows

1. Which format; text, audio, or video, do course participants prefer for posting and reviewing posts to discussion threads, and providing and receiving feedback on assignments?

   We wanted to learn about participants' preference for each format.

2. Which format; text, audio, or video, do students prefer for communicating with the instructor, and why?

   We wanted to learn which format students favored for communicating with the instructor and why they preferred this format over others.

3. Which format; text, audio, or video, do students prefer for receiving communications from the instructor, and why?

We wanted to learn about students' preference for instructor communications and reasons for their choice.

4. Does participating and interacting in course discussions using audio and video enhance feelings of social presence?

   We wanted to learn about participants' reactions to audio and video as a means of communicating and if they experienced increased feeling of social presence as a result of these formats.

5. Does participating and interacting in course discussions using audio and video enhance feelings of cognitive presence?

   We wanted to learn about participants' reactions to audio and video interactions and if they experienced increased cognitive presence as a result of these formats.

Context of Study

With more than 6.7 million students in higher education enrolled in at least one online course, today's online learning is a far cry from its distance education predecessor, often characterized by correspondence courses and diploma-mill operations. And yet, even with a vast array of technological tools, increased digital literacy, and advancements in pedagogy tailored to online learning, the range in quality of online courses runs from dismal to outstanding. Many instructors enter the online environment with fear and trepidation, sensing that what works in the classroom may not hold up in the virtual world. Many students jump at the chance to ace easy online courses, only to find themselves with more work than in the traditional classroom, and demands to participate in discussion threads a prescribed number of times. There is no doubt that designing online instruction is relatively new territory in this, the digital age. As more courses come online, more instructors enter the arena of virtual instruction, and more students opt for online classes, the need for new teaching methods that make full use of the technology at hand to support teaching and learning becomes apparent.

The university in which this action research study was conducted provides both face-to-face and online courses. It is located in a large metropolitan city, and draws a diverse group of students from a wide range of social, economic, and educational backgrounds. Students in online classes are dispersed throughout the continent and the world. These students bring a variety of work and life experiences to the classroom. The information and learning technologies graduate program prepares students to excel in instructional design, K-12, higher and adult education.

In response to complaints from instructors and students about eCollege and Blackboard, the university chose to conduct a pilot study of Canvas, a new LMS. The semester in which this research was conducted was the first use of Canvas, and the course that was the site of this research was a participant in the pilot study. Feedback has been compelling enough that the university will begin using Canvas in place of eCollege and Blackboard in the coming academic year.

Students and instructors in this program use audio and video in a variety of ways. Instructors embed audio and video content in courses, participate in discussions and provide instruction and feedback via audio and video. In addition to communicating via audio and video, students learn to create different kinds of audio and video components, from digital storytelling

to complete film presentations, for online learning offerings. Both eCollege and Blackboard, the LMS used by the university in addition to the Canvas trial, allow participants to upload audio and video files. Although students gain technical expertise with different media tools as they progress through the program, text remains the dominant form of communication.

Students participate in the course in which this research was conducted primarily through discussion threads and peer reviews. Canvas includes email and chat room type features as well, allowing students and the instructor to communicate, share information and ask questions. The instructor uses these communication areas in addition to providing an introduction to each week's activities in the "Modules" area and feedback in the "Assignments" area. Within the posting area for each of these communications is a recording icon. Course participants may simply select the audio or video recording option and record directly within the LMS via their computers' microphone and camera. The recording feature allows for playback, permitting users to review their recordings prior to submitting. If the user is dissatisfied with the recording, s/he may simply re-record or choose to use a different format.

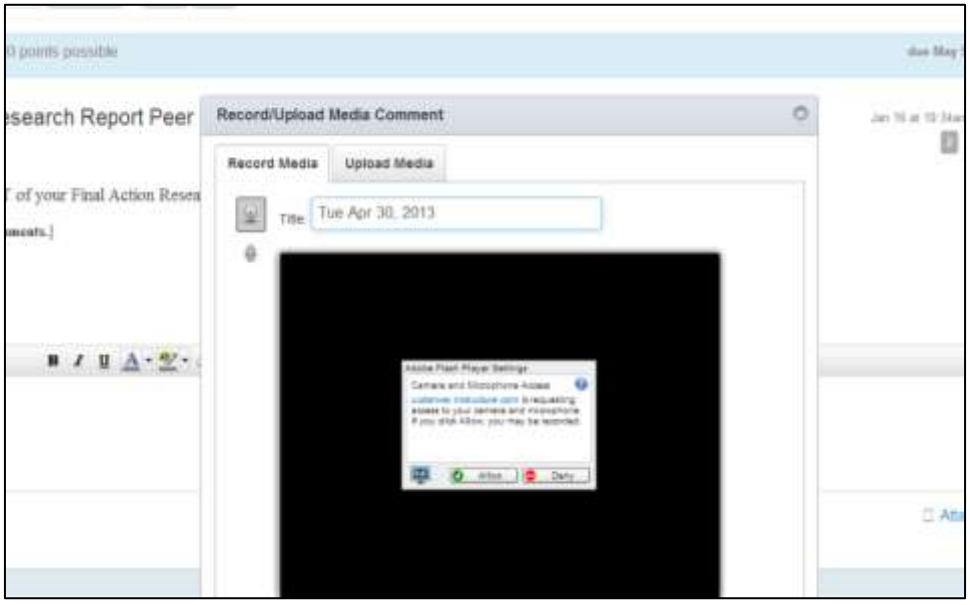


Figure 2. Screenshot of the recording function within a discussion thread in Canvas

At the onset of the semester students were asked to respond to an interesting question as an icebreaker/introduction activity using the recording feature. The instructor completed this activity in video format. As the semester ensued, the instructor provided direction and feedback on several occasions in audio and video. Prior to the start of this research study, students in this course communicated predominantly via text.

As graduate students this online program we have been fortunate to experience innovative, up to the minute methods in online course design and instruction, and participate in courses using text, audio, and video. We know our situation is not the norm however, and have heard more complaints about online learning experiences than accolades. We are excited to see LMS evolving quickly to adapt to new directions in online teaching and learning, and eager to exploit their capabilities. While using audio and video to participate in courses today may be a little new to most learners, its second nature for the group of learners who are hot on our heels. We are interested in learning how best to use audio and video to both facilitate learning and enhance social presence.

Literature Review

The purpose of this literature review was to assess current research on social and cognitive presence in online instruction and the effects of audio and video on feelings of social and cognitive presence. This research is important to our action research project because we want to learn how best to use audio and video in course design to support social and cognitive presence.

The following questions guided our literature search:

- What is the role of social presence in online instruction?
- Does the use of audio and video increase feelings of social presence?
- Does the use of audio and video support cognitive presence?

Literature Search Procedures

We began our research using Google Scholar to locate journal articles on social presence and the use of audio and video in virtual learning environments. We limited our search to peer-reviewed professional journal entries. We used combinations of the following keywords to get a feeling for the research:

> Social presence, student social presence, instructor presence, online higher education, adult online learning, instruction, audio video, feedback, communication, audio video, learning, virtual environment, asynchronous.

As expected, these keyword searches led to an enormous number of entries; for example, a keyword search containing the words “audio video social presence online higher education” resulted in 37,300 entries. A quick survey of 25 articles and abstracts revealed predominantly instructor-focused strategies for creating social presence. A similar keyword search containing the words “audio video student social presence online higher education” limiting results to articles published 2005-2013 brought 17,900 results, also highlighting instructor-focused strategies for creating social presence. These large searches led us to key overview articles containing information on social presence in online education and a smattering of information on audio and video and social presence.

From our key articles we took our search to the Auraria Library. We conducted two kinds of searches: a search for articles listed in the references of our key overview articles and keyword searches. A keyword search containing the words “student social presence” took us to the Science Direct database which hosts the Internet and Higher Education Journal. Conducting the same keyword search in the Internet and Higher Education Journal resulted in 175 entries. A modified search using the same words and “audio video” brought 52 results. We conducted similar searches in ERIC and Academic One File. This overall search process was most beneficial in leading us to scholarly journals on technology and education.

Findings

We have assembled the results of this literature review into two topic areas: the identification and role of social presence in online instruction and audio and video in relation to social and cognitive presence.

Social Presence in Online Instruction

Social presence is the ground from which interpersonal relationships grow, and is measured by the degree to which participants feel a sense of belonging and mutual trust. (Borup, West, & Graham, 2012; Hardham, Richardson, Ross, & Ryman, 2010; Wei, Chen, & Kinshuk, 2012). Wei et al (2012) citing Short, Williams & Christie, explain "The perceived social presence is an individual's sense of interpersonal relationship influenced by the interchange of verbal and non-verbal cues." (p. 530)

Benjamin Kerhwald (2008) describes the functioning of social presence in the online environment as:

> … The way individuals represent themselves in their online environment. It's a personal stamp that indicates that the individual is available and willing to engage and connect with other persons in their online community. Social presence is demonstrated by the way messages are posted and how those messages are interpreted by others. Social presence defines how participants relate to one another which in turn affects their ability to communicate effectively (p. 94).

Wei et al. (2012) state that "social presence is an essential element for promoting learning interaction, especially in the online learning context." (p. 530).

Social presence has been found to support cognitive presence. Students who reported strong feelings of social presence also indicated they felt they learned more from discussions and other class interactions than students with weak feelings of social presence. (Richardson & Swan, 2003; Swan & Shih, 2005). Steven Aragon (2003) found "An additional benefit of social presence…is its ability to instigate, sustain, and support cognitive and affective learning objectives by making group interactions appealing, engaging, and intrinsically rewarding." (p. 61). Additionally, Richardson and Swan (2003) noted "…students perceive the presence of others in their learning experience as an essential part of it and that student's perceptions of satisfaction with an instructor are related to their perceptions of social presence." (p.78-79).

Audio & Video Use in Relation to Social and Cognitive Presence

Social presence relies in part on participants' interpretation of aural and visual cues. Brown & Kiriakidis (2007) tell us:

> Multimedia technologies (e.g. text, graphics, sound, audio, video, and animation) support online teaching, learning, and training. The use of multimedia stimulates discussions and can relay what may be lost in the lack of facial expressions, vocal intonations, and body language in online courses. Computer-mediated communication technologies promote "reflective and critical thinking' (Overbaugh, 2002) and deep and meaningful learning to occur in the online learning environment via email, forums, chat, and videoconferencing

(p. 51).

While audio and video have been used in online courses for many years, emerging technologies have made the process relatively easy for students and instructors to use. Ample research has been conducted on the use of audio to support social presence, we found very little on video, perhaps due to the difficulty of creating video up to now. Borup, et al. (2012) state "As yet there is little research on how instructors can effectively use asynchronous video to strengthen social presence (and by extension cognitive presence) and how students perceive their experience in video-mediated environments." (p. 196).

Audio has been incorporated in online learning environments frequently in an attempt to provide a more "real" or "live" environment. Steven Aragon (2003) believes using audio helps to create social presence by reflecting the emotions of the instructor to the students and in turn provide the students an opportunity to do the same amongst their peers. It has been shown that the cohesive indicators, such as a sense of commitment and closeness, of social presence were higher in groups receiving audio feedback than groups only receiving text feedback. (King, K. & Ellis, T.J., 2009).The use of audio has also been attributed to student's perceptions of the "human-ness", attentiveness, and increased caring on the part of the instructor (Borup et. al.,; Ice, Curtis, Phillips, & Wells, 2007; Richardson & Swan). Use of video feedback by the instructor was also cited in helping students to understand the instructor's personality, giving them a feeling they *know* instructor, feeling familiar or close to them. (Borup et al).

Students indicated that they retained information and were able to synthesize instructor comments better when they received audio feedback. Additionally, information for which audio feedback was provided was used more frequently than information for which text based feedback was provided *and* they applied in more cognitively complex ways. (Ice et al.; Borup, et al). Research also indicates that in some cases, students prefer text or a combination of audio and video (King & Ellis; Borup, et al).

Research indicates that audio, and video to the extent it has been studied, support cognitive presence. In the case of using audio to provide feedback to students vs. text, students' enhanced ability to detect nuance impacted student perceptions of the instructor's use of humor, and openness toward and encouragement of student ideas and discussion (Ice, et al). Although audio communication contains vocal cues, it lacks visual cues such as facial expressions and hand gestures (Borup et al). In one study, video communication from an instructor was perceived by students as improving the instructor's teaching and giving the students the feeling of being in a "real" classroom.

Social and cognitive presence as pieces of the CoI framework are essentially understood, and although research to date confirms that audio and video interactions in asynchronous online courses support social and cognitive presence, we do not yet understand how to make optimal use of these tools in course design. Cui, Lockee & Meng (2012) noted: "Due to the isolated nature of online learning, it is of great significance to consider strategies for developing social presence in the online environment. But currently, the systematic models and principles of designing online social presence are far lagging behind the research of social presence measurement and its effectiveness." (p. 20). Additionally, Garrison and Anderson (2003) caution that social presence in an online learning environment may actually have unintended consequences, and points to that which is still not know about online interactions: "As students perceive their peers as real people with emotions they maybe less likely to criticize or challenge their peer's ideas because they might offend or their peers." (p. 202).This in turn would suggest that video, in which participants' face, body, and environments are visable, may

further humanize instructors and learners, and perhaps lead to too much social presence and less effective learning.

Quality of Literature

This literature review was conducted using only sources from peer-reviewed scholarly journals, and as such, we are confident in the authors' findings and conclusions. Several researchers noted the dilemma of putting the research findings to use: while acknowledging relationships between instructor and student use of audio and video as a means of increasing social presence, the question arose as to precisely when to apply the each format in online learning environments. We found the majority of the studies we reviewed included participants at the undergraduate or higher level and were conducted in asynchronous classes where the instructors were familiar with and had previously taught courses in an online learning environment. Additionally, we noted that some studies used very small (12-14 participants) or demographically limited (specifically, gender limited) surveys, and that some surveys produced only qualitative data. We noticed the same citations in much of the literature, which led us to conclude that several articles are key to the topic.

Gaps

We noted several gaps in the literature. As mentioned previously, there is little research available on the use of video in relation to social and cognitive presence. We found most of the literature on social presence to be directed toward instructors, offering strategies for developing social presence. We found a noticeable gap in the literature relating to peer-to peer social presence and its effects on peer learning. Additionally, we found a significant gap in the literature –which was acknowledged in the literature- regarding how to effectively use audio and video in course design.

Our action research project is important in that we are investigating the use and effects of both audio and video as well as instructor and peer-to-peer use of these tools. As such, we may be able to provide further insight into the pros or cons of such communications. We will also ask for instructor perspectives on increased social presence in an asynchronous classroom using audio and video discussion posts. This report may help designers incorporate audio and video in their courses to better support learning and peer-to-peer learning. Further investigation of the relationships and effects of the various forms of communication that occur withing the online learning environment will provide insight into best parctices for their use.

Methods

Our study concentrated on determining if the utilization of video and audio during course discussion posts and the frequency in the use of these media would affect student's social and cognitive presence in an asynchronous learning environment. As students participating in an asynchronous online degree program, we are aware of the benefits of social presence and questioned if the use of audio and video would increase a class's sense of community while improving cognitive presence. As we set out on this action inquiry, we remained dedicated to our findings so that our study might offer ways to change behavior and improve online learning environments.

Site selection and sampling

We chose our research site because of our ability to have full access to our participants without being disruptive to the students or instructor. Also, it was necessary to have the instructor's collaboration and support during the weeks where encouragement was provided to use audio and video communications.

During this study we worked with the professor instructing a class in Canvas. We collaborated to create events in which students were encouraged to provide input and feedback during course discussions in an audio or video format. During these events, the professor also participated by providing initial instruction in an audio or video format as well as provided feedback to student's conversations using audio or video discussion posts.

In addition to collaborating with the professor to create events which would directly encourage audio or video interactions between the professor and students, we attempted to promote these interactions by participating via audio or video.

Data Collection Methods

The first step in our data collection procedure was to obtain student and instructor permission to record and track their discussion posts. We sent an online consent form to the entire class. (Appendix A) This initially garnered about a 50 percent participation level from the class. In an attempt to have full class participation, we emailed students when they had contributed valuable information in the discussion threads, saying that we would like to include their thoughts in our study and would they consider signing the consent form. As a result, participation increased to 100 percent.

Next, in collaboration with the course instructor, our data collection concentrated on weeks nine and eleven. During these weeks the instructor encouraged students to participate in the course via audio or video as well as text, according to their comfort level. We agreed the instructor would further encourage audio and video participation by setting an example; the instructor did this by delivering the week's discussion assignment via audio or video, and provided ample feedback during discussions via audio and video.

We collected our data in two forms. First, we manually counted the total discussion posts from weeks' nine and eleven, and divided them into three categories: audio video and text. We collected these numbers the day immediately following the conclusion of each week's discussion. We only analyzed the posts existing at that time and did not retroactively check for or update the discussion post numbers. In addition to counting the type of posts, we recorded any comments specific to student's experiences using audio, video and text to participate during discussions.

Lastly, we designed a survey for students (Appendix B) and one for the instructor (Appendix C) to elicit overall feelings and impressions of how each media was used. The surveys were designed to gather data on preference of communication types from peers and the instructor, communication types to peers and the instructor, and overall sense of increased social presence in their online learning environment.

Data Analysis Methods

The first set of data collected was comprised of the total number of discussion posts, divided into three categories: audio, video and text. These categories were applied to week nine and eleven's discussions. There were two discussions in week nine and four discussions in week eleven. We created a data sheet that added the week's discussion posts and added each category of discussion posts, which provided us with a total of posts for all of discussions in weeks nine and eleven. We used these figures to determine student's frequency of posting via audio, video or text. Additionally, we collected student and instructor commentary on using audio, video and text to augment preferences for or against the three methods of communication.

The second set of data was collected from the surveys sent after week eleven to participating students and the instructor. The survey collected data to summarize student and professor experiences when posting to discussion threads via audio, video, or text. It also collected the student and professor experiences in receiving feedback or input via audio, video or text. This data was instrumental in establishing whether students feel the use of audio or video discussions help to increase the social presence in their online learning environment.

We began our analysis by reviewing all data collected. One researcher tallied communication posts in weeks nine and eleven and totaled the survey responses. Each of us reviewed the raw data independently several times. We then met by phone several times to discuss the data sets and organization.

We agreed to organize the data into three categories: communication preference, social presence, and cognitive presence, and reviewed the results within each category. By analyzing the quantitative and qualitative data, we independently identified the same four major themes or sub-categories that were evident within the communication preference category: time, location, technology, and self-image, which we confirmed by comparing both kinds of data. After discussing and agreeing on the themes, we then coded the qualitative data accordingly. We created charts to represent findings for the quantitative data, using the mode to center our findings. We also looked at individual responses across all questions to identify consistency.

Schedule

Course Week	Course Work	Action Research Activities	Data Collection	Survey
5	Action Research Proposal Due		n/a	n/a
6	Participate in course discussion	1. Create data collection chart for discussion posts	n/a	n/a
7	Participate in course discussion	n/a	n/a	n/a
8	Literature Review Due	1. Prepare student surveys	n/a	n/a
9	Participate in course discussion	1. Students will be encouraged to post their discussions and student feedback via video or audio for the week's assignments. During this week the professor will encourage all discussion posts be answered via video or audio. The professor will also encourage all student feedback be provided via video or audio. The professor will provide student feedback via video or audio.	n/a	n/a
10	Participate in course discussion	1. Tally all discussion posts, divide into three categories (audio, video and text) from week 9	1. All posts will be tallied and divided into three categories: audio, video and text	n/a
11	Participate in course discussion	2. Students will be encouraged to post their discussions and student feedback via video or audio for the week's assignments. During this week the professor will encourage all discussion posts be answered via video or audio. The professor will also encourage all student feedback be provided via video or audio. The professor will provide student feedback via video or audio.	n/a	n/a
12	Participate in course discussion	1. Tally all discussion posts, divide into three categories (audio, video and text) from week 11 2. Combine and analyze all data collected from discussion posts and from surveys	1. All posts will be tallied and divided into three categories: audio, video and text	Send survey for discussion posts feedback for weeks 9 &11
13	Research Findings Due		n/a	n/a
14	Participate in course discussion	Finalize Action research paper	n/a	n/a
15	Final Action Research Due		n/a	n/a

We had to amend our original schedule in order to give students time to accomplish course assignments without the added pressure of trying to participate in course discussions via audio or video. In collaboration with the instructor, we choose two weeks that had light course

work to allow freedom in communication choice. We also amended the schedule to give the instructor time to incorporate audio and video in the introduction for the weekly requirements for course work.

Ethical Procedures

We used a consent form *(*Appendix A) to ensure all students in the class understood how we would be using their post types, frequency of posts and to some extent, the content of their posts. We gave every student an opportunity to remove him or herself from our study at any time. And finally, we preserved all identities and information provided during our study.

Checks for Rigor

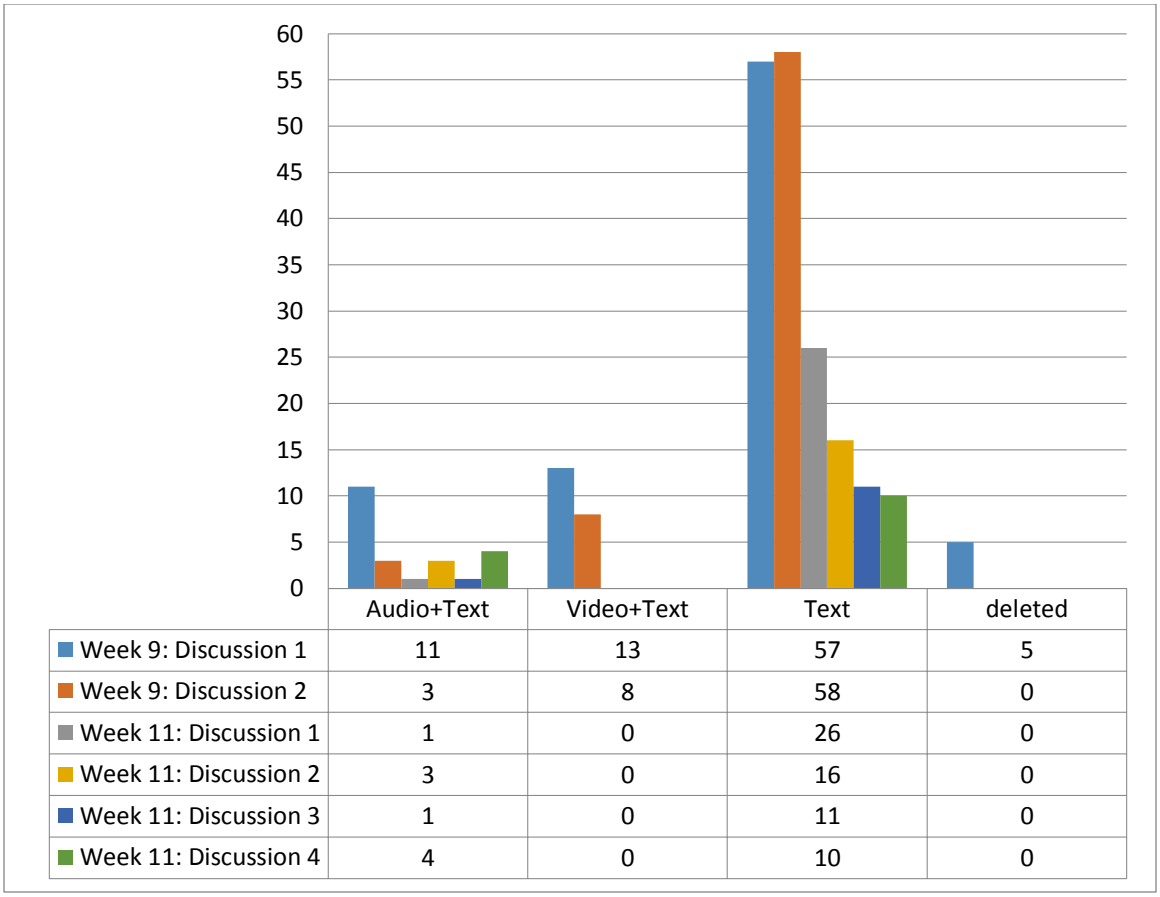
We have, as suggested by Stinger (2007) incorporated "checks to ensure that the outcomes of research are trustworthy – that they do not merely reflect the particular perspectives, biases, or worldview of the researcher…"(p. 57)

- **Triangulation:** Our study's credibility was enhanced with our choice to collect multiple sources of data, which included researcher observations and tallies of online discussion posts, a student survey and an instructor survey. We feel these varied methods of data collection tell the full story of our study.
- **Diverse case analysis:** In our study, we included *all* opinions reported to us in the surveys to draw our final conclusions. The survey responses were documented and included in our final results for review.
- **Transferability:** It is our intention to use this study as a jumping off point for future courses hosted in Canvas. As such, we have reported the details and context of all data collected so that it can be interpreted and applied to similar and future online learning environments created in Canvas.
- **Confirmability:** The results of all data collection tools will be available for inspection and review through the end of the present semester.

Research Findings

Communication Preference

To address the questions regarding preference for format; text, audio, or video, for posting and reviewing posts to discussion threads, providing and receiving feedback on assignments, and communicating with the instructor, we first collected data from the discussion post tallies to determine student/instructor preference for using audio, video or text while posting to discussion threads. These tallies indicated students/instructor posted most frequently, either for initial assignments *or* as feedback to their peers/instructor, via text. We also found when using audio and video, text most often accompanied these responses, either to summarize or augment their audio and video posts.



	Audio+Text	Video+Text	Text	deleted
Week 9: Discussion 1	11	13	57	5
Week 9: Discussion 2	3	8	58	0
Week 11: Discussion 1	1	0	26	0
Week 11: Discussion 2	3	0	16	0
Week 11: Discussion 3	1	0	11	0
Week 11: Discussion 4	4	0	10	0

Figure 3. Week 9 and 11 post format tallies

We asked students/instructor to comment on their comfort level while using audio, video and text while participating in course discussions. Of the fourteen people that responded to the survey, twelve chose always and the other two chose usually, to describe their comfort level using text to participate in course discussions. When describing comfort levels using audio to participate in course discussions, three students reported always feeling comfortable, five were usually comfortable and the rest of the class felt half way, seldom or not comfortable at all. When using video to participate in discussions, five students usually felt comfortable, and the rest of the class responded seldom or not comfortable at all (Appendix D). The instructor cited usually to describe her comfort level of using all three mediums; audio, video and text, while providing feedback to students during course discussions.

When asked, “If you could only use one method of communication to interact with your peers, which would you use”, 7 percent said audio, 14 percent answered video and 79 percent of the students who responded to the survey answered text. Although only 7 percent of students indicated they would prefer to use audio to communicate with their peers, one student did comment they liked audio “because it is a more personal connection.” When asked the same question for communications with their instructor, 7 percent stated audio, 36 percent said video and 57 percent specified text (Appendix E).

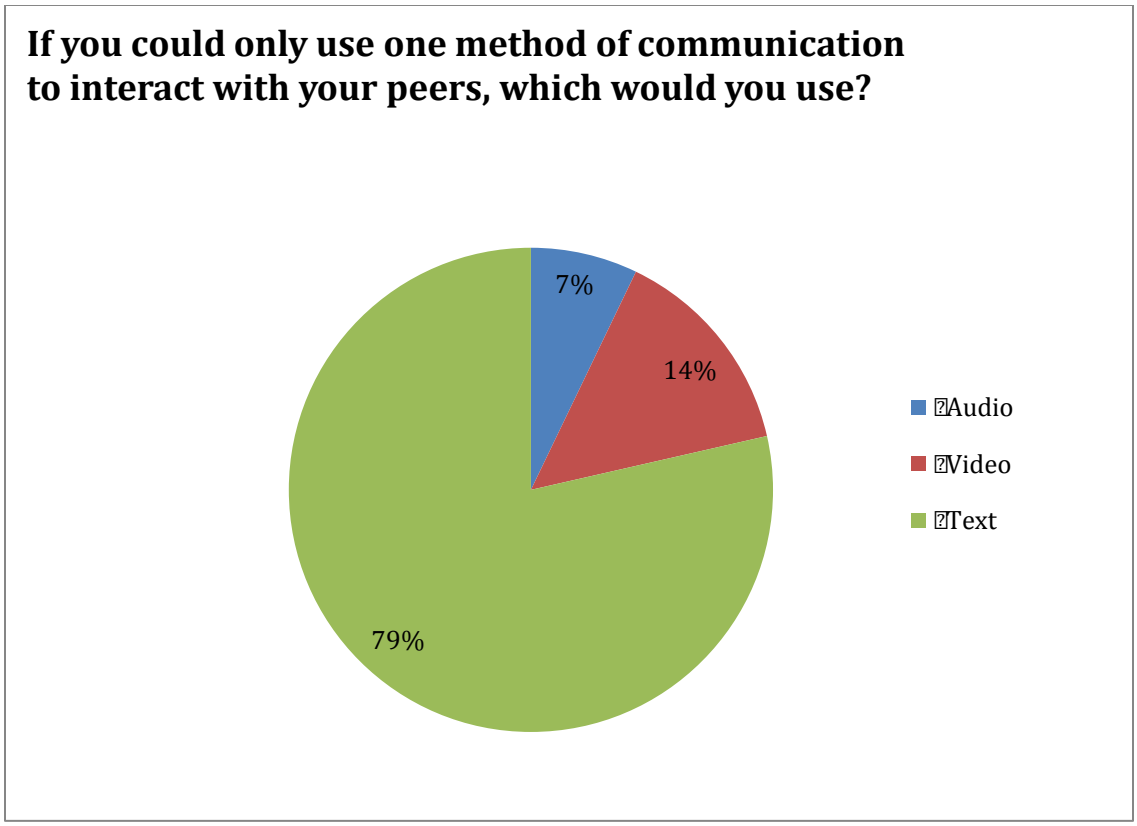


Figure 4. Peer-to-peer communication preference

Time

Time is a valuable commodity to students. Students responded that text saves time due to the efficiency and familiarity of writing, and is easy to refer back to posts for feedback. They also noted audio and video required more time and effort on their part to use. Students were outspoken on this matter, saying “Text is efficient. It saves time. When it’s done, it’s easy for me to refer back to.”, “It takes less time to read a text post than to watch a video or listen to a recording.”, and “It takes less time to read than to watch a video or listen to a recording. I can skim and scan for key information, and I can go back and re-read easily.”

Other students stated audio and video were too inefficient to use when compared to communicating with text, saying “Text is more efficient because I can skim through it.”, “Text is easier for me because I’m better at it.”, and “If I’m making corrections to something, text is simpler to scan through and look back at.” One student summed up the preference for text over audio or video by saying “I choose text because it’s dependable, easy for others to access, and easier to revise during use (without having to start over).”

Students felt that text gave them a chance to organize and express their thoughts, saying “…in text, I can organize my thoughts well and stick to the point.”, “If I could only use one medium it would be text because it gives me a chance to formulate my thoughts.” and “I find that express my thoughts better in writing than on video.”

One student summarized the time and extra work required to create audio and video posts as such: “Even when I used video and audio, I had to take notes first so that I could look off of them when I was recording myself-so in essence, using audio and video really added an extra step, adding to how much time it took to complete the response.”

The instructor cited a preference for text when receiving communications from students, saying” “Skimming takes so much less time than listening to recordings” but stated she would prefer to use audio while providing feedback to students.

Location

Location was a major factor when students considered using audio or video to participate in discussions. Students work on assignments and participate in course discussions just about anywhere and anytime. Location, whether at work or late at night at home, was an important consideration for students delicately balancing their work, school and life responsibilities and not wanting to disturb others around them or preferring to use a desktop/laptop versus the available mobile app.

Technology

Technical problems with the audio and video functions in Canvas acted as a block to the easy and efficient recording of audio and video we anticipated at the onset of this study. Students were open in offering and explaining their technical difficulties, noting: “The video quality usually sucks and I find it distracting.” and “I would (use video) if my computer set up was a little better or I had a particularly difficult question to ask.”

Plug-in issues, browser problems, connections, and general computer capabilities also frustrated efforts to post via audio and video. Often the recording functions didn’t work or recordings mysteriously disappeared or never uploaded. The instructor noted “Often times I started with video, but due to it not uploading, I’d move on to audio.” To the credit of this class, students mentioned making multiple attempts to post via audio and/or video and sticking with it until they were successful. A few determined students who had been frustrated by the LMS recoding functions recorded posts outside the course and imported the files to the discussions, just as they had done prior to using Canvas.

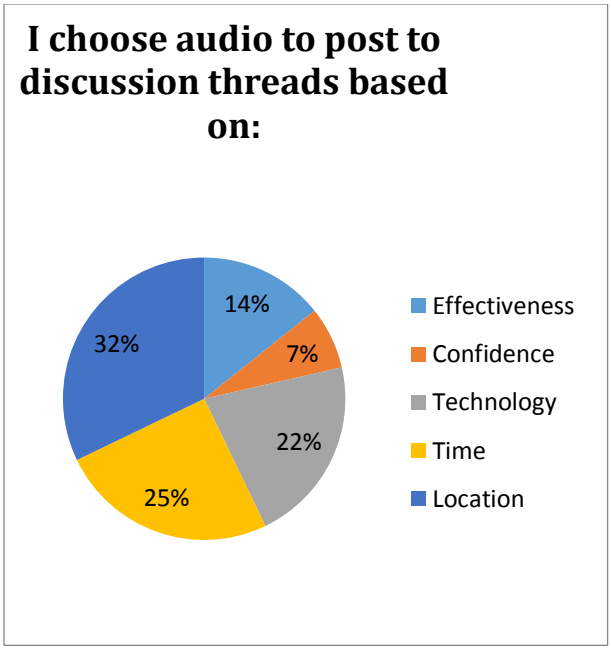


Figure 5. Factors influencing students' choice for audio

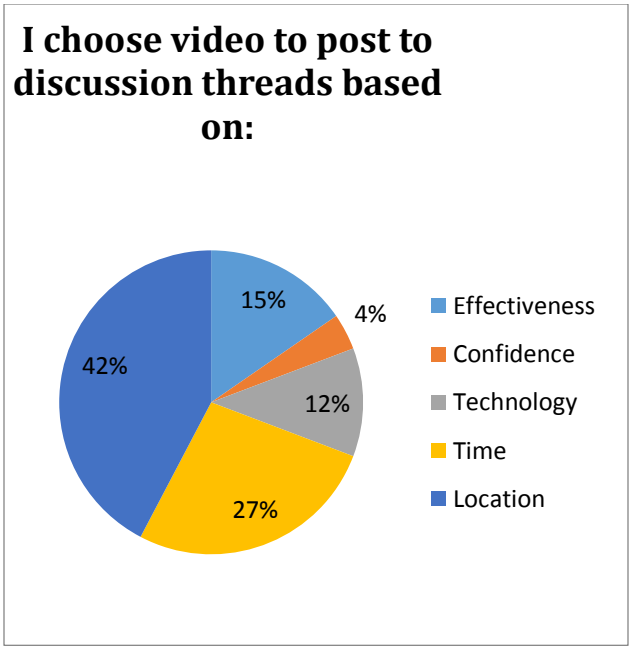


Figure 6. Factors influencing students' choice for video

Self-Image

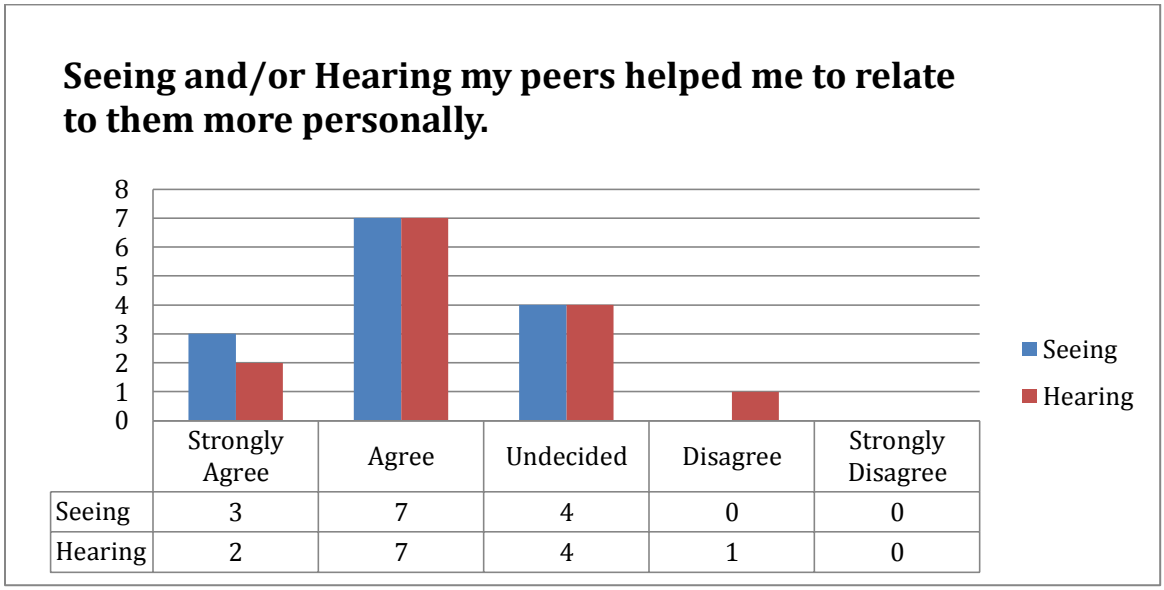
The last theme we discovered is Self-Image. One student expressed their discomfort by saying "Responding via video makes me a little more self-conscious (than audio)." and "I feel uncomfortable using the audio and video mediums. For one, my voice sounds like a 12 year-olds." One said simply "I don't like seeing myself on video!" Attire factored into the discussion as well, with one student noting "I'm often in my pajamas and work late at night." It was remarkable to us how many commented they felt self-conscious in the way they looked or sounded, so much so, they would avoid using audio and video to communicate with their peers unless required by the instructor. We were impressed by how forthcoming some students were in expressing their very personal feelings.

Social Presence

To address the question "Does participating and interacting in course discussions using audio and video enhance feelings of social presence?" we surveyed for feelings and attitudes indicative or key in enhancing social presence. We asked if seeing and/or hearing other students during course discussions helped in relating to them more personally. Of our fourteen survey participants, half agreed seeing and hearing their fellow students helped them in relating more personally to their peers.

Comments indicated video gave students the closest experiences of Face to Face learning environments: "Video seems real. It is as face-to-face as you can get in the virtual environment." They enjoyed being able to see others verbal cues, making the discussions more personable, noting "I like audio because it is a more personal connection…" and "I like being able to see others and I like to see verbal cues. It seems more personal."

Three people strongly agreed seeing their peers helped to create this connection, while only two strongly agreed hearing their peers helped to create this connection. The remainder of participants indicated they were either undecided or that they disagreed seeing and/or hearing their peers helped to relate to them more personally. These findings are interesting given most students said they would prefer to receive communications from their peers via text, but the same students report identifying with or relating to their peers during audio and video interactions.



	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Seeing	3	7	4	0	0
Hearing	2	7	4	1	0

Figure 7. Audio and video influence on personal relationships.

When students were asked to comment whether audio and/or video feedback from the instructor were more personal than text responses, half of the participants agreed with four participants strongly agreeing that audio was more personal and five strongly agreeing video was more personal. While most students would prefer instructor feedback to be provided via text, they almost entirely strongly agreed or agreed that audio and video feedback helped to relate to their instructor more personally. Students commented “If I had to choose (one method to interact with the instructor) I suppose I would say video so that I felt more personally connected to the instructor- that we actually knew who each other were.” “I liked seeing and connecting with the instructor via video. It created a more personal connection…” and “Video seems more immediate and more personal as far as feedback goes.”

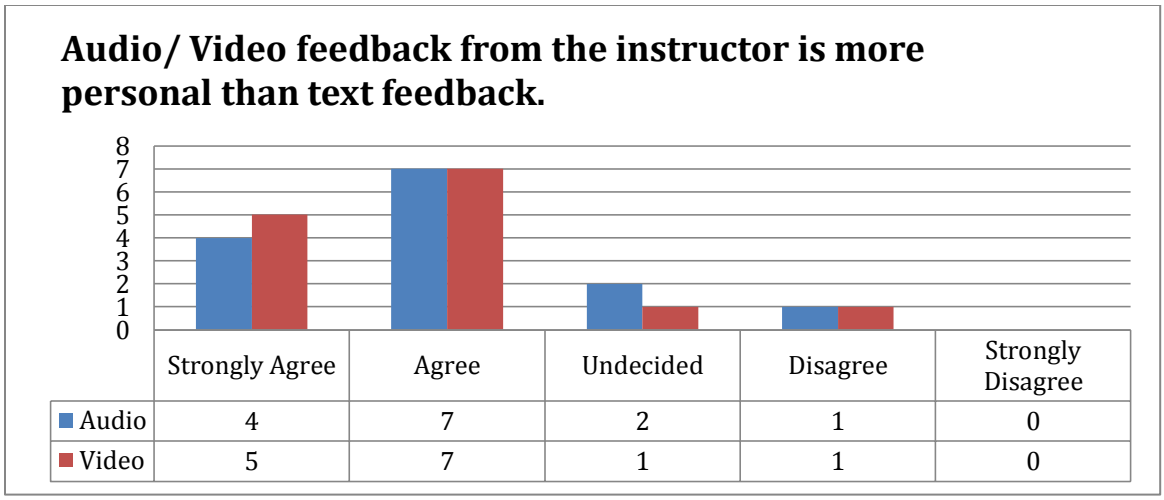


Figure 8. Instructor feedback in audio video format influence on personal relationship.

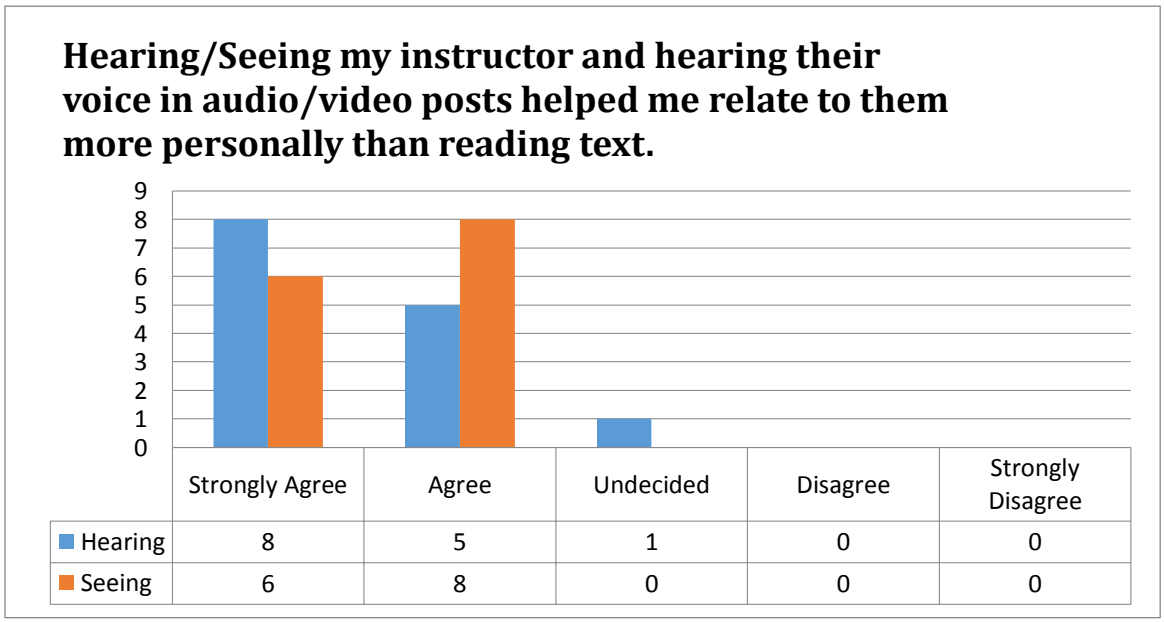
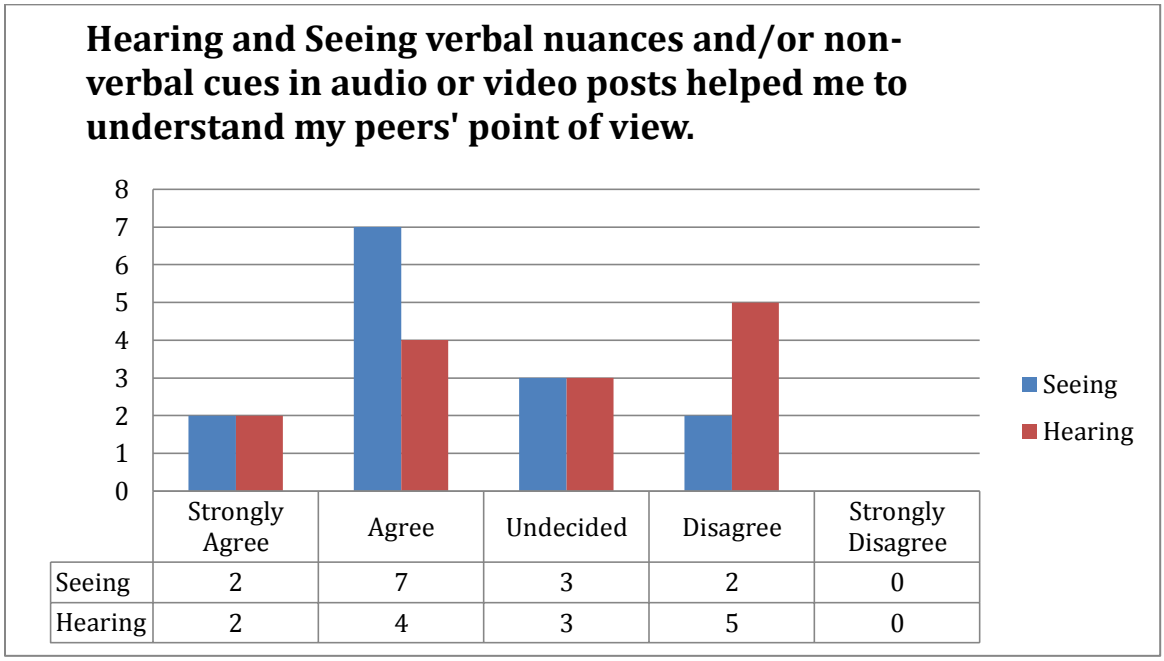


Figure 9. Instructor communication in audio and video influence on personal relationship.

The instructor indicated they were occasionally able to pick up on students' non-verbal cues while listening/watching to audio/video posts and was only rarely able to form distinct impressions of students while listening to and watching to their audio and video posts. Occasionally, the instructor felt listening and watching posts helped to relate to the students more personally.

Cognitive Presence

To determine if there was an enhanced sense of cognitive presence, we asked if students could identify any non-verbal cues while listening or viewing their peers' posts and if these cues helped to better understand their point of view. Two of our twelve participants strongly agreed hearing and seeing non-verbal cues helped in better understanding their peers' point of view during course discussions. Seven agreed seeing their peers' non-verbal cues helped to understand their peers better, while only four participants agreed hearing their peers increased their understanding. Five participants disagreed that hearing their peer's non-verbal cues helped to increase their peers' points of view. Only two participants disagreed that seeing their peers' non-verbal cues helped to better understand their point of view.



	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Seeing	2	7	3	2	0
Hearing	2	4	3	5	0

Figure 10. Enhanced understanding using audio and video.

Students indicated that audio and video communication from the instructor was effective in supporting cognitive presence. Regarding video, students wrote "I think my instructor can understand me better if I use video." and "Video allows me to get a better understanding of the content because the instructor can add emphasis and explanation that is not practical in the written form." Audio feedback was likened to face-to-face instruction by one student, who said "(Audio communication) forced me to take notes…which reinforces the feedback. Much more like communication in a face-to-face class."

The instructor indicated that only rarely or occasionally did hearing or seeing non-verbal cues during the review of audio and video posts cause them to have a better understanding of the responses.

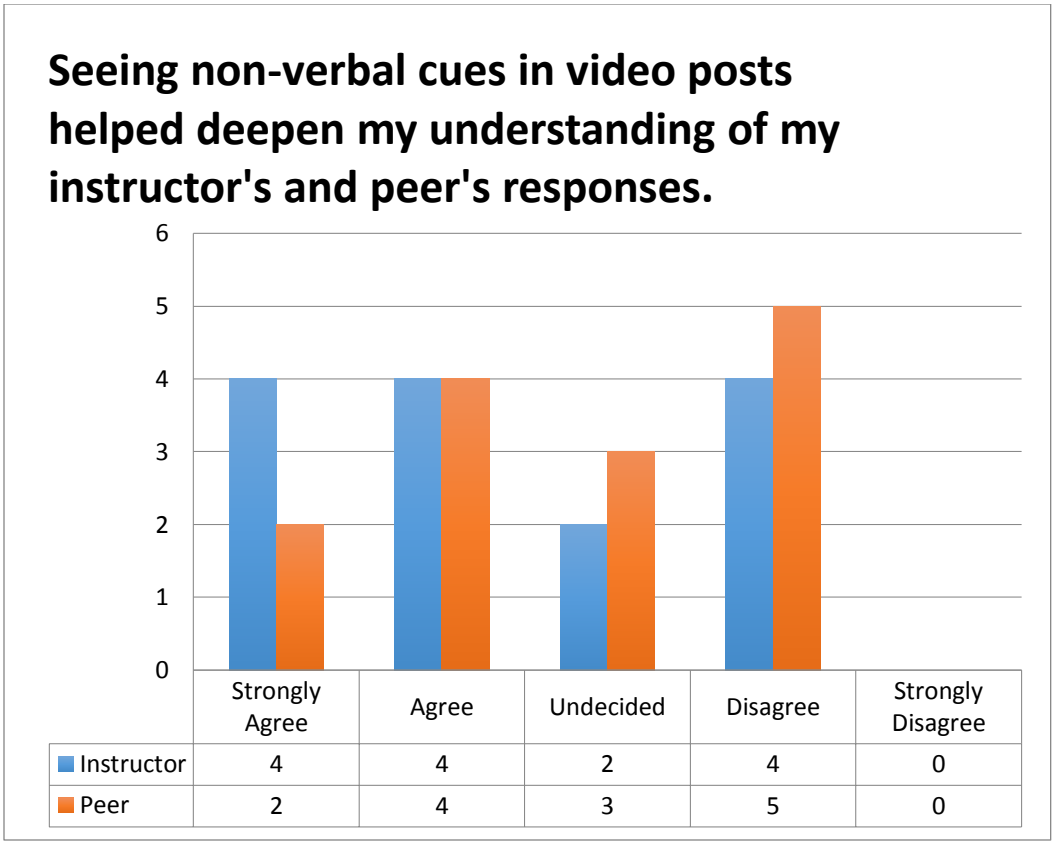


Figure 11. Influence of audio and video cues on cognitive presence.

Comparison of Research to the Literature Review

The findings of our literature review indicated that audio and video, to the extent it has been studied, support feelings of social and cognitive presence in online learning environments. Our research is in agreement with the findings of our literature review.

Our research revealed that audio and video communications from the instructor created feelings of a more personal relationship with her. Research shows that hearing verbal cues and seeing body language simulates face to face instruction, thus making discussions seem more "real". Steven Aragon (2003), citing H. McLellan, noted "Audio helps to create social presence by reflecting the emotions of the instructor to the students. It can also help establish the formality of the environment and the friendliness of the instructor and can encourage participation." (p.62) Ice et al (2007) found in their mixed-methods study of 27 graduate students that audio feedback was associated with the perception that the instructor cared more about the student

Our limited results are inconclusive, but suggest that audio and video support cognitive presence, if only slightly, which is in agreement with the findings of our literature review. We found that visual cues were more effective than verbal cues in helping students understand their peers and instructors' point of view. Although audio is more time-consuming to digest, we found, as did Ice et al. (2007) "…there was reason to believe that even though some students

perceived audio feedback to be more time consuming, they still preferred it because they believed they got more out of it." (n.p.)

Our findings are dissimilar to those of our literature review in that they revealed much about user experiences with *using* audio and video. The themes of time, technology, location, and self-image were either marginally addressed or not addressed in the literature we reviewed. Our research had a strong focus on peer-to-peer communication as well: the bulk of the literature we reviewed was focused on instructor/student communication.

Discussion

Our research indicates that while audio and video communications in one online asynchronous online course support social presence among the majority of students, video was more effective in this regard than audio. We found an overwhelming preference for text communication, largely due to time and efficiency concerns, students' location when interacting in the course, technical difficulties and self-image concerns. Although students indicated a strong preference for text communications with the instructor, 36 percent would choose video if given the choice of one format only. Feelings of social presence increased when communications were in first video, and secondly audio format.

The instructors' feelings of social presence were affected only marginally by audio and video communication. The themes of time and efficiency, technical concerns, and location impacted their use of the media as well, leading to their overall preference for text communication. Audio was noted as preferable for providing detailed feedback and "When I want to make sure my point gets across. A lot can get lost in translation."

Time is a major issue when considering the use of audio and video communication. When we began this action research project, we (wrongly) assumed that because the features in Canvas that support audio and video make using these media more efficient, they would be used more often. We discovered that creating audio and video posts, regardless of the LMS affordances, frequently requires the extra steps of writing down notes for the post, taking notes on the posts, feedback and instructions viewed and heard, requires time to edit to ensure an effective post. Text is perceived as efficient, dependable, and easy to use.

Students often choose online instruction over face-to-face course in part as a consideration of time. The course surveyed for this report is an online graduate-level course in a metropolitan area. Students in the course may be considered to have jobs, families, and other commitments that impact their time, and so may be more inclined to look for time-efficient instruction than students in other learning situations. The emphasis on time may not be as influential for learners who are more engaged in their educational setting or have more time to devote to their studies.

Location proved to be just as influential when choosing which medium to communicate with. Just as asynchronous environments allow learning to take place anywhere, anytime, it also requires strategic planning as to when and where students will participate in course discussions. It seems the requirement of additional technical requirements such as a camera or microphone existing wherever the student is at the time of class participation trumps the need or desire for social presence. In our opinion that this will continue to affect whether students choose audio or video in their online course communications, as this freedom is a major consideration for most asynchronous learners.

To our surprise, when choosing to communicate via audio, video or text, technology continues to provide a sufficient hiccup in the communication process. Until students and

technology can catch up to one another, students will continue to rely on the easiest and most trusted medium to communicate.

Limitations

We encountered a few limitations during the course of our study. First and most importantly, we lacked the luxury of time. The data we collected concentrated on just two weeks of the 16-week course. It would have been beneficial to have collected data on the methods and preference of communication throughout an entire semester; this would not only have provided more robust quantitative data, but created a greater amount of time for the students and instructor to realize their full feelings about media and perhaps even the benefits of increased social presence. Initially, we had lofty thoughts of interviewing not only the instructor of this class, but also other instructors of asynchronous classes using Canvas to capture more than one instructor's impressions of audio and video communications, but we ran out of time. Another limitation encountered was one of experience. We felt had we been more fluent in writing surveys, we may have collected more complete and to-the-point data; better questions equals better answers. Also, the class was composed of 17 students, yet only 14 responded to the survey. We feel receiving survey results from the entire class would have represented the class more wholly.

Technical problems with the audio and video features of Canvas ultimately proved to inhibit student and instructor use of these media. We were not previously aware of technical problems with Canvas, and so, like many other advocates of new-and-improved technology before us, we mistakenly thought the audio and video functions would be joyously embraced by students and the instructor. On the contrary, in addition to the items identified in the Communications Preference category, the audio and video features often frustrated users.

Despite these limitations and difficulties, this study is valuable because it reveals issues that impact student and instructor use of audio and video. The literature we reviewed did not address time, efficiency, location, or self-image in relation to audio and video use. Courses designed in acknowledgement of these issues will hopefully make better use of the media to support social presence, teaching and learning.

Implications for Practice

We feel we have only scratched the surface of the issue of using audio and video to support social and cognitive presence in asynchronous online learning, and recommend continuing the research in future classes using the model we have provided to build data. By extending this research model to include varied online courses, instructors and students, additional data can be collected to better assess how social and cognitive presence can be created and nurtured through the use of audio and video to improve learning experiences in asynchronous learning environments.

We suggest that instructors using audio and video as a means of communication poll students one-third of the way into the course to assess students' preference for instructor feedback as well as their own use of audio and video to communicate with peers. By doing so, instructors may be able to adapt their communications and communication requirements to better enhance teaching and learning. We also recommend extending polling throughout the semester to establish initial and extended preferences for peer to peer and student-instructor communications. Instructors should consider providing written feedback to accompany audio and video feedback, to make it easier and more efficient for students to refer to comments.

To address the self-image issue, we recommend instructors take steps to ease self-consciousness and help students feel more relaxed and willing to record audio and video posts. Instructors may wish to incorporate humor in audio and video ice-breaker activities.

Finally, we recommend that all necessary steps be taken quickly to fix the technical problems with the audio and video features of Canvas. By eliminating this roadblock, students may be more eager to use audio and video.

Conclusion

It is our observation that at times, asynchronous students and professors alike enjoy the anonymity that is inherent to the asynchronous learning environment. And while students are more than happy to spend hours using their experience and intellect to participate in ongoing discussion threads, they do not necessarily want to be literally seen or heard. We observed that even though there was a remarked sense of increased connectivity and personal link established while using audio and video to communicate with other students and the instructor, the use of audio and video is at times impacted by time, location, technology, and users' self-image.

Cognitive presence establishes meaning through sustained communication. We remain undecided if we can determine from this study that using audio and video as a means of communication supports students' in constructing meaning. We can, however, remark that video appeared to establish a greater sense of understanding than audio and in combination with student preference, feel confident recommending that instructors consider integrating video into their online courses.

To use audio and video to increase social and cognitive presence, course designers will have to overcome the issues of time, location, technology, and self-image, use the media sparingly due to the time required to create posts, or use the media in situations other than posting to discussions, delivering instructions, and providing feedback. In the instance of audio and video communication from the instructor, it may be advisable to provide accompanying notes in text format.

This is not to say audio and video do not bring value to online learning environments; it is simply acknowledging that in our endeavor to improve asynchronous learning environments, students sense of convenience, ease of use, reliability and the need to be seen and heard will need to collide with technology available to all students before the use of audio and video as means of communication in asynchronous learning environment will be viewed as common.

References

Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001, September). Assessing teaching presence in a computer conferenceing context. *Journal of Asynchronous Learning Networks*.

Aragon, S. R. (2003). Creating social presence in online environments. *New Directions for Adult & Continuing Education*, pp. 100, 57-68.

Borup, J., & Graham, C. (2011). Improving online social presence through asynchronous video. *The Internet and Higher Education*.

Borup, J., West, R. E., & Graham, C. R. (2012). Improving online social presence through asynchronous video. *The Intenet and Higher Education, 15*(3), 195-203.

Brown, M., & Kiriakidis, P. (2007). Student Empowerment in an Online Program. *College Teaching Methods & Styles Journal, 3*(4), 47-54.

Cui, G., Lockee, B., & Meng, C. (2012, March). Builing modern online social presence: A review of social presence theory and its instructional design implications for future trends. *Education and Information Technologies*.

Garrison, D. R., & Anderson, T. (2003). *E-learning in the 21st century: A framework for research and practice.* London: Routledge/Falmer.

Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical Inquiry in a Text-Based Environment: Computer Conferenceing in Higher Education. *The Internet and Higher Education, 2*(2-3), 87-105.

Hardham, G., Richardson, B., Ross, J., & Ryman, S. (2010). Creating and sustaining online learning communities: designing for transformative learning. *International Journal of Pedagogies & Learning, 5*(3), 32+.

Ice, P., Curtis, R., Phillips, P., & Wells, J. (2007). Using asynchronous audio feedback to enhance teaching presence and students' sense of community. *Journal of Asynchronous Learning Networks*, 1-23.

Kerhwald, B. (2008). Understanding social presence in text-based online learning environments. *Distance Education*, 89-106.

King, K. E. (2009). Comparison of social presence in voice-based and text-based asynchronous computer conferences. *In system Sciences*, 1-10.

New York Times. (2013, February 19). The trouble with online college. *New York Times*, p. A22.

Richardson, J. C., & Swan, K. (2003). Examining social presence in online courses in relation to students' perceived learning and satisfaction. *Journal of Asynchronous Learning Networks*, 68-88.

Scollins, M. B. (2008). Cultivating social presence in the online learning classroom: a literature review with recomendations for practice. *Journal of Instructional Technology and Distance Leaarning, 5*(3).

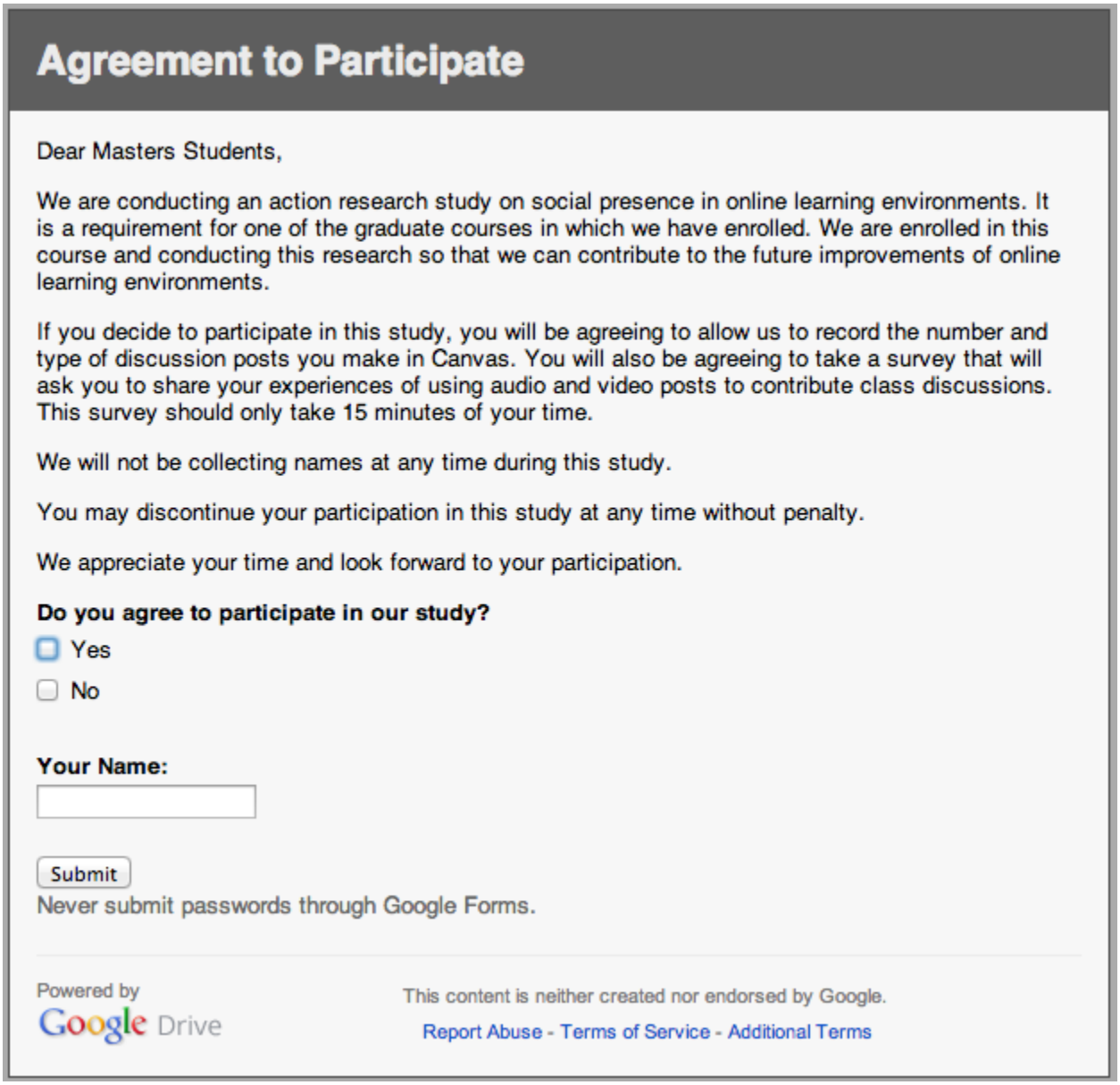
Stringer, E. T. (2007). *Action Research.* Thousand Oaks: Sage Publications.

Swan, L., & Shih, K. (2005). On the nature and development of social presence in online course discussion. *Journal of Asynchronous Learning Networks, 9*(3), 115+.

Wei, C. W., Chen, N.-S., & Kinshuk. (2012). A model for social presence in online classrooms. *Educational Technology Research & Development*, 529-545.

Appendices

Appendix A: Consent Form



Agreement to Participate

Dear Masters Students,

We are conducting an action research study on social presence in online learning environments. It is a requirement for one of the graduate courses in which we have enrolled. We are enrolled in this course and conducting this research so that we can contribute to the future improvements of online learning environments.

If you decide to participate in this study, you will be agreeing to allow us to record the number and type of discussion posts you make in Canvas. You will also be agreeing to take a survey that will ask you to share your experiences of using audio and video posts to contribute class discussions. This survey should only take 15 minutes of your time.

We will not be collecting names at any time during this study.

You may discontinue your participation in this study at any time without penalty.

We appreciate your time and look forward to your participation.

Do you agree to participate in our study?

- [ ] Yes
- [ ] No

Your Name:

Submit

Never submit passwords through Google Forms.

Powered by Google Drive

This content is neither created nor endorsed by Google.

Report Abuse - Terms of Service - Additional Terms

Appendix B: Student Survey

Edit this form

Communications Survey

This survey should take no longer than 15 minutes of your time.

Please take a moment to reflect upon your experiences while using different communication methods to interact with your peers and instructor throughout this course.

* Required

Part 1

During the first part of this survey, consider your experiences while communicating with your peers throughout this course.

I feel comfortable participating in course discussions using audio. *

- ○ Always
- ○ Usually
- ○ About half of the time
- ○ Seldom
- ○ Never

I feel comfortable participating in course discussions using video. *

- ○ Always
- ○ Usually
- ○ About half of the time
- ○ Seldom
- ○ Never

I feel comfortable participating in course discussions using text. *

- ○ Always
- ○ Usually
- ○ About half of the time
- ○ Seldom
- ○ Never

Hearing my peers' voices in audio posts helped me relate to them more personally than reading text. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree

Seeing my peers and hearing their voices in video posts helped me relate to them more personally than reading text. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree

I was able to pick up on non-verbal cues when watching my peers' video responses. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree

Seeing non-verbal cues in video posts helped deepen my understanding of my peers' responses. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree

Hearing verbal nuances in audio posts helped me understand my peers' point of view. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree

I feel most connected to my peers when receiving feedback via: *

Choose all that apply.

- ☐ Audio
- ☐ Video
- ☐ Text

I choose audio to post to discussion threads based on: *

Choose all that apply.

- ☐ Its effectiveness to communicate with my peers/instructor
- ☐ My confidence in using this medium to effectively communicate with my peers/instructor
- ☐ Technology related issues, ie Browser, plug-in, computer or connection problems

- [ ] Time- when I have the time to do it
- [ ] Location: for example, when I will not disturb others around me
- [ ] Location: when I am at home as opposed to at my work location
- [ ] Location: when I can use my desktop instead of the mobile ap
- [ ] Other:

I choose video to post to discussion threads based on: *
Choose all that apply.

- [ ] Its effectiveness to communicate with my peers/instructor
- [ ] My confidence in using this medium to effectively communicate with my peers/instructor
- [ ] Technology related issues, ie Browser, plug-in, computer or connection problems
- [ ] Time- when I have the time to do it
- [ ] Location: for example, when I will not disturb others around me
- [ ] Location: when I am at home as opposed to at my work location
- [ ] Location: when I can use my desktop instead of the mobile app
- [ ] Other:

If you could only use one method of communication to interact with your peers, which would you use? *

- ○ Audio
- ○ Video
- ○ Text

Please tell us why you chose the above mentioned medium for communicating with your peers: *

Part 2

During the second part of this survey, consider your experiences while communicating with your instructor throughout this course.

Audio feedback from the instructor is more personal than text feedback. *

- ○ Strongly Agree
- ○ Agree

- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree

Video feedback from the instructor is more personal than text feedback. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree

Hearing my instructors voice in audio posts helped me relate to him/her more personally than reading text. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree

Seeing my instructor and hearing his/her voice in video posts helped me relate to him/her more personally than reading text. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree

Audio responses helped me form distinct impressions of my instructor. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree
- ○ Not Applicable

Video responses helped me form distinct impressions of my instructor. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree
- ○ Not Applicable

I was able to pick up on non-verbal cues when watching my instructor's video responses. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree
- ○ Not Applicable

Seeing non-verbal cues in video posts helped deepen my understanding of my instructor's responses. *

- ○ Strongly Agree
- ○ Agree
- ○ Undecided
- ○ Disagree
- ○ Strongly Disagree
- ○ Not Applicable

If you could only use one method of communication to interact with your instructor, which would you use? *

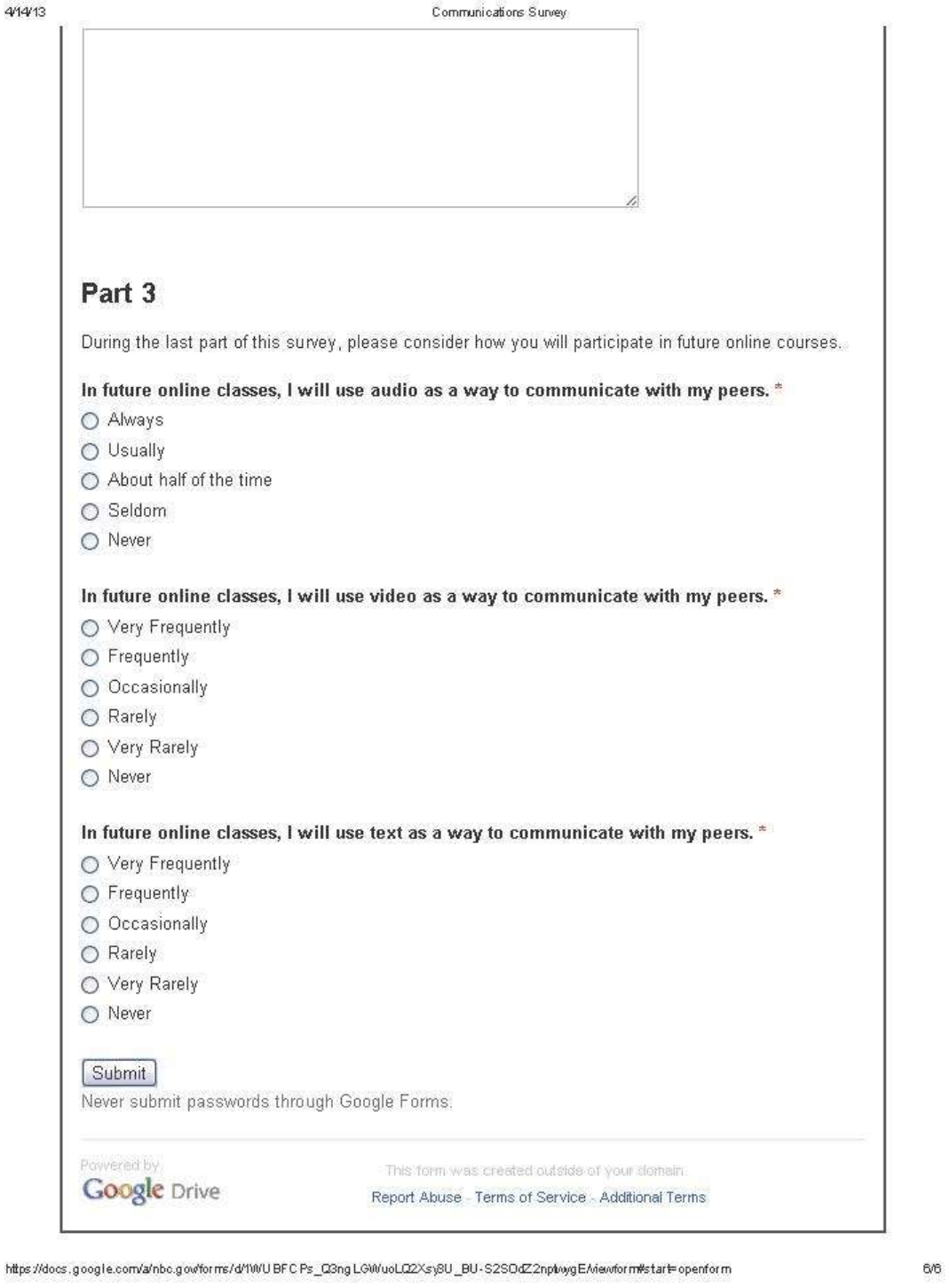
- ○ Audio
- ○ Video
- ○ Text

Please tell us why you chose the above mentioned medium to communicate with your instructor: *

If you could only receive feedback from your instructor using one medium, which would you prefer? *

- ○ Audio
- ○ Video
- ○ Text

Please tell us why you chose the above mentioned medium to communicate with your instructor: *



4/14/13 Communications Survey

Part 3

During the last part of this survey, please consider how you will participate in future online courses.

In future online classes, I will use audio as a way to communicate with my peers. *

- Always
- Usually
- About half of the time
- Seldom
- Never

In future online classes, I will use video as a way to communicate with my peers. *

- Very Frequently
- Frequently
- Occasionally
- Rarely
- Very Rarely
- Never

In future online classes, I will use text as a way to communicate with my peers. *

- Very Frequently
- Frequently
- Occasionally
- Rarely
- Very Rarely
- Never

Submit

Never submit passwords through Google Forms.

Powered by Google Drive

This form was created outside of your domain.

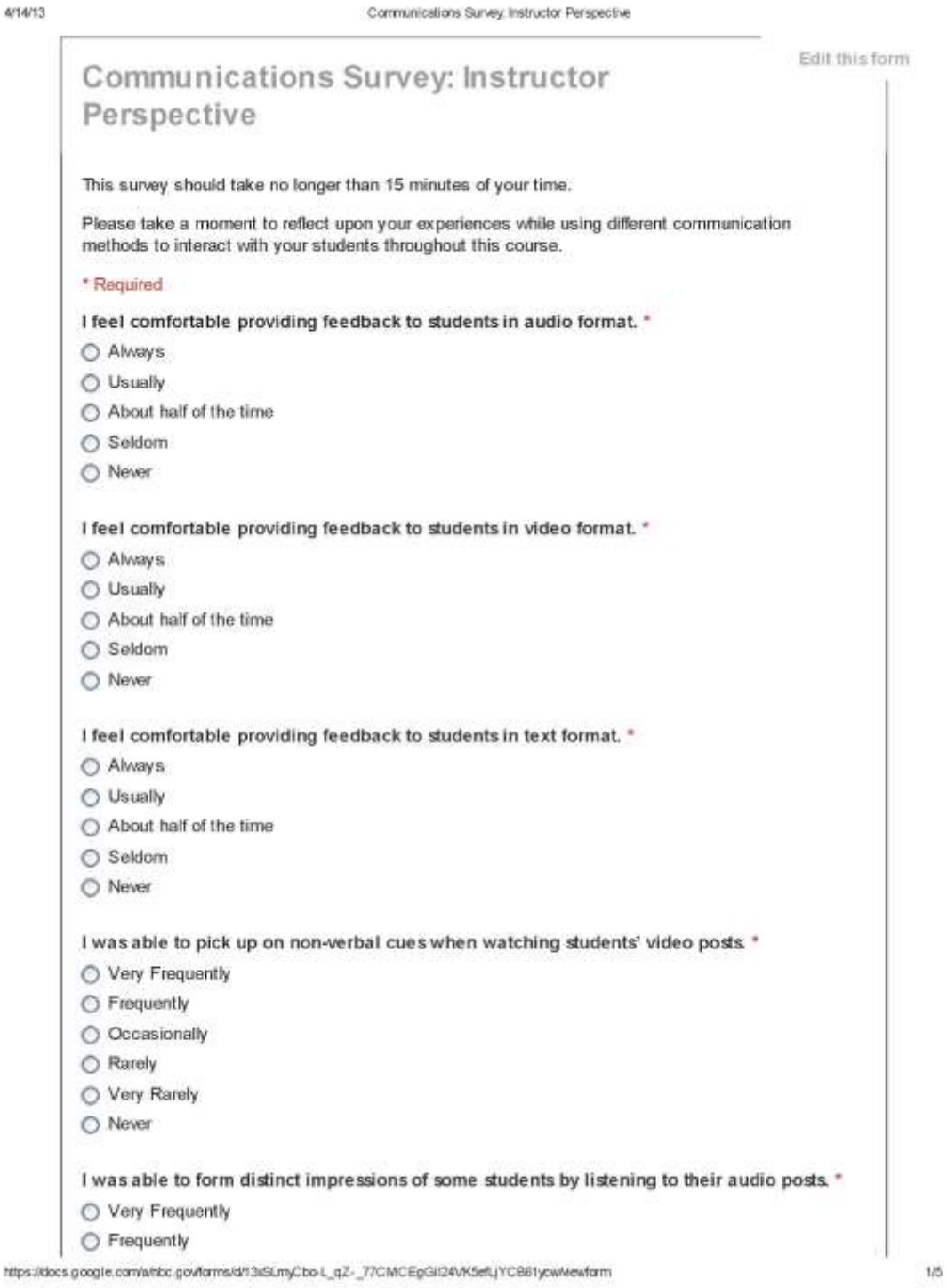
Report Abuse - Terms of Service - Additional Terms

https://docs.google.com/a/nbc.gov/forms/d/1WUBFCPs_Q3ngLGWuoLQ2XsyBU_BU-S2SOdZ2npbwgEA/viewform#start=openform 6/6

Link to Student Results:

https://docs.google.com/spreadsheet/ccc?key=0AsVrFcvvryntdE5zaHFnWDRlQXc2eDY3b2dXX2JHOEE&usp=sharing

Appendix C: Instructor Survey



4/14/13 Communications Survey: Instructor Perspective

Edit this form

Communications Survey: Instructor Perspective

This survey should take no longer than 15 minutes of your time.

Please take a moment to reflect upon your experiences while using different communication methods to interact with your students throughout this course.

* Required

I feel comfortable providing feedback to students in audio format. *

- ○ Always
- ○ Usually
- ○ About half of the time
- ○ Seldom
- ○ Never

I feel comfortable providing feedback to students in video format. *

- ○ Always
- ○ Usually
- ○ About half of the time
- ○ Seldom
- ○ Never

I feel comfortable providing feedback to students in text format. *

- ○ Always
- ○ Usually
- ○ About half of the time
- ○ Seldom
- ○ Never

I was able to pick up on non-verbal cues when watching students' video posts. *

- ○ Very Frequently
- ○ Frequently
- ○ Occasionally
- ○ Rarely
- ○ Very Rarely
- ○ Never

I was able to form distinct impressions of some students by listening to their audio posts. *

- ○ Very Frequently
- ○ Frequently

https://docs.google.com/a/nbc.gov/forms/d/13xSLmyCbo-L_qZ-_77CMCEgGil24VK5efLjYCB81ycw/viewform 1/5

- ○ Occasionally
- ○ Rarely
- ○ Very Rarely
- ○ Never

Hearing verbal nuances in students' audio posts deepened my understanding of their responses. *

- ○ Very Frequently
- ○ Frequently
- ○ Occasionally
- ○ Rarely
- ○ Very Rarely
- ○ Never

I was able to form distinct impressions of some students by watching and listening to their video posts. *

- ○ Very Frequently
- ○ Frequently
- ○ Occasionally
- ○ Rarely
- ○ Very Rarely
- ○ Never

Seeing non-verbal cues in students' video posts deepened my understanding of their responses. *

- ○ Very Frequently
- ○ Frequently
- ○ Occasionally
- ○ Rarely
- ○ Very Rarely
- ○ Never

Hearing student's voices in audio posts to discussion threads helped me relate to them more personally than reading text posts. *

- ○ Very Frequently
- ○ Frequently
- ○ Occasionally
- ○ Rarely
- ○ Very Rarely
- ○ Never

Seeing students and hearing their voices in video posts to discussion threads helped me relate to them more personally than audio posts. *

- ○ Very Frequently
- ○ Frequently
- ○ Occasionally
- ○ Rarely
- ○ Very Rarely
- ○ Never

I choose audio to communicate with students based on: *

Choose all that apply.

- ☐ My ability to use the medium to communicate effectively.
- ☐ Time: when I have time to record an audio post.
- ☐ Location: for example, when I will not disturb others around me, when I am at home as opposed to in another location, or when I can use my desktop instead of the mobile app
- ☐ Other:

I choose video to communicate with students based on: *

Choose all that apply.

- ☐ My ability to use the medium to communicate effectively.
- ☐ Time: when I have time to record an audio post.
- ☐ Location: for example, when I will not disturb others around me, when I am at home as opposed to in another location, or when I can use my desktop instead of the mobile app
- ☐ Other:

If you could only provide feedback to students using one medium, which would you prefer? *

- ○ Audio
- ○ Video
- ○ Text

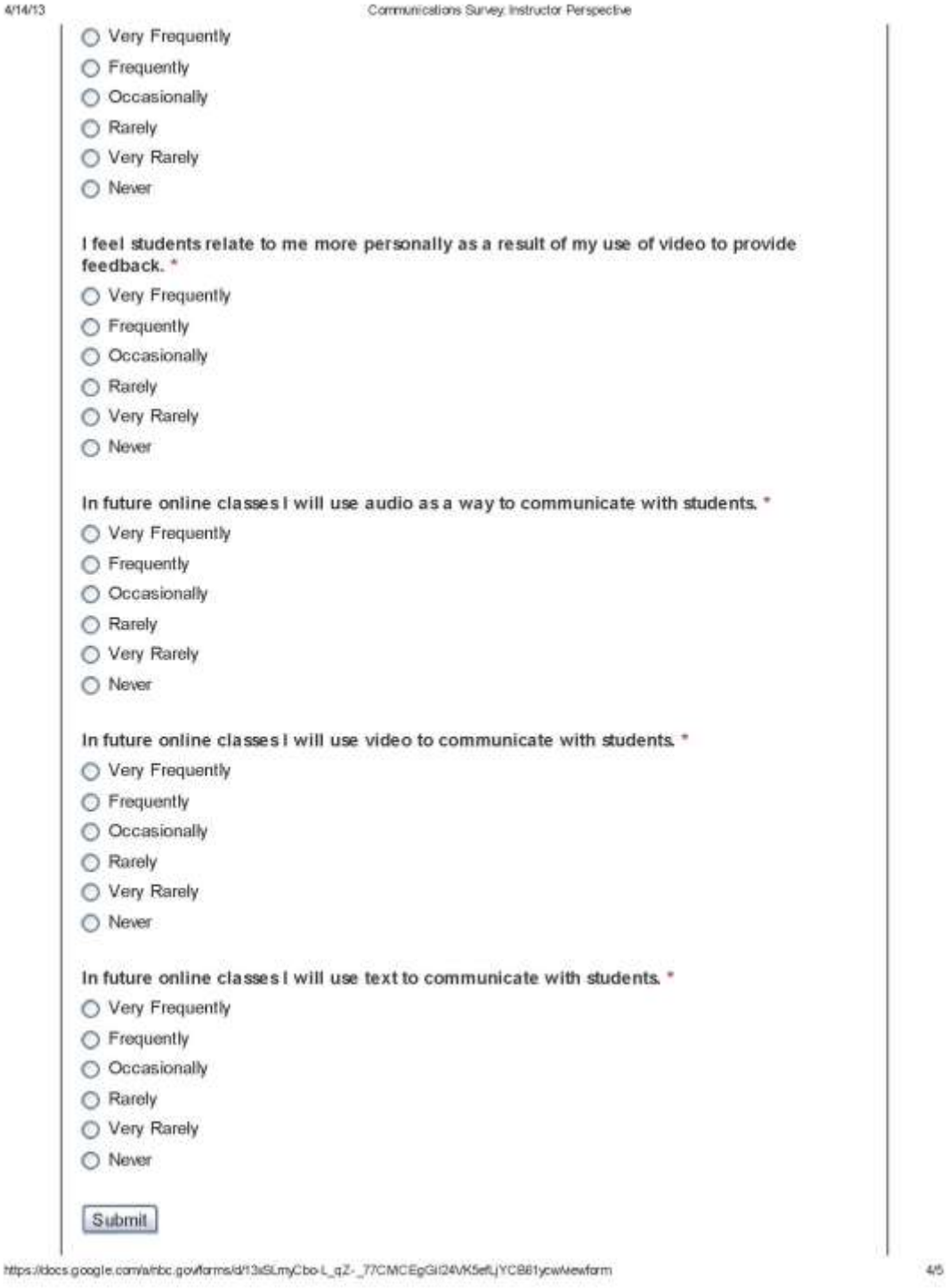
Why?

If students could communicate with you using only one medium, which would you prefer? *

- ○ Audio
- ○ Video
- ○ Text

Why?

I feel students relate to me more personally as a result of my use of audio to provide feedback. *



4/14/13 Communications Survey: Instructor Perspective

- Very Frequently
- Frequently
- Occasionally
- Rarely
- Very Rarely
- Never

I feel students relate to me more personally as a result of my use of video to provide feedback. *

- Very Frequently
- Frequently
- Occasionally
- Rarely
- Very Rarely
- Never

In future online classes I will use audio as a way to communicate with students. *

- Very Frequently
- Frequently
- Occasionally
- Rarely
- Very Rarely
- Never

In future online classes I will use video to communicate with students. *

- Very Frequently
- Frequently
- Occasionally
- Rarely
- Very Rarely
- Never

In future online classes I will use text to communicate with students. *

- Very Frequently
- Frequently
- Occasionally
- Rarely
- Very Rarely
- Never

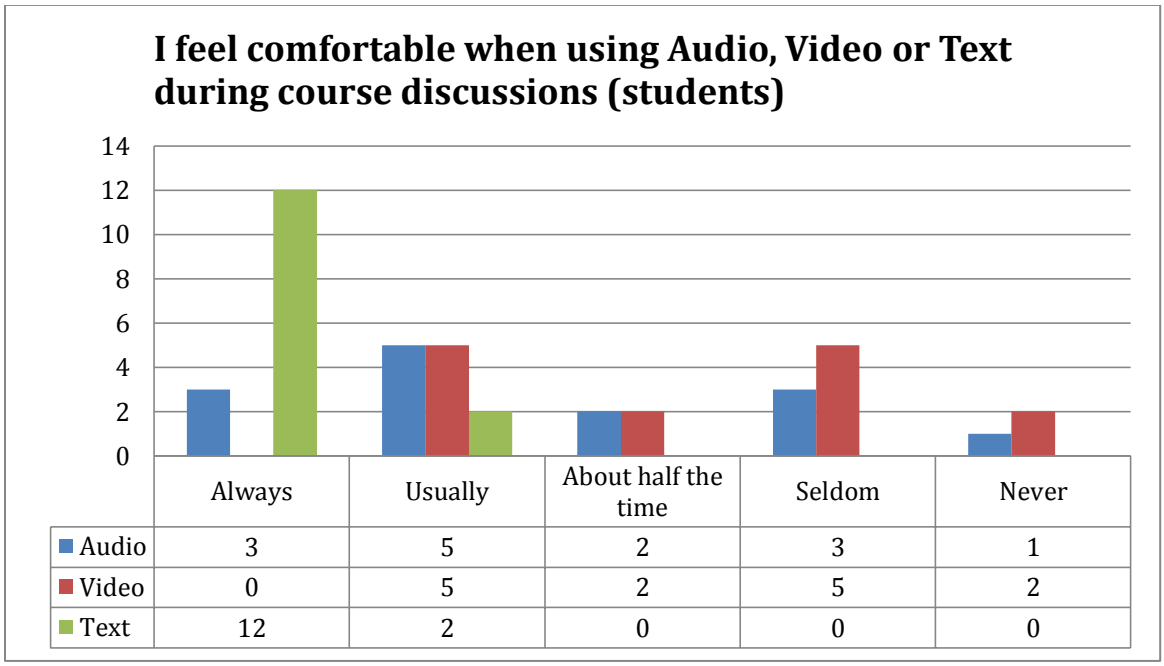
Submit

https://docs.google.com/a/nbc.gov/forms/d/13xSLmyCbo-L_qZ-_77CMCEgGI24VK5efLjYCB81ycwM/viewform 4/5

Link to Instructor Results:

https://docs.google.com/spreadsheet/ccc?key=0AsVrFcvvryntdGVmRm9CQkI2NHRscmV3dWdYazJnX2c&usp=sharing

Appendix D



Appendix E