

EXPLORING THE RELATIONSHIP BETWEEN INSTRUCTOR CREATED ONLINE VIDEO CHARACTERISTICS AND PEDAGOGY

T. Malhotra¹, A. Mann², T. Avery², C. Brett²

¹York University (CANADA)

²OISE, University of Toronto (CANADA)

Abstract

Literature suggests that online course videos with instructor's faces highly engage students [1]. Such videos are used to welcome students, provide orientation, explain course content, provide feedback, and summarize discussions [2], [3], [4], [5], [6], [7]. They also offer aspects of teacher presence (social, cognitive, and teaching aspects) that help students engage meaningfully in online courses [8], [9]. Instructor-led facilitation, using instructor-created videos can lead to greater satisfaction and an enhanced learning experience [10], [11], [12], [13]. Studies of faculty videos usually examine how teaching presence can be humanized [14] including tone, expressive language, and other engaging aspects [15]. Faculty value these aspects of teaching presence, actively seeking creative ways to extend online discussion beyond simple text and superficial exchanges [9]. However, few studies have looked at the technical aspects of video length, camera angle, lighting, setting, etc. that contribute to the humanization of these videos [16]. Using a socio-constructive perspective, this study analyzes 64 videos from four instructors in eight graduate-level online courses at a large public Canadian university. A matrix was created to code these videos by purpose (weekly summaries, course introductions, online lectures and how-to videos), content and tone (sequence, audience, emotion) and format (camerawork, picture-in-picture mode, screen activity, length, and setting) [17]. Instructor interviews clarified how these characteristics aligned to faculty-expressed pedagogy. Findings show promise for continued research: all faculty agreed that adding instructor videos can help students engage with content and feel less "disembodied". Videos help the faculty connect to students, further increasing teacher presence. While video length depends on the purpose of the video, most instructors agreed that shorter videos maintain student attention span and subsequent engagement: instructors kept videos to less than 15 minutes. This study is the first stage of an ongoing investigation to frame an ontological system for use by other faculty and researchers to look more deeply at characteristics of instructor videos: ideally instructor videos can be optimized to better enhance student engagement.

Keywords: Instructor-created videos, teacher presence, online learning, humanization.

1 INTRODUCTION

Literature supports the importance of early-on student engagement in online courses to enhance their motivation and retention [2], [3], [4], [5], [6], [7]. Studies claim that videos, including instructor-created videos, can highly engage students in online courses [14], [18].

Instructors often use instructor-generated online videos to welcome students, to provide important course information, to elaborate on difficult concepts, and to offer constructive feedback [19], [4], [20]. Instructors offer these initiatives in online courses to engage their students and to reduce the transactional distance between instructors. Videos used in these ways can enhance teacher presence and increase student engagement and learning [14], [13], [5], [12], [15].

Some studies offer suggestions on an appropriate video length, others discuss the humanizing effects including background setting, tone, and voice modulation of instructors in these videos [15]. However, to the best of our knowledge, there is no existing framework that considers these factors together in order to evaluate instructor videos and align them with author's purpose and content. Few studies offer any suggestions for effective student engagement through the use of instructor-created videos in online courses. It would be interesting to know what aspects of videos would indeed help engage student learning.

Thus, the purpose of this study is to develop and design a framework to examine instructor-created videos in terms of purpose (introduction, instruction of content, and feedback), humanization (tone, background, voice modulation, positivity), and format (technical aspect like length, angle, light, and

quality) in order to support pedagogical self-reflection. Such a framework will help instructors reflect on and improve their self-created videos, ideally leading to increased student engagement and learning.

2 LITERATURE REVIEW

Students wish for an instructor who is readily available and offers meaningful comments and interaction via several modes including videos [21], [22]. Videos in online courses add to the social presence and thus can be predictors of student satisfaction [21], [23], [24], [25], [26], [20]. Instructor videos have been shown to improve overall course quality, increase student engagement and satisfaction [27], [11], significantly reduce course dropout rates [28] and offer students with increased control over their own learning [29].

While instructors generally accept the educational importance of discourse for better student engagement [30], [3], [4], [31], it is a continual challenge to promote a sustained, educationally productive discourse online [32], [33], [34], [35], [21], [36], [37], [38]. Research suggests that the presence of an instructor and the practice of facilitating a sense of trust early in an online dialogue may encourage increased student engagement with the instructor, with their peers, and with the content [39], [40], [41].

Moreover, studies suggest that instructor-created videos are an effective way to initiate this trust, to create teacher presence and to reduce social distance in online courses. Several aspects of instructor-created videos like trustworthiness (non-verbal communication, production quality), personalization (artifacts, tone, etc.), feedback, cognitive load, and interactivity are studied to enhance teacher presence and student engagement in online courses [14], [16]. Videos that include the instructor's face are said to enhance student engagement even further [1]. Other studies indicate that the instructor's face is not what improves learning, but the change in modes, like picture in picture (PIP) that are helpful for increasing student motivation to interact with the content and enhance learning [42], [25], [26], [43]. The instructional videos in this case are typically full frame with an inset window in the screen's corner showing the instructor's face. MOOC instructor-created videos increasingly use talking heads with a PIP mode [42], allowing for multi-window use [44].

Other studies show that video production decisions (like length of videos, speed of instructor talking, type of slides, personal touches or artifacts) influence student engagement on edX MOOC platforms [18]. Although, several studies highlight different aspects of instructor-created videos and their benefits in student engagement and learning, there is no study that looks at all the aspects of instructor created videos together: purpose of video, video production, and humanization. In this instance, humanization refers to the practice of designing an online learning space that ensures a quality of interaction despite the loss of personal contact [15].

3 THEORY & METHODOLOGY

This study follows a socio-constructivist view and looks at learning as a participatory, dialogic process where meaning is constructed through interaction and dialogue [45], [46]. This Vygotskian (1930) conception of learning has influenced several current frameworks for understanding teaching and learning in online contexts. Based on this socio-constructive framework, in the world of online teaching, the Community of Inquiry model (COI) emphasizes three aspects of teacher presence: social, cognitive and teaching [8], [47], [6], [13], [10]. Studies have focused too on the overlap of these three elements and on their relationship with student satisfaction and perceived learning [48]. This study is particularly concerned with the social aspect of teaching presence.

Social presence is defined as the degree to which individuals represent themselves [12], [41] and how they perceive others in mediated environments [49]. Social presence was initially used by information and technology scholars as a way to define the quality of particular communication mediums [50]. However, recent understandings of social presence are more focused on the development of learning communities and are said to make online interactions more appealing, engaging, and rewarding to learners [12].

Methodologically, the study takes a qualitative approach. It draws its data from instructor-created online videos, and instructor interviews. Four instructors contributed to a series of 64 instructor-created videos used in their online courses. All the instructors who participated in this study used a common Learning Management System (LMS) for teaching online/blended classes for graduate courses in the field of Education. Each instructor participated in a preliminary study focusing more broadly on their

pedagogical decision-making related to their online teaching methods and agreed to give further input about their thoughts and experiences concerned with producing instructor-generated videos in their online courses.

First, a team of six inter-disciplinary researchers including experts in film and production developed a coding matrix to analyze the videos related to *purpose*, *content* and *format* [17]. Purpose included: weekly summaries, course introductions, online lectures and how-to videos). 'Content' included: sequence of content, audience, emotion, tone, and use of 'show and tell' technique. 'Form' examined 20 characteristics (Appendix A). Due to the wide variety of characteristics, the team narrowed the focus to those characteristics most represented in current literature: camerawork, PIP (picture in picture) mode, screen activity, video length, and setting. Other characteristics derived from these data will be explored, analyzed and reported in future publications. The intent of the coding was to categorize areas for further examination and to begin to develop a framework to examine instructor videos more broadly to support pedagogical self-reflection.

After reviewing the coded matrix, content characteristics were further categorized to better understand: the frequency of each video's purpose, technical considerations such as video length and video design decisions (PIP, full-frame, use of screen capture, and full-frame instructor video). Videos using the instructor's image were further categorized to examine the setting recording location) and camerawork techniques (camera angle, framing, distance).

Next, we explored four instructor interviews of the instructors whose videos we coded and looked for themes in our coding matrix. These interviews, conducted as a part of a previous study, included a series of open-ended questions (Appendix B) designed to elicit responses on how the format of the videos align to faculty-expressed pedagogy around ideas of social presence and increased student online engagement. Two separate researchers coded interview responses to determine themes and ideas emphasized by the participants. Responses from the interviews helped explore and elaborate the rationales for instructor pedagogy in terms of video format and design.

4 FINDINGS

Coded matrix of online videos (Appendix C), and thematic analysis of instructor interviews helped identify the pedagogical purposes of these videos and contributes to several aspects of video production: particularly technical and humanized elements.

Findings from coding and interviews reveal some of the ways instructors frame their own use of videos in their courses.

First, all instructors worked with a time limit in mind (video length) and stated a variety of reasons behind their chosen length. Key considerations included students' cognitive load [50], students' attention span, and their own belief that shorter videos retain student engagement.

Three of the four instructors noted that they planned to stay under 15 minutes: most of their videos averaged 12-13 minutes in length. Half of the instructors noted that length of their videos was dependent on purpose. Of all the instructional video types (weekly summaries, course introductions, online lectures, and tutorials), weekly summaries were the longest. All instructors also agreed that 'chunking' videos into topical/thematic segments benefitted their students, but only half of the instructors actually used this technique. However, the remaining instructors expressed their interest to do so in future.

When the instructor's face was a part of the video, most of the shots were eye-level close-ups and medium close-ups. The vast majority of the videos showing the instructor with a PIP mode used a screen capture as the base video layer: the instructor's face was in a small inset widow on the right. The inset image remained on the screen for the duration of the video in all analyzed videos except one.

Interestingly, all instructors expressed their interest in creating more conversational, informal and less scripted video. By including themselves in the video, some instructors believed that it helped the students connect to the course material and the instructor and increased teacher presence. Further, instructors said that instructor videos also provided face-to-face interaction, helped build trust, and made the online experience feel less 'disembodied'.

The settings instructors chose was a factor we examined in this study. Personal settings, such as a living room or outside porch, was the setting for 50% of the videos. The other 50% were recorded in a

professional setting (work office). Half of the instructors reported convenience as the main factor for choosing their recording location, and only one instructor did not consider location as a significant factor in the production of their videos. Three of the four instructors reported that technical issues (like lighting, sound, and background) were considered while choosing a recording place.

Despite half of interviewees expressing that location was more about convenience, all felt that recording location and use of objects impacted social presence, added to their connection with students and promoted a degree of informality. Using a natural or personal environment made it feel 'real'. Ari stated, "I used to record my webinars that also had a live option in my daughter's playroom because that's where I had my computer at the time. In the background students could see large stuffed toys" and that "it made them feel like I was a real person" [9]. Interestingly, three quarters of the respondents stated how they wanted to avoid a "staged" or "performance" feel to their videos.

Samia commented "my students have told me that they like seeing my image. I believe that visual presence is important for students in forming trust" [9] and Ari shared "students have commented that seeing me in the weekly videos is like having me speaking directly to them in their space - so that is really valuable feedback" [9].

5 CONCLUSIONS AND EDUCATIONAL IMPLICATIONS

Research suggests that instructors share a fairly consistent set of instructional goals for their online instructor-created videos which accords with the findings of our study [52]. These goals influence technical decisions that shape the videos and are a way for students to connect with instructors as "real" people. Methodologically, categorizing instructor-video features provide a beginning framework for continued research and establishes a potential set of criteria for instructors' evaluation of their own videos.

This study analyzed the purpose, format and humanizing factors of 64 instructor-created online videos from four course instructors and serves as the first stage of an ongoing investigation to frame an ontological system for use by other instructors and researchers to look more deeply at characteristics of instructor videos: ideally instructor videos can be optimized to better enhance student engagement and to add to a growing community of knowledge.

Currently, we are developing a comprehensive analysis of the *content* of instructor videos, to be mapped onto the format structure presented. Such a comprehensive coding system designed for categorizing instructor-generated videos may uncover some of the assumptions and biases about online practices and help to inform the ongoing development and creation of theoretically sound online course design and implementation strategies.

Further, we plan to use this coding framework with a large sample of online instructors who use instructor-created videos in their courses, thus, refining the framework and offering instructor support.

There are limitations to this pilot study. We have studied instructor videos for teacher-education students in one Canadian university and only on courses offered on a single platform. Future studies will look at the generalizability of the study and compare our preliminary findings with practices of instructors across other settings and disciplines.

ACKNOWLEDGEMENTS

This project was sponsored by the SSHRC Insight Grant, 2016 at the University of Toronto, *What Does Interaction Really Contribute to Online Learning?* [53].

REFERENCES

- [1] J. Wang and P. Antonenko, "Instructor presence in instructional video: Effects on visual attention, recall, and perceived learning," *Computers in Human Behavior*, vol. 71, pp. 79-89, 2017.
- [2] R. Garrison, T. Anderson and W. Archer, "The first decade of the community of inquiry framework: A retrospective," *The Internet and Higher Education*, vol. 13, pp. 1-2, 5-9, 2010.

- [3] M. Putman, K. Ford and S. Tancock, "Redefining Online Discussions: Using Participant Stances to Promote Collaboration and Cognitive Engagement," *International Journal of Teaching and Learning in Higher Education*, vol. 24, no. 2, pp. 151-167, 2012, retrieved from <http://www.isetl.org/ijtlhe/> ISSN 1812-9129.
- [4] P. Shea, C. Li and A. Pickett, A, "A study of teaching presence and student sense of learning community in fully online and web-enhanced college courses," *The Internet and Higher Education*, vol. 9, no. 3, pp. 175-190, 2006, from doi:10.1016/j.iheduc.2006.06.005.
- [5] D. Nandi, M. Hamilton and J. Harland, "Evaluating the quality of interaction in asynchronous discussion forums in fully online courses," *Distance Education*, vol. 33 no.1, pp. 5-30, 2012, retrieved from doi: 10.1080/01587919.2012.667957
- [6] D. Garrison and T. Anderson, T. *E-learning in the 21st century*. New York: Taylor & Francis, 2003.
- [7] K. Phirangee, C. Epp and J. Hewitt, "Exploring the Relationships between Facilitation Methods, Students' Sense of Community and Their Online Behaviours," *Online Learning*, vol. 20, no. 2, 2016, retrieved from doi:10.24059/olj.v20i2.775
- [8] D. Garrison, T. Anderson and W. Archer, "A theory of critical inquiry in online distance education," *Handbook of distance education*, vol. 1, pp. 113-127, 2003.
- [9] T. Avery, "Teacher presence and pedagogy: a thematic interview discussion about online learning", Toronto, ON: University of Toronto, thesis, 2018, note: pseudonyms used.
- [10] J. Arbaugh, "Do Undergraduates and MBAs Differ Online?: Initial Conclusions From the Literature" *Journal of Leadership Organizational Studies*, vol. 17, no. 2, pp. 129-142, 2010, retrieved from doi:10.1177/1548051810364989.
- [11] R. Owston, D. York, & T. Malhotra, "Blended Learning in large enrollment classrooms: Student perceptions across four different instructional models" *Australasian Journal of Educational Technology*, vol. 35, no. 5, pp. 29-45, 2019, retrieved from <https://ajet.org.au/index.php/AJET/article/view/4310/1572>.
- [12] M. Oztok and C. Brett, "Social presence and online learning: A review of the research," *The Journal of Distance Education*, vol. 25, no. 3, pp. 1-10, 2011.
- [13] K. Swan, D. Garrison, and J. Richardson, "A constructivist approach to online learning: the Community of Inquiry framework," In Payne, C. R. (Ed.) *Information Technology and Constructivism in Higher Education: Progressive Learning Frameworks*. Hershey, PA: IGI Global, pp. 43-57, 2009.
- [14] C. Brame, "Effective Educational Videos: Principles and Guidelines for Maximizing Student Learning from Video Content," *CBE Life Science Education*, vol. 15, no. 4, 2016, doi: 10.1187/cbe.16-03-0125.
- [15] R. Weiss, "Humanizing the online classroom," *New Directions for teaching and Learning*, vol. 84, pp. 47-51, 2000.
- [16] M. Hibbert, K. Kerr, A. Garber and M. Marquart, "The human element: Fostering instructor presence through online instructional videos," *Creating Teacher Immediacy in Online Learning Environments*, IGI Global, pp. 91-112, 2016.
- [17] H. DeWaard, "Voice and video instructor feedback to enhance instructor presence," *Humanizing Online Teaching and Learning*, Ch. 5, 2016.
- [18] P. Guo, J. Kim and R. Rubin, "How video production affects student engagement: An empirical study of MOOC videos," ACM, pp. 41-50, 2014.
- [19] L. Dringus, M. Snyder and S. Terrell, "Facilitating discourse and enhancing teaching presence: using mini-presentations in online forums," *The Internet and Higher Education*, vol. 13, no. 1, pp. 75-77, 2010.
- [20] P. Ice, Phillip, R. Curtis, P. Phillips and J. Wells, "Using Asynchronous Audio Feedback to Enhance Teaching Presence and Students' Sense of Community," *Journal of Asynchronous Learning Networks*, vol. 11, no. 2, pp. 3-25, 2007.

- [21] M. Kruger-Ross and R. Waters, R. D. (2013), "Predicting online learning success: Applying the situational theory of publics to the virtual classroom," *Computers & Education*, vol. 61, pp. 176–184, 2013.
- [22] A. Mann, "From the Politics of Re-presentation to the Poetics of Re-presentation: Documentary Filmmaking," *American Educational Research Association*, Washington, 2016.
- [23] J. Borup, R. West, and C. Graham, "Improving online social presence through asynchronous video," *The Internet and Higher Education*, vol. 15, pp. 195-203, 2012.
- [24] J. Borup, R. West, R. Thomas and Graham, "Examining the impact of video feedback on instructor social presence in blended courses" *The International Review of Research in Open and Distance Education*, pp. 232-255, 2014.
- [25] C. Fulford, and S. Zhang, "Perceptions of interaction: The critical predictor in distance education," *American Journal of Distance Education*, vol. 7, no. 3, pp. 8–21, 1993.
- [26] J. Richardson and K. Swan, "Examining social presence in online courses in relation to students' perceived learning and satisfaction," *Journal of Asynchronous Learning Networks*, vol. 7, no. 1, pp. 68-88, 2003.
- [27] R. McAlister, "Use of Instructor-Produced YouTube © Videos to Supplement Manual Skills Training in Occupational Therapy Education," *The American journal of occupational therapy: official publication of the American Occupational Therapy Association*, vol. 68, pp. S67-S72, 2014, retrieved from 10.5014/ajot.2014.685S04.
- [28] H. Brecht, "Learning from Online Video Lectures," *Journal of Information Technology Education: Innovations in Practice*, vol. 11, pp. 227-250, 2012.
- [29] W. Zhang and J. Zhou, "Image preprocessing technique of digital video interpretation," *Guangdian Gongcheng/Opto-Electronic Engineering*, vol. 33, no. 10, pp. 141 – 144, 2006.
- [30] G. Stahl and F. Hesse, "Practice perspectives in CSCL," *International Journal of Computer Supported Collaborative Learning*, vol. 4, no. 2, pp. 109-114, 2009.
- [31] K. Swan, P. Shea, E. Fredericksen, A. Pickett, W. Pelz, and G. Maher, "Building Knowledge Building Communities: Consistency, Contact and Communication in the Virtual Classroom," *Journal of Educational Computing Research*, vol. 23, no. 4, pp. 359-383, 2012, retrieved from doi:10.2190/w4g6-hy52-57p1-ppne.
- [32] Beuchot A, Bullen M. Interaction and Interpersonality in Online Discussion Forums. *Distance Education* 2005 05;26(1):67-87.
- [33] C. Gunawardena, "Social presence theory and implications for interaction and collaborative learning in computer conferences," *International Journal of Educational Telecommunications*, vol. 1, no. 2/3, pp. 147-166, 1995.
- [34] C. Gunawardena and F. Zittle, "Social presence as a predictor of satisfaction within a computer-mediated conferencing environment," *The American Journal of Distance Education*, vol. 11, no. 3, pp. 8-26, 1997.
- [35] J. McDonald, and C. Gibson, "Interpersonal dynamics and group development in computer conferencing," *The American Journal of Distance Education*, vol. 12, no. 1, pp. 7 – 25, 1998.
- [36] C. Vrasidas, "Constructivism versus objectivism: Implications for interaction, course design, and evaluation in distance education," *International Journal of Educational Telecommunications*, vol. 6, no. 4, pp. 339-362, 2000.
- [37] C. Graham, "Blended learning systems: Definitions, current trends, and future directions," In C. J. Bonk & C. R. Graham (Eds.), *Handbook of blended learning: Global perspectives, local designs*. San Francisco, CA: Pfeiffer Publishing, pp. 3-21, 2006.
- [38] R. Thomas et al., "An analysis of instructor social presence in online text and asynchronous video feedback comments", *Internet and Higher Education*, 33., p. 61-73.
- [39] E. Boling, M. Hough, H. Krinsky, H. Saleem, and M. Stevens, "Cutting the distance in distance education: Perspectives on what promotes positive, online learning experiences," *Internet and Higher Education*, vol. 5, no. 2, pp. 118-126, 2012.

- [40] A. Lyons, S. Reysen and L. Pierce, "Video lecture format, student technological efficacy, and social presence in online courses," *Computers in Human Behavior*, vol. 28, no. 1, pp. 181-186, 2012.
- [41] L. Rourke, T. Anderson, W. Archer and R. Garrison, "Assessing social presence in asynchronous computer conferencing transcripts," *Journal of Distance Education*, vol. 14, no. 2, pp. 50-71, 1999.
- [42] R. Kizilcec, J. Bailenson and C. Gomez, "The instructor's face in video instruction: Evidence from two large-scale field studies," *Journal of Educational Psychology*, vol. 107, no. 3, pp. 724-739, 2015.
- [43] R. Mayer, *Multimedia learning*, Cambridge University Press, 2001.
- [44] A. Mann, T. Avery and C. Brett, "Welcome to Online Learning: Pedagogy and Practice in Instructor-Generated Videos," *American Educational Research Association (AERA)*, Toronto, ON, 2019.
- [45] P. Ernest, "The one and the many," *Constructivism in education*, L. P. Steffe & J. Gale (Ed.), Hillsdale, NJ: Lawrence Erlbaum Associates, pp. 459-486, 1995.
- [46] M. Gredler, "Hiding in plain sight: The stages of mastery/self-regulation in Vygotsky's cultural-historical theory," *Educational Psychologist*, vol. 44, no., pp. 1-19, 2009.
- [47] D. Garrison, *E-Learning in the 21st century: A framework for research and practice* (2nd Ed.), London: Routledge/Taylor and Francis, 2011.
- [48] P. Shea and T. Bidjerano, "Community of inquiry as a theoretical framework to foster "epistemic engagement" and "cognitive presence" in online education," *Computers and Education*, vol. 52, pp. 543 – 553, 2009.
- [49] F. Biocca, C. Harms, and J. Burgoon, "Criteria for a theory and measure of social presence," Cambridge, Mass: Presence, vol. 12, no. 5, pp. 456–480, 2003.
- [50] M. Oztok, D. Zingaro, A. Makos, C. Brett and J. Hewitt, "Capitalizing on social presence: the relationship between social capital and social presence," *Internet and Higher Education*, Vol. 26, no. 7, pp. 19-24, 2015.
- [51] J. Sweller, "Cognitive load during problem solving: Effects on learning," *Cognitive Science*, vol. 12, no. 2, pp. 257–285, 1998, doi:10.1207/s15516709cog1202_4.
- [52] G. Pan, S. Sen, D. Starrett, C. Bonk, N. Rodgers, M. Tikkoo and D. Powell, "Instructor-made videos as a learner scaffolding tool," *Journal of Online Learning and Teaching*, Merlot, vol. 8, no. 4, 2012, retrieved from http://jolt.merlot.org/vol8no4/pan_1212.pdf.
- [53] J. Hewitt and C. Brett, "SSHRC Insight Grant," Toronto, ON: University of Toronto, 2016.

APPENDICES

Appendix A: Characteristics for observing format of instructor videos

- | | |
|--------------------------------------|---------------------------------|
| 1. Instructor name | 11. Cursor use |
| 2. Video name | 12. Head shot/ screen capture |
| 3. Type of video | 13. Number of cuts |
| 4. Stated purpose of video | 14. Intro-outro |
| 5. Video length | 15. Props/ <i>Mise en scene</i> |
| 6. Video hosting | 16. Hardware |
| 7. Setting/location | 17. Software |
| 8. Camera angle | 18. Audio |
| 9. Camera distance | 19. Lighting |
| 10. Split screen/ Picture in picture | 20. Video format |

Appendix B: Instructor video interview questions

On behalf of the University Research team, thank you in advance for responding to our interview questions. For efficiency, we are sending you the questions in written form for you to respond to in writing. Thank you!

Context: Four instructors have contributed a series of instructor videos for our research. We have coded these based on **purpose, content** and **format** (deWaard, 2016). We have decided to focus on format (this entails camerawork, screen activity, length, setting) and how this relates to social presence and the improvement of student engagement in online courses. A preliminary description of your videos has been already been determined via data coding (the categories include: feedback, summary, tutorial, lecture-capture etc.). *Please also see attached Confidentiality Waiver. Note this is the same as you would have signed in the Fall.*

- 1 How long have you been making instructor videos?
- 2 Can you describe your current workflow to both prepare for and produce an instructor video? Please comment on tools you use: recording software, recording equipment, audio recording equipment (if recorded separately) and device (laptop, phone, desktop etc). How basic/advanced would you describe your current workflow? Point form is fine.
- 3 What determines the length of your videos? What do you consider a good length for instructor videos, generally speaking? How are you mindful of video length in the creation of your video recordings (cognitive load on students, *Youtube* recording limits, etc.)?
- 4 Do you, or have you considered, 'chunking' video content by topic/theme to shorten the length/improve efficacy in content retrieval, etc.? Why/ why not?
- 5 Can you describe your use of speaking notes, if you use them? How extensive are your notes (bullet points; talking points; more text)? Or, would you describe your videos as less 'scripted' and more conversational in nature?
- 6 Instructor presence has been noted as a key factor in increased student engagement (Hibbert, 2014). All/some of your videos use the 'picture-in-picture' mode. This entails your recorded image on the screen, overlapping your screen capture. How do you think your visual presence supports student learning/ engagement?
- 7 What decisions go into your recording location(s) (for example: technical reasons such as lighting, convenience, or social presence etc.)?
- 8 Can you talk about how the setting (indoor/outdoor and professional/personal) and objects (eg: sipping tea) might further impact your instructor presence?
- 9 What technical/formatting aspects are you still experimenting with/ would like to experiment with as your instructor videos evolve over time (for example, text features, changes in lighting, advanced video editing)? What would you like to learn more about when it comes to the technical aspects of making instructor videos?
- 10 Do you have anything else you'd like to add regarding instructor video format that you haven't had a chance to mention.

Appendix C: Tables of Data

1. Years of Instructor Experience Creating Instructor Videos

Instructor	J	C	A	S
Years of experience	15	8	5	5

2. Video Length in Minutes

Instructor	J	C	A	S
Average length	3:23	13:14	12:63	12.92
Longest video	5:00	19:10	20:41	21:11
Shortest video	0:50	5:09	3:46	7:29

3. Purpose of Video

Instructors	Total (out of all 46 videos)	% of Total videos	J Out of 6 videos	C Out of 26 videos	A Out of 7 videos	S Out of 7 videos
Weekly Summaries	25	54%	6	23	0	2
Course introduction	12	26%	0	3	3	0
Online lecture (with slides)	6	13%	0	0	1	5
Tutorial (how-to)	3	6.5%	0	0	3	0

***Note:** a significant number of 'weekly summaries' also contained some group/ class feedback. Some videos categorized as summaries also contained some lecture elements. Also, longer videos tended to have more than one purpose.

4. Screen Activity/ Screen Design

Instructor	J	C	A	S
PIP use (picture in picture)	Used 0/6 times	Used 26/26 times	Used 2/7 times	Used 6/7 times
Full frame screen capture	5/6	0/26	5/7	1/7 (for part of video)
Full video of instructor	1/6	0/26	0/7	1/7 (for part of video)
Described findings:	Instructor J consistently used full frame screen capture, -one with instructor in video	Instructor C consistent with PIP use each time	Instructor A mostly used full screen capture	Instructor S consistent PIP use (this is a standard layout for Adobe Connect)

5. Videos Including Instructor Image

	Total
Recorded in professional work environment	11
Recorded in Home environment	11
Other	1
Undetermined	9