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Video for All: An Argument Towards Standardization Of Video Production Practices and Research

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Introduction

At its core, this capstone was born out of pedagogical necessity during the global COVID-19 pandemic of 2020-21, an event that forced many educators, myself included, to quickly and creatively shift their face-to-face teaching approach into digital formats. Educational video(s) from zoom meetings to video lectures became an easily transferable method for shifting face-to-face learning environments into digital spaces during this national crisis (Faridahet al., 2020). As an English 1101 educator with professional experience in video production, I saw a unique opportunity during this unusual moment in history to converge my expertise in both fields. Thus, the "COVID-19 Apocalypse Video Lecture Series" was born—a video lecture series that replaced my face-to-face educational lectures with the affordances of green screen video production in both an entertaining and educational manner.

Despite basing my video production methods at that time in rushed techniques and prior video production experience, students in both of my English 1101 sections responded with overwhelming positivity to this impromptu video lecture series. This response, in contrast to what my colleagues were anecdotally reporting during their use of asynchronous Zoom lectures, prompted what would eventually become the guiding inquiries of this capstone project; the positive response from students sparked a desire to comb the academic conversations surrounding best production practices in video pedagogy to better understand what could shift student engagement and learning outcomes. After a few months of engaging with this niche field of academic literature, three guiding research questions were formed: 1) How could video pedagogy shift student attitudes or engagement with course content in digital learning environments? 2) What benefits and limitations of standardizing and researching video pedagogy are valuable for educators interested in creating video to understand, including

educators with limited or no video production experience? 3) In what ways could certain production techniques in video pedagogy applicable to classroom settings transfer to certain professional writing contexts such as non-profit awareness campaigns or online social media marketing?

Although the first inquiry of this project is beyond the scope of research feasibility in this work, the purpose of this capstone is not necessarily to fully answer it. Rather, I want to provide future researchers of this topic with a more grounded approach for testing, measuring, and implementing video production strategies in educational video content in a way that can verifiably shift viewer engagement and learning outcomes. This is intended to provide a baseline for specific types of video production standardization that could be immensely beneficial to instructors not familiar with the decades of academic conversations surrounding the topic. Additionally, an argument for transferability of certain production techniques between educational contexts is also at the core of this capstone project: despite rooting a majority of research in higher education digital learning environments, the final sections of this project will apply the same techniques to actual video productions in both higher education and professional writing contexts. This specific approach will demonstrate that, although this research might be most beneficial for educators within higher learning environments who have limited or no video production experience, the findings, application of theory, and suggestions for future research throughout this capstone project are beneficial for any instructor or organization wishing to create engaging educational video content that shifts viewer engagement and learning outcomes.

Purpose of Study and Research Methods

In the decades leading up to this massive and more recent forced modality shift amidst COVID-19, a select few in the academic community (Fiorella & Mayer, 2015; Guo et al. 2014) pondered over the looming possibility of a digital learning revolution within the realm of higher education—one that would enable a widespread normalization of video education and the growing affordances found within computer mediated technologies. Their call for further research into best video practices was not without merit: by 2011, for example, a study on the growth of online course offerings in U.S. universities revealed that from over 2,820 higher education institutions across the nation whom participated in the survey, 32% of students at these universities were enrolled "some form of online courses" of which video pedagogy was a "major component" of their digital learning offerings; this data, compared to online student enrollment percentage of only 9% a decade prior, seems to suggest that not only are a growing number of students withinuniversities enrolling in online courses, these same students are being frequently exposed to educational video content in some form (Allen & Seaman, 2013). The synchronous growth in online class enrollment and exposure to video pedagogy should not come as a complete surpriseeither: students in these digital environments come to higher education environments already familiar with self-created educational video content as growth in consumer demand of "edutainment," a particular style of video education that is highly effective at capturing what Ashraf (2009) refers to as the "YouTube Generation," [1] grows in popularity across the Web 2.0 landscape.

[1] The "YouTube Generation" also refers to what some scholars in humanities refer to as "digital natives." See Lutkewitte, C. (2012).

This "YouTube Generation," as Ashraf describes in his 2009 piece, is a generational subset of students who come to digital classroom environments already familiar with Web 2.0 technologies, and data suggests these digital natives have grown and evolved with the 24/7 and condensed nature of Web 2.0 content (Jeong et al. 2018, p. 77). Scholars following this trend in student behavior and classroom expectations for the past few decades have produced a myriad of data that reveals, in various contexts and learning environments, that the "YouTube Generation" responds to instructor produced video content more positively than any other medium in digital learning environments (Ou, 2016, p. 143). In other words, video content produced solely by the in-class instructor has an overall positive effect on student engagement and attitudes within digital learning environments. Data collected by researchers in this field over the last decade also indicate that instructor-produced video content is the most effective medium for improving learning outcomes within digital learning environments and is preferred by students by wide margins over other digital pedagogy techniques (Guo et al., 2014; Fiorella & Mayer, 2015).

Although scholars have put a lot of effort in exemplifying the connection between instructor produced video content and student engagement/learning outcomes, research into effective video production practices in educational contexts remains largely theoretical in scope and lacks any real form of standardization or empirically driven data for best practices (Poquet et al., 2017, p. 151). Moreover, the focus of many academic conversations surrounding educational video production processes—more specifically what techniques for planning, shooting, and editing video are most effective for improving student engagement or learning outcomes—continues to be widely discussed within the literature despite a lack of widespread empirical data. The discussion of best video production practices is likely continuing within academic circles because, although the actual production of video content is a crucial element for

first time and experienced video educators to consider in their classrooms, standardization of this process is often dismissed or ignored by the most prominent video pedagogy scholars as "infeasible on a large scale" (Hansch et al., 2015, p. 9).

One specific study that is often referenced by scholars, aptly titled "How video production affects student engagement: An empirical study of MOOC videos," attempted to retroactively collect testimonial data from a select few instructors who frequently create video content in Massively Open Online Courses (MOOCs); from four long-form interviews, the data suggests that instructors in these digital spaces used "standardized" production methods to meet their own educational needs, but that those techniques were primarily based in trends, anecdotal evidence, and/or a limited selection of MOOC-specific studies (Guo et al., 2014, p. 41-2). Approaching educational video production without at least some foundational research and data on best practices, although sometimes effective, is a game of trial and error that can't be verifiably tested on a large scale. From an instructor's perspective with limited or no video production experience, similarly, approaching the task of self-producing video content for the first time could seem inherently pointless when juxtaposing potentially long video production times with unclear learning outcomes.

Yet, despite this gap in empirical research for video production practices, comprehensive studies on video pedagogies' impact on learning over the past few decades have consistently revealed that students in higher education, particularly those that fall into the "YouTube Generation," generally have "positive affective and cognitive attitudes toward the use of videos to support learning" even when those videos are not of a high production quality—especially when those videos are created by an instructor they are familiar with on a personal level (Kay, 2012, p. 829). Although this data may muddle the argument for standardization, it also opens the

door for testing certain aspects of production standardization (such as maximizing instructor presence) rather than pursuing a "one-size-fits-all" production methodology. As Hansch et al. argued further in a report that labeled widespread standardization as "infeasible," the scholar also suggested that the impetus for standardization should focus on production techniques that allow instructors to "translate their own personality and teaching approach to video format" in the most effective manner possible (p. 10). This further echoes data from across the academic conversation about best practices within educational video production, namely Fiorella & Mayer, 2015; Ou et al., 2019; Laster-Loftus, 2019; and Guo et al., 2014, who all similarly suggest that instructor presence in some form or another is a major component for fostering student engagement and learning outcomes. If this sentiment is true, and organizations continue to shift further into digital spaces to meet their educational needs, then it is necessary that further testing of some basic video production standardization practices should be further explored to better focus on maximizing instructor presence, disregarding high production value as a necessary component of success, and tailoring video content to meet specific audience expectations of Web 2.0 digital learning environments.

Research Methods

To begin addressing this concern and lay the groundwork for more standardized future empirical research into more specific educational video production practices, this capstone will first explore existing literature within the field to identify and define key findings and research, identify four specific production practices which could also be easily adapted for first time educational video creators without high video production costs or experience, and then apply the selected set of specific

production techniques to the actual production and dissemination of three varying educational videos in the higher education, non-profit, and online marketing environments.

After applying theory to the creation of three sample educational videos to demonstrate how adaptable those production techniques are, this capstone will conclude by laying out suggestions for future researchers to pursue more specified empirical testing of production variables on a larger scale. Just like with the creation of video artifacts in the previous sections, this methodological argument will be exemplified with two different sample surveys—one for higher education contexts (see Appendix A) and one for more generalized, professional writing contexts (see Appendix B)—that each borrow from the successes and failures of contemporary empirical testing practices on viewer engagement and learning outcomes as well as my own anecdotal experiences as both an educator and video producer.

In accomplishing the creation of three video artifacts, sample surveys, and suggestions for future researchers based on contemporary video pedagogy literature, the groundwork and exigence for testing the effect on engagement each of the production variables have on viewers in a larger, more controlled setting will hopefully be established for future researchers of the topic. Although videos have been an integral part of education systems in meaningful ways for nearly 100 years, the ability for educators in higher education, non-profit, and commercial contexts to independently produce content to meet their own instructional needs without large production barriers or costs is a new possibility of computer mediated technologies (Murray, 2012). Because the demand for engaging pedagogical methods in digital spaces is larger than ever, especially amidst the COVID-19 digital learning environment, highlighting how a few specific video production techniques could influence engagement and learning outcome with suggestions for further testing should begin to illustrate that meaningful and engaging

educational video content isn't so much about an individual's technical know-how: it is about the ability of an educator to effectively translate their teaching approach into video format in a unique and personalized way by considering the affordances of the video medium and expectations of their audience.

Review of Literature

Before understanding how educators can alter video production practices to shift viewer engagement and learning outcomes, it is important to first note that the very definition of video pedagogy carries a variety of semantic interpretations that span many academic disciplines and pedagogical contexts. Although some scholars argue that any form of educational video production constitutes video pedagogy, others are more nuanced in considering what context(s), production techniques, and stylistic choices constitute an educational video. For the purposes of this capstone, however, the production variables tested focus on a specific type of video genre academics in the field identified as *instructional videos.* The focus on instructional videos is important for a few reasons: 1) following a more narrowed categorization of video content will further the rationale for transferability between educational contexts, and 2) empirical studies over the past few decades that have measured the effects of instructor created videos on student engagement, specifically Guo et al., 2015, reveal that students seem to prefer the structure of instructional videos (p. 44).

According to Fiorella & Mayer (2018), instructional videos are different than other forms of video pedagogy in that they can "stand alone or be part of a larger lesson and be easily accessible through video sharing platforms like YouTube or part of accessible course material available through a learning management system" (p. 1). In contrast, other forms of video education found throughout higher education digital learning environments, namely video lectures, synchronous online classrooms, and video assessment/feedback, are distinctly different from instructional videos in that they fail to meet three very specific criteria. These other forms of video education are also more context-specific and often not intended to affect viewer engagement in a meaningful way, such as the case with video assessment/feedback in a digital

learning environment (Ou et al., p. 85). Defined more clearly by Fiorella & Mayer, 2018, there are three specific criteria for what constitutes video pedagogy as an "instructional video" production, including:

> **1)** instructional videos are usually short in duration, with some scholars arguing for 6 minutes as the hard-cutoff threshold (see also Guo et al., 2014, p. 44); **2)** instructional videos combine some form of visual, verbal and graphic modalities in meaningful, multimodal ways; and **3)** instructional videos are geared to help viewers learn a *single* concept in a targeted manner, such as a single theoretical concept (ex. "Gravity Explained Simply") or procedural skill (ex. "How to Replace a Headlight Bulb"). (p. 1)

In contrast, other forms of video pedagogy disqualify as instructional videos when they exceed approximately six minutes in length (give or take), stick to only one modality without covering various affordances of multimodality (such as fixed-perspective videos, ex. "Advanced Algorithms (COMPSCI 224), Lecture 1"), and span a wide range of concepts beyond what could be argued to be a single conceptual focus (Fiorella & Mayer, 2018, p. 2). For example, a live Zoom class meeting that was recorded and uploaded to a learning management system might be an obvious candidate for what most contemporary educators would define as video pedagogy, but it would not be classified specifically as an instructional video because it lacks two of the three criteria listed above.

The decision to narrow the focus of this capstone on video pedagogy that can only be categorized as "instructional videos" is important to the core methodological argument of the research goals: keeping transferability between educational contexts in mind for instructors with limited or no video production experience by focusing on the production of instructional videos will assist future researchers who wish to replicate the methodological suggestions on a large

scale. Additionally, this decision also aligns the content focus on educational video that capture the engagement of what Ashraf, 2009, defined as the "YouTube Generation," or audiences familiar with popular educational video content on the web. The production variables used to create videos in later sections of this capstone will strictly adhere to the criteria for instructional video above to maintain this transferability and audience appeal in a medium already rife with variables.

From Silent Film to Digital Learning

Now that this capstone's focus on instructional video pedagogy has been established, it is important to understand why the benefits and limitations of video pedagogy, especially in more recent years, have been debated amongst academics. To start, utilizing video production for educational purposes, commonly referenced by scholars as "video pedagogy," has existed and evolved with the medium of video itself. In 1930, for instance, motion picture pioneers from the likes of Thomas Edison to William Lewin argued strongly for the educational affordances of motion picture technologies, with Lewin quoted in a 1930 article that "the addition of color and sound, the film will tell more about the world in ten minutes than any ordinary book could in a whole hour" (Kivel, 2014). Compared to the pioneering advent of silent black and white films referenced by Lewin in this 1930 quote, modern videos can—and do—have unique advantages when it comes to disseminating key information in learning environments even beyond just color and sound. From multimodal affordances like images, sound, color, and on-screen typography, toviewer pace control that caters to each individual learner's needs (pausing, playing, fast-forward,and rewinding), videos appear to have empirically tested rates of learner engagement that are demonstrably higher than other digital learning mediums (Hansch et al., 2015).

Before the ubiquity of easily accessible digital spaces for video content like YouTube, the use of educational video et large seemed to be readily dismissed by media and film scholars in higher education—particularly throughout the early-to-mid twentieth century. Since it was usually only accessible to the public in the form of well-produced movie or television programs, some scholars saw educational video as an entertainment vessel that worked solely to water down academic values and traditional literacy practices (Jameson, 1987). Other media-focused scholars, particularly notable media theorists like Walter Ong (1982) and Gregory Ulmer (1995), saw value in the future "hybrid of entertainment and education," especially when future tech could allow film and computers to converge in "on-line multimedia stations" (Ulmer, p. 272).

It was around the early 1990s that this convergence was brought into reality. As the internet popularized self-produced digital media and grew to become more accessible for the general public at the turn of the 21st century, so too did scholars begin recognizing the need for effective modes of pedagogy that capitalized on the affordances of digital mediums inside these new and highly specific digital contexts (Scagnoli, Choo & Tian, 2019, p. 399). Andso, as higher education began a shift into new digital spaces, some scholars dismissed antiquated notions of digital learning that dominated academic institutions in order to capitalize on these new and unexplored digital learning mediums. Video pedagogy, as well as other computer mediated technologies, became a pivotal tool for educators to capture a new generation.

This influx of digital native learners from within the "YouTube Generation" have been why many educators, scholars, and theorists in higher education have prioritized finding effective pedagogical strategies for bolstering student engagement in digital spaces. In my own field of Composition Studies, for instance, scholars like Welch (1999) and Shipka (2011) have been advocating for a shift away from traditional literacy and into multimodal digital learning

practices for decades. As Welch states in her 1999 book *Electronic Rhetoric*, "electronic technologies have led to […] an awareness or mentality that now changes literacy but in no way diminishes it" (p. 104). Shifting away from traditional learning modalities and embracing digital learning, although still making its way across all facets of academia, is becoming especially prevalent in the humanities.

Other humanities scholars such as Leigh (2012) and Spina-Case et al. (2011) have been actively exploring and testing "computer-media technologies" in the composition classroom that capitalize on the affordances of video production, including vlogging, video essays, and video lectures, to shift literacy practices into the digital sphere. Spina-Case et al. even suggests that, "unlink other visual media, video can come closest to writing not only because it can reflect what and how we are thinking, but also because of its immediacy and visibility. It can be recorded and played back instantly or revised and edited later" (p. 8). Nonetheless, although the number of voices within in the humanities that advocate for multimodal practices such as video pedagogy are growing, the conversation surrounding best practices seems to be theoretical in scope while lacking standardized methods for further testing.

The Advantages and Shortcomings of Video Pedagogy

Currently, academic conversations which focus on video pedagogy's influence on student engagement are similar to what was described in the field of Composition Studies above: although there is a lot of excitement surrounding the positive effects on digital learning environments, there is a contrarian focus that seeks to situate video pedagogy as an alternative to traditional literacy practices. This framing, ultimately, moves the exigence of the conversation further awayfrom any nuanced inquiries such as the focus of this capstone. Despite this, positioning video pedagogy as an alternative to traditional literacy practices was necessary in

establishing its pedagogical viability. That does not mean that video pedagogy is not without itsproblems or shortcomings when compared to these traditional literacy practices, however.

For example, Ou et al., 2019, notes that the success of video pedagogy in a learning environment "might depend on [additional] pedagogical methods in the courses, such as online discussions, assignments, and quizzes" (p. 84). While specifically in the context of higher education, multiple variables outside of a video itself contribute to learners' engagement and attitudes with content, namely the students' perception of the instructor (Mayer, p. 243). Furthermore, in terms of actual video production, Hansch et al. notes that focusing research into testing more standardized methods could result in more grounded empirical results for bolstering learner engagement, but the actual practice of widespread standardization is infeasible. After all, there are too many variables at play in a digital or face-to-face learning environment, and each educational context in which video pedagogy is disseminated as a legitimate pedagogical tool will cover different types of content that cater to different types of audiences. As Hansch et al. summarizes in her research, "standardizing video production becomes incredibly difficult when considering how much of a video relies on a specific instructor'spersonality, abilities, and preferences" (p. 9).

Additionally, even if standardization of video production is infeasible at a large scale, the argument for widespread adoption of video pedagogy also faces a different type of problem: measurement and understanding of viewer engagement and learning outcomes is difficult to empirically quantify. As Ou et al. points out, the most common method for measuring the success of an educational video has historically been to measure engagement, but this approach "may not be an effective proxy for measuring learning, because engagement should not be conflated with learning." On the other hand, research by Poquet et al., 2018, demonstrates that

very few of the video interaction studies in MOOC contexts were grounded in educational or psychological theory and instead focused on viewer engagement as a defining quantifier.

Despite these shortcomings in both standardization and learning measurement, there are also a wide variety of pedagogical advantages that academics from Composition Studies to Film Theory frequently point out. For the purposes of this capstone's focus on testing more specific video production practices, however, I will highlight only three main pedagogical advantages of video pedagogy before exemplifying them further in subsequent sections.

Multimedia instruction.

The ability of video pedagogy to dynamically capture what Mayer, 2005, referred to as "multimedia instruction," or the "presentation of material using both words and pictures, with the intention of promoting learning," is apparent in just how many different forms video can take in various learning environments (p. 5). According to Hansch et al. (2015), there are nine definable categories of instructional video and over eighteen production styles (p. 82). A huge contributing factor towards this wide range of modalities is the increased affordability and access to ready-to-use video cameras with video editing software, both of which have enabled a digital renaissance of "DIY" video design options suitable for a large variety of pedagogical demands (Hansch et al., p. 12-13). As Hansch et al. further describes, producing an instructional video is a lot like writing an essay, there is a significant amount of planning, writing, and revision involved throughout the process, and equal weight is not given to each step since every video is unique in what it seeks to accomplish.

Instructor presence and parasocial connection.

Probably the strongest argument for video pedagogy can be observed in the heightened instructor presence unique to video productions that, in turn, foster parasocial relationships[2] in online environments (Hughes, 2009; Scagnoli, McKinney & Moore-Reynen, 2015). Often, the ability of instructors in online learning environments to project themselves as "real people" is limited. Video pedagogy, on the other hand, allows instructors to maintain a sense of "face-to-face" intimacy that is crucial to students' engagement and perception of course content (Garrison et al., 1999, p. 94).

Although there isn't conclusive evidence that suggests how instructors should specifically present themselves on screen to bolster this parasocial effect, what is clear in contemporary research is that on-screen instructor presence "encourages [students] to engage with the on-screen coach/author/instructor as a social conversational partner, [which] results in deeper cognitive processing during learning" (Chaochua et al., 2019, p. 88). As pointed out by Mayer, 2005, this type of cognitive learning isn't unique or new to video pedagogy, but it does emulate the social motivations of students and their instructors in face-to-face environments by "attending to social considerations that affect the learner's motivation to engage in cognitive processing" (p. 244).

Increased student engagement.

Finally, the increase in student engagement for instructor's who disseminate self-produced instructional videos in digital environments is well documented, particularly in MOOC courses (Scagnoli, Choo & Tian, p. 408). The medium of video connects with students across multiple learning styles (audio, visual, and even kinesthetic) to make information more

[2] "Parasocial connection"' is being used strictly in the psychological sense here; see Horton & Wohl, 1956.

accessible and appealing (Manner, 2005). On top of connecting to a wide variety of students' learning needs by providing audio and visual aids, video allows instructors to target specific details in course content/reading that might be overlooked when students are asked to engage with content not curated by the instructor, namely textbooks. A 2017 study found that students in online courses believe instructor-produced content made them more engaged with the course, with 41% of respondents citing instructional videos as the "most preferred" method of receiving course content from their instructor (Jayaratne & Moore, p. 306). With instructional videos tied so heavily to positive student perceptions, motivation, and engagement with course content, the impact instructional videos could have on learning environments beyond just digital classrooms like MOOCs is promising for scholars (Laster-Loftus, 2019, p. 3)

Four Video Structuring Suggestions

The research variables and methods for effectively measuring engagement and learning outcomes with instructional videos is massive in scope, including aspects of video creation such as pre-production, editing training/techniques, multimodality, hardware selection (i.e., camera, microphone, and lighting), and video dissemination. Nonetheless, this capstone research is intended to only highlight the potential for testing certain aspects of video production standardization that could be easily replicated or understood rather than echoing the generalization of other scholars within the field. By narrowing the focus of research onto four specific production techniques related to a video's structure— specifically duration, scripting, perspective switching, and segmenting—future researchers or instructors with limited or no video editing experience can start postulating how every aspect of video production could influence viewer engagement in certain ways.

Researchers exploring standardization of video pedagogy, conversely, may be tempted to factor in production variables that influence video quality such as camera quality, lighting, and/or audio grade as well, but research indicates that "although expensive production techniques are often used in video production" such as in MOOC and asynchronous lecture delivery, there is a "lack of evidence that high production style leads to better outcomes" (Hansch et al, 2015, p. 6). This assumption that high production quality equals higher engagement is, quite possibly, one of the biggest factors that could discourage instructors with limited or no video experience from even remotely considering video pedagogy. If the anecdotal perception of successful video production is that "high quality" equipment and production

expertise is needed to produce an engaging instructional video, then factors such as cost, training, and/or workload might seem discouraging to many.

That being said, as access to high quality point-and-shoot cameras in cell phones with intuitive video editing software become more and more ubiquitous, then the perception of successful pedagogical video productions should also begin moving away from production quality and become more focused on video production techniques that are within every instructor's control. That is why, to echo the exigence of this capstone once again, focusing on how a video's *structure* (and not quality) impacts student engagement and perceptions is the primary focus of this section and is important for processing and contextualizing the remainder of this body of research.

The following subsections will provide an introduction, explanation, and rationale for four video structuring techniques selected from a wide array of academic conversations surrounding best video pedagogy practices, and will focus specifically on ***duration, scripting, perspective switching,*** and ***segmenting*****.** Before reading onward, it is important to note that although there are a wide variety of important structuring techniques one could focus pedagogical research on, these four were selected for their potential to be universally applicable in educational video production contexts ranging from higher education to non-profit awareness campaigns. Additionally, the contextualization of these four structuring techniques will be framed to circumvent any hesitations educators with limited or no video experience might have about equipment, expenses, or expertise in their own learning environments, and each technique could be adapted to a video production using readily available video technologies and editing software.

After introducing, explaining, and rationalizing each of the four video structuring techniques below, the subsequent sections will then apply these techniques to three contextually different instructional videos produced exclusively for this capstone project. This application of findings to real-world video productions will demonstrate, once again, the transferability of each specific technique by putting prominent video pedagogy theory into practice.

Segmenting

The most notable contributors to the field of video pedagogy, Fiorella, 2018, and Mayer, 2005, have spent their academic careers approaching video production theory primarily through a macro conceptual lens: instead of giving specific suggestions on structure, both scholars focus on practices that, when implemented throughout the duration of an entire video, can influence student learning outcomes and engagement. For example, the two scholars joined forces in 2018 to publish a list of suggestions for best production practices within instructional video creation. Most of this research advocates for further research into two video production techniques: segmenting—breaking a video into smaller, organized, and meaningful segments with clear transitions; and perspective mixing—filming from a variety of perspectives and angles with multiple cameras, or at the very least changing the camera angle throughout a video production rather than shooting from a continuous single shot.

In the previously mentioned study, Fiorella & Mayer found that teaching procedural skills in short form is not as effective when attempting to compound too many learning concepts that are tied to larger themes or course content (2018, p. 2). Therefore, just like when approaching a face-to-face lecture in higher education, instructors creating video lessons need to consider their audience's cognitive load and focus on intentionally breaking larger concepts into smaller, more digestible segments. Other scholars, like Ou et al. (2019), suggest more specific

segmenting techniques like the "Four-Phase Instruction Principle" as a potential method for accomplishing effective video segmentation. This four-phase principle adheres to Fiorella & Mayer's concept of segmenting by breaking larger conceptual concepts into four meaningful yet easily identifiable sections for the viewer, although Ou's suggestion is more quantifiable: Phase 1) introduction to theoretical framework; Phase 2) activation of prior experience; Phase 3) introduction of new concepts; and Phase 4.) application of concepts using prior and new experience(s) (Ou et al., 2019, pp 143). Regardless of how an instructor decides to regiment their video production, Ou admits that varying the length of each "phase" produces different results for different learning environments, and he cautions readers that the four-phase system should be applied on a situational basis to meet an individual instructor's specific needs (p. 87). This is an important assertion, as segmenting video content should be focused entirely on the deconstruction of a larger concept into smaller, cohesive, and easily identifiable units.

Perspective Mixing/Switching

Perspective mixing (often interchanged with "perspective switching"), likewise, encourages educational video creators to be more intentional in how they structure the delivery of content in video lessons, but instead capitalizes on one of the unique affordances of video production—switching between different camera viewpoints or perspectives to keep viewers engaged. According to research on cognitive learning by Richard Mayer, the perspective by which students consume instructional videos, for better or worse, may directly influence how learners engage with a lesson (2005, p. 250).

As recently as 2018, the influence of perspective switching on student engagement was empirically tested at a medical school in France. This experiment was accomplished by giving varying samples of nursing students the same instructional video lesson but, across all samples,

altering camera angles randomly or not altering them at all. In short, each participating group in the study viewed the same content in their video lesson but received either a fixed face-to-face shot of the instructor, a fixed over-the-shoulder shot of the instructor, or a mix of the two at random (Boucheix et al., p. 419). Interestingly, the study revealed that the sample of nursing students who were exposed to the video lesson that switched perspectives most frequently, even at random intervals, engaged with the material more positively and were able to replicate the procedure in question more effectively (p. 10).

Although this experiment was highly specific in its educational context and would not necessarily translate to every learning environment (especially those that are not as exclusively visually driven), interdisciplinary research has shown that, regardless of the material being presented in an instructional video, perspective switching can improve viewer engagement and help highlight key concepts that produce better learning outcomes (Fiorella & Mayer, p. 2).

Video Scripting

Although scripting is often debated by scholars as a meaningful or meaningless component of video pedagogy, the concept of intentionally selecting what words/phrases are used in a video production was first discussed as an important component of video education by Richard Mayer under the unassuming nomenclature of the *personalization principle* (2005, p. 242). Defined by Mayer as taking a "conversational, rather than formal style" in video production, the personalization principle has evolved into a theory for how instructor's should consider approaching dialogue, and it is usually achieved in two ways: 1) using personal pronouns ("your paper") rather than indefinite pronouns ("the paper"), and 2) intentionally adding sentences to a spoken script that "break the fourth wall" of video format and talk to the viewer directly (p. 243). The benefit of this approach, Mayer argues, is that it reduces the

cognitive load of viewers by intentionally framing the instructor as a conversational partner rather than a lecturer; additionally, empirical evidence has proven that, when shown non-personalized versus personalized versions of the same instructional video, “ten out of eleven controlled tests showed that students retained more information” when the video was narrated following concepts specific to the personalization principle (Mayer, p. 250).

That being said, one of the challenges of effectively implementing the personalization principlein instructional videos is that scripting a video prior to shooting, either in a formal script or informal series of talking points, can cause instructors to unintentionally disregard certain elements of the personalization principle or seem “robotic” in their delivery of content (Hansch et al., p. 8). This problem seems to arise when instructors disconnect from their conversational or improvisational face-to-face lecture styles and, either intentionally or unintentionally, create an alternate on-screen “persona” of themselves. According to Molly Waser, Lead Course Developer at HarvardX, instructors “are not trained actors, and it’s hard to deliver something that is fully scripted if you are not trained to deliver it” (Hansch et al., p. 8). Additionally, Nigel Smith, Head of Courses at FutureLearn, states that issues in video production arise “most frequently” when instructors try to improvise rather than following a detailed script or outline (p. 8).

Regardless of how the issue arises, scripting becomes problematic only if students don’t see the on-screen instructor as a conversational partner in the learning process. Research suggests that even adopting the two elements of Richard Mayer’s personalization principle theory outlined above will yield higher student engagement, albeit this technique is purely targeted at lessening a learner’s cognitive load on a subconscious level and might not be recognizable by the viewer.

Duration

Finally, the *duration* of a video is widely noted as one of the most important factors when considering how to prompt engagement with instructional videos (Guo et al., 2014; Ou et al., 2016). As discussed at the beginning of the literature review, one of the three traits ascribed to instructional videos by Fiorella & Mayer is that they are "usually between 6-10 minutes in duration." Although the duration of a video is extremely important in defining what types of video content should be categorized as an "instructional video," the variables of duration, such as long versus short videos or vice-versa, do not have much empirical evidence to reinforce the six-minute criteria.

From anecdotal experience as an instructor and a self-proclaimed member of the "YouTube Generation," I would argue that video production should always aim for a less-is-more approach even if data is inconclusive. In one set of data collected by Guo et al., 2014, this sentiment is reinforced by findings that suggests "the shortest videos [in this study] (0-3 minutes) had the highest engagement rates" and that the mean "drop-off time," or the minute marker when students clicked out of or stopped watching an instruction video, was roughly at the six-minute mark (p. 44). This data does not necessarily test how students respond to the length of a video upon first opening it, another gap that needs conclusive testing to discern,but does suggest that viewer attention spans are exhausted at the six-minute mark.

Application of Findings

Now that each of the four structuring techniques have been contextualized and situated as video production practices worthy of further empirical testing, the following subsections will apply these findings to three different instructional video productions in order to demonstrate transferability between educational contexts. Although most of this research is situated in the context of higher learning, educational video, specifically videos categorized as "edutainment," are an important component of Web 2.0 content utilized by higher education and commercial organizations alike.

First coined in 1973 by Robert Heyman, "edutainment" is a genre of video pedagogy that "implies interactive education and entertainment services," and the intent to bolster viewer engagement to better learning outcomes, a core outcome of this specific genre, aligns with the goals of instructional video and each of the four video structuring techniques outlined in the previous section; Additionally, the rise of Web 2.0 content in the "YouTube Generation" has organically created a demand on the internet for instructional videos that satisfy the genre conventions of "edutainment" (Jeong et al., 2018, p. 77-79). Because the purpose of this capstone is intended to narrow and contextualize best production practices within the field of video pedagogy, however, we will not spend too much time explaining the symbiotic connection between entertaining video production techniques, Web 2.0 content, and the documented rise of self-produced "edutainment" videos in this space. Of course, this does explain why many aspects of "edutainment" align with the desire to increase engagement and learning outcomes in video pedagogy theory; but, for the purposes of this research, it should be viewed as a justification for transferring video production into professional writing contexts that seek to create more engaging educational videos for their audiences.

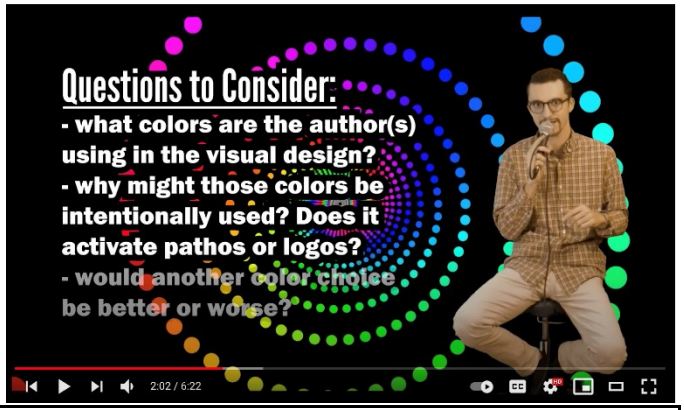
With that in mind, these four specific production techniques will be implemented in three different types of instructional video productions: a green screen video lesson for a higher education ENGL 1101 class, a "Khan-style"[3] video for a non-profit organization that reformats long-form professional writing content into a short instructional video, and a "coffee brew guide" for a commercial organization attempting to educate their consumers on how to use a specific product. By creating all three videos and discussing how each video implements each of the four structuring techniques, this capstone project will demonstrate the ease of transferability across varying educational video contexts and assist the rationale for further research in the final section(s).

To better exemplify how each video independently utilizes the concepts of duration, segmenting, scripting and/or perspective switching, it is recommended that you watch each video uninterrupted from beginning to end before engaging with its corresponding table breakdown on the following pages. It is quite difficult to describe an entire video production in words alone, so referencing each of the three videos with their corresponding tables will help you, the reader, fully understand how aforementioned video structuring techniques are being put into practice. Additionally, each video's corresponding table breakdown includes time markers for referencing specific instances of scripting, perspective mixing, and segmenting. Duration, on the other hand, is simply the length of the video artifact itself, and that information will be included at the beginning of each table alongside a brief text introduction and contextualization of when and why the video was created. Finally, the scripts for videos that incorporated pre-production scripting will be included in this capstone's appendix for further reference.

[3] "Khan-Style" video production refers to a specific style of animation that involves no on-screen instructor and, instead, is a drawing or text-based animation narrated by the off-screen instructor of the video production. See Hansch et al., 2015, for further elaboration.

Figure 1

Video 1 Thumbnail: "What is Visual Rhetoric?"



Video 1: What is visual rhetoric?

This instructional video was created during my residency as an English 1101 instructor at Kennesaw State University. It was designed to introduce students to the larger concept of visual rhetoric and supplement assigned reading material.

Video Duration: 00:06:22

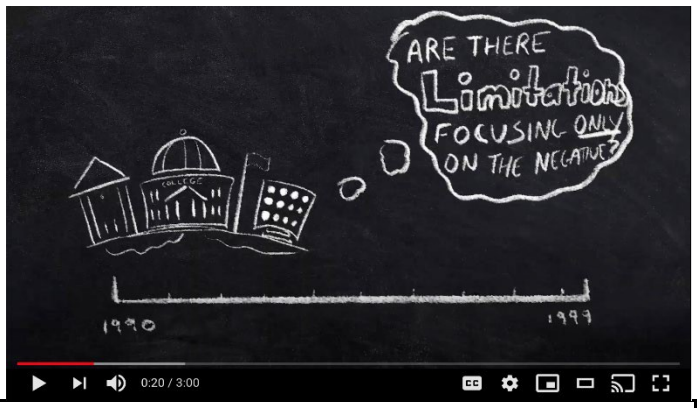
To view this video and see the application of theory for yourself click here or see the References section to locate the video artifact.

Application of video structuring techniques in this instructional video production:

- **Segmenting:** This instructional video is divided into four segments following the "four phase instruction" model introduced by Ou et al., 2019. The four segments are as follows: Phase 1) activation of prior experience (00:00:01-00:50:01); Phase 2) introduction to theoretical framework (00:50:01-00:01:16); Phase 3) introduction of new concepts (00:01:16-00:04:56); and Phase 4.) application of concepts using prior and new experience(s) (00:04:56-00:06:02).
- **Perspective mixing:** Because this video was created using green screen technologies, I argue that "perspective mixing" is accomplished by the alteration of on-screen instructor position. When watching the video, you will notice that the on-screen instructor is never stagnant in place on screen for more than 16 seconds (see 00:01:16-00:04:56 for reference).
- **Scripting:** This video was entirely scripted beforehand with intentional emphasis on stating personal pronouns (like "you" and "we"), as well as a continued effort to "break the fourth wall" by talking to the viewer directly through rhetorical questions (see 00:00:01-00:50:01 for reference). To view the script used to create this video, see Appendix C.

Figure 2

Video 2 Thumbnail: "What is Positive Youth Development?"



Video 2: What is Positive Youth Development?

This instructional video was created for this capstone project in partnership with a non-profit organization, the Center for Sustainable Journalism at Kennesaw State University, with the intention to educate their email subscribers on a new after school education model. Additionally, this video was created without an on-screen instructor using "Khan-style" animation techniques to demonstrate transferability of theory between video styles.

Video Duration: 00:03:00

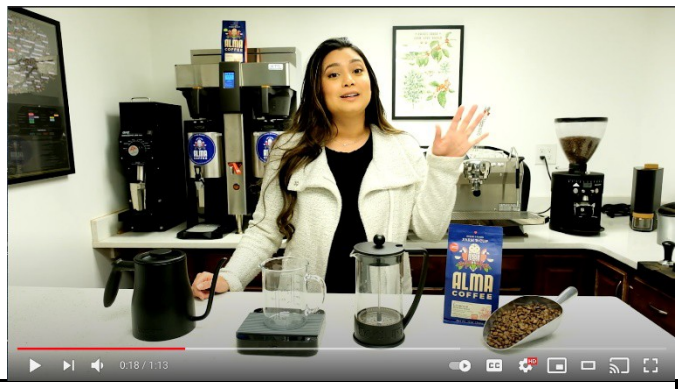
To view this video and see the application of theory for yourself click here or see the References section to locate the video artifact.

Application of video structuring techniques in this instructional video production:

- **Segmenting:** This instructional video is divided into three main segments that all connect to the video's larger educational concept: Segment 1) Introduces past forms of after adolescent after school development programs to give a contrasting example of what doesn't work (00:00:01-00:00:25); Segment 2) Introduces new concepts such as the definition of PYD and the 5 C's (00:00:25-00:02:21); and Segment 3) Overview of new concepts and application of findings (00:02:21-00:03:00).
- **Perspective mixing:** Because this video was created using "Khan-style" animation, I argue that perspective mixing is accomplished by the alteration of multimodal on-screen animations. Animations never take more than 11 seconds of screen time, (see 00:00:25-00:02:21 for reference).
- **Scripting:** This video was entirely scripted beforehand with intentional emphasis on stating personal pronouns (like "let's" and "we"). To view the script used to create this video, see Appendix D.

Figure 3

Video 3 Thumbnail: "How to use a French Press"



Video 3: How to use a French Press

This instructional video was created for Alma Coffee, a commercial organization the author of this project is employed for. It is intended to educate the customers of Alma Coffee on how to use a French Press to brew coffee.

Video Duration: 00:01:13

To view this video and see the application of theory for yourself, click here, or see the References section to locate the video artifact.

Application of video structuring techniques in this instructional video production:

- **Segmenting:** This instructional video is divided into three main segments that all connect to the video's larger educational concept: Segment 1) Introduces the brewing equipment to be discussed (00:00:01-00:00:27); Segment 2) Walk through the steps necessary to successfully brew coffee in a French Press (00:00:27-00:01:06); and Segment 3) End of video sign off (00:01:06-00:01:13).
- **Perspective mixing:** This video accomplishes perspective mixing through the alteration of visual shots accompanied by narrative voiceover in Segment 2. Before and after this point, multimodal charons are added to avoid still shots.
- **Scripting:** This video was not pre scripted, but there was a heavy focus in the production process on using personal pronouns (like "let's" and "we") and encouraging the on-screen instructor to "break the fourth wall" during narration.

Suggestions for Future Research

The final section of this capstone will provide insights and suggestions for future researchers in the field wishing to measure how each of these transferable video structuring techniques influence student engagement and learning outcomes. Based on similar research in the field, these suggestions will be focused on the dissemination of two email surveys that are demographically targeted and intended to gather qualitative data on engagement and learning outcome data before attempting testing on a large scale. Two sample email surveys were created to measure each of the four suggested video production techniques in higher education (see Appendix A) and professional writing contexts (see Appendix B); both surveys are located in the appendix. Ideally, surveys would be complemented with specific video artifacts that contain clear-cut examples of video structuring techniques being applied to an instructional video production.

Small Scale Email Surveys Should be Prioritized Before Large Scale Testing

Many researchers in the field of video pedagogy, namely Hansch et al. and Ou et al., express frustration with the limited contextual selection of large-scale testing results which primarily focus on MOOC data. The main reason future research should prioritize smaller scale qualitative email surveys before scaling up testing to contexts beyond MOOC classrooms, as stated in a rather old report on research practices titled "Conducting Research Surveys Via Email and Web," is that other forms of survey-testing modalities (namely multiple choice) skew towards "answers in interviewer-assisted modes [that] tend to be biased toward socially accepted answers" (Schonlau et al., p. 77). This could be especially true in higher education settings where instructors are self-producing video.

Because research on how specific video structuring techniques is still limited according to Guo et al., 2014, open-ended responses via email surveys could provide the basis for more grounded and regimented survey pools that would be disseminated to larger and more specific demographics. Providing surveys to respondents in both higher education and public contexts could also help illuminate the best direction for future pedagogical research, although finding respondents in higher education is likely more feasible.

Measuring the Effect of Instructor Presence and Video Scripting

One of the most important components of successful video pedagogy seems to be on-screen instructor presence, first introduced through Richard Mayer's personalization principle theory on cognitive learning (p. 252). According to his hypothesis, parasocial connection is amplified when students know the on-screen instructor as their in-person instructor, too. As stated in the Literature Review, empirical evidence suggests that students are also more engaged when they see the on-screen instructor as a familiar "conversational partner" rather than a "lecturer," and Mayer's research suggested that ten out of eleven tests showed higher rates of engagement (p. 253).

This could be measured in an email survey by creating two variations of the same instructional video, one with on-screen instructor presence and one without, and disseminating each variation to different control groups who are responding to the same open-ended question(s). This control-variable technique, or creating two versions of the same video to measure changes between respondents, has been used in other studies that measure specific aspects of viewer engagement within video pedagogy (Laster-Loftus, 2019, p. 4). Like measuring on-screen presence, gauging how pre-scripting versus improvisation in instructional videos could be accomplished with similar testing methods.

Measuring Viewer Engagement With Instructional Video

Following a research method laid out in "How Video Effects Student Engagement," which seemed to yield the most encompassing qualitative and quantitative results of anything found within video pedagogy literature, measuring each of the four video structuring techniques' impact on engagement could be independently assessed by accessing corresponding video analytic data following survey dissemination. Using free analytic tools through YouTube's hosting domain, a surveyor could log participant response time and then, subsequently, measurethat participant's *engagement data* logged during their survey participation time (Guo et al., p. 43). This would reveal some interesting data points that could be immensely beneficial to videopedagogy research on structuring techniques, including measuring specific pause and rewind actions by the student, duration of engagement (to see if the student left the video before finishing), and if/when respondents reference the video while engaging with the survey.

Although it is impossible to discern through analytics alone if a student was physically engaged with the video as it played on their computer or if they had it on in the background while multitasking, the click and duration data is exempt from this limitation as it requires students to be physically engaged for the action to occur. Additionally, as explained in the literature review, researchers should try to avoid conflating engagement with learning outcomes; although both are important to the success of an instructional video, engagement should not be prioritized over learning outcomes and vice versa. Therefore, using YouTube analytics data to measure participant engagement is appropriate for the collection of baseline data before further large-scale testing, and this method allows researchers to focus on open-ended questions within

the survey while separately measuring engagement data without the participant's conscious understanding.

Measuring Learning Outcomes of Instructional Videos

In line with other methodological suggestions from scholars in the field, particularly Fiorella, Guo, and Laster-Lofus, measuring learning outcomes can be accomplished by including a follow-up assessment problem that prompts students to test their knowledge of theinstructional video. Instead of making this multiple choice, the prompt should be left open-ended in order to ascertain if and how students were to answer. This could also be synchronized with engagement data to observe if the participant relied on memory of the video itself or went back to reference specific moments within the video. Both instances can be conclusively tracked by aligning YouTube analytics results and survey submission time

Conclusion

From its genesis, the goal of "Video for All: An Argument Towards Standardization of Video Production Practices and Research" was to gauge which specific video structuring techniques meaningfully impact engagement in educational contexts. By using two methods—secondary research in the form of literature review and analysis and primary research in the form of applying theory to video artifact creation—the project tries to answer three research questions: 1) How could video pedagogy shift student attitudes or engagement with course content in digital learning environments? 2) What benefits and limitations of standardizing and researching video pedagogy are valuable for educators interested in creating video to understand, including educators with limited or no video production experience? 3) In what ways could certain production techniques in video pedagogy applicable to classroom settings transfer to certain professional writing contexts such as non-profit awareness campaignsor online social media marketing?

Admittedly, this capstone was originally intended to be accompanied by an IRB-approved pilot email survey disseminated to former students of English 1101 and 1102 classes inwhich I was an instructor during my graduate teaching residency at Kennesaw State University. This email survey would have measured, if applicable, how student familiarity with the on- screen instructor influenced engagement with instructional video content, a data point often raised by Fiorella and Mayer, 2018. Yet, despite the absence of actual survey materials in this current body of research, I now realize that qualitative focused email surveys in a single classroom environment would not have fully raised a call for further application of research in the field.

Although I think this capstone makes a sound argument for further research and standardization of certain video structuring practices, the methods for ascertaining these two data points are hotly debated amongst scholars in the field. For instance, as mentioned at several points in this research, there is a tendency for scholars of video pedagogy to conflate engagement with learning outcomes. Viewers of instructional videos may be more inherently drawn to production practices like short duration, perspective switching, or even pre-production scripting, but the effects of these variables on learning outcomes is extremely difficult to quantify even for seasoned researchers.

What this capstone does accomplish for the collective field of video pedagogy, however, is its universal argument for more research and interdisciplinary interest amongst video pedagogy scholars and educators within a variety of contexts to attempt their own instructional video productions. As with my own "COVID-19 Apocalypse Video Lecture Series" in the Spring of 2020, there is overwhelming data across video pedagogy literature that suggests students generally respond positively to instructor- created video productions even when those productions are not completely grounded in empirically tested methods. Additionally, I hoped throughout the drafting of these pages that this capstone could serve as an example, or "proof-of-concept," that even four very specific methods could be transferred into a wide range of production styles for instructors with limited or no video production experience.

As for transferability to professional writing contexts, I think this capstone has fully demonstrated how applicable this particular field of pedagogical research can be outside of academic spaces. For instance, I started a career as a Digital Media Manager at Alma Coffee four months before the completion of this capstone where writing and video work are both

daily components of the job. Because of the research I have been undertaking in these pages alone over the last year, I was able to help my employer create a series of "Brew Guides"for their own YouTube channel. These Brew Guides have blossomed into a series of instructional videos intended to entertain and educate Alma's customers on the many, many types of coffee brewing equipment. All four video structuring techniques discussed at length in this capstone—duration, scripting, perspective mixing, and segmenting—became important featuresin the actual production of these videos, and viewers have responded with overwhelming positivity to the series. Outside of coffee industry specific work, this capstone also applied the four video structuring techniques of this capstone to another professional writing context—the non-profit sector. Working with a completely different style of video production called "Khan-style," the research and focus of this capstone was able to be effectively translated to the audience demands of the Center for Sustainable Journalism's email marketing list.

The research on how video production practices can impact engagement and learning outcomes is still far from being quantified in a substantive manner, but it is my hope that this capstone project furthers the call for future researchers to explore necessary methods for quantification. Despite the COVID-19 digital learning forcing many educators to adopt certain aspects of video pedagogy without prior experience or training, I am confident sudden modality shift also sparked many alternative pedagogical approaches for educators across the world. Beyond the current forced digital learning environment at the time of this capstone's completion, I argue that the future of video pedagogy is rife for exploration and exciting research possibilities. From higher education to professional writing contexts, educational video(s) will only continue to grow in pedagogical effectiveness and popularity.

References

Allen, I. E., & Seaman, J. (2013, January). Changing course: Ten years of tracking online education in the United States. 1-47. Retrieved from http://www.onlinelearningsurvey.com/reports/changingcourse.pdf

Allen, I. E., & Seaman, J. (2014). Grade change: Tracking online education in the United States. Babson Survey Research Group.

Alma Coffee. (2021, February 17). How to use a french press | quick tutorial and brew guide [Video file]. Retrieved from https://www.youtube.com/watch?v=PLj7hyyGzps

Ashraf, B. (2009, October). Teaching the Google–eyed YouTube generation. *Education+ Training*, 2252-2262. Association for the advancement of computing in education (AACE).

Boucheix, J. M., Gauthier, P., Fontaine, J. B., & Jaffeux, S. (2018). Mixed camera viewpoints improve learning medical hand procedure from video in nurse training?. Computers in Human Behavior, 89, 418-429.

Bostian, K. (2020, March 17). COVID-19 apocalypse video lecture series | part 1: counterarguments [Video file]. Retrieved from https://www.youtube.com/watch?v=vLqFf4UxYIg&t=48s

Bostian, K. (2020, October 3). What is visual rhetoric? [Video file]. Retrieved from https://www.youtube.com/watch?v=M_4Iha-vNag

Bostian, K. (2021, January 12). What is positive youth development? [Video file]. Retrieved from https://www.youtube.com/watch?v=ostO84KTx10

ChrisFix. (2014, June 17). How to replace a headlight bulb (tips and tricks) [Video file]. Retrieved from https://www.youtube.com/watch?v=HO3IXM3XkUU

de Koning, B. B., Hoogerheide, V., & Boucheix, J. M. (2018). Developments and trends in learning with instructional video. *Computers in Human Behavior*.

Faridah, I., Ratna Sari, F., Wahyuningsih, T., Putri Oganda, F., & Rahardja, U. (2020, October). Effect of digital learning on student motivation during Covid-19. 8th International Conference on Cyber and IT Service Management (CITSM), 1–5. https://doi.org/10.1109/CITSM50537.2020.9268843

Fiorella, L., & Mayer, R. E. (2018). What works and doesn't work with instructional video. 465-470.

Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. The internet and higher education, 2(2-3), 87-105.

Guo, P. J., Kim, J., & Rubin, R. (2014, March). How video production affects student engagement: An empirical study of MOOC videos. In Proceedings of the first ACM conference on Learning@ scale conference, 41-50.

Hansch, A., McConachie, K., Schmidt, P., Hillers, L., Newman, C., & Schildhauer, T. (2015). The role of video in online learning: Findings from the field and critical reflections. Alexander von Humboldt Institut Fur Internet und Gesellschaft.

Harvard University. (2016, July 11). Advanced algorithms (COMPSCI 224), lecture 1 [Video file]. Retrieved from https://www.youtube.com/watch?v=0JUN9aDxVmI

Horton, D., & Richard Wohl, R. (1956). Mass communication and para-social interaction: Observations on intimacy at a distance. Psychiatry, 19(3), 215-229.

Hughes, G. D. (2009). Using videos to bring lecture to the online classroom. College quarterly, 12(1), n1.

Jameson, F. (1987). Reading without interpretation: Post-modernism and the video-text. The Linguistics of Writing: Arguments Between Language and Literature. Ed. Nigel.

Jayaratne, K. S. U., & Moore, G. (2017). Perceptions of college students toward online classes: Implications for teaching online 1. NACTA Journal, 61(4), 304-309.

Jeong, S. B., Lee, J. J., & Kwak, K. T. (2018). Understanding the entertainment values in online educational videos. Journal of Internet Computing and Services, 19(5), 77-87.

Kivel, Mary-Theresa. (2014, April 11). The evolution of the educational film is intimately related to the larger history of educational technology. *The Ohio State University.* Retrieved from https://u.osu.edu/kiveledtech/2014/04/11/hello-world/

Laster-Loftus, A. (2019). The role of instructional videos in psychology students' course success. Journal of Educators Online, 16(2), n2.

Lutkewitte, C. (2012). The first digital native writing instructors and the future multimodal composition classroom. Basic Writing e-Journal, 10(1), 1.

Manner, J. C. (2005). Accommodating diverse learning styles with online course enhancements. journal of interactive instruction development, 17(4).

Mayer, R. E., & Pilegard, C. (2005). Principles for managing essential processing in multimedia learning: Segmenting, pretraining, and modality principles. The Cambridge handbook of multimedia learning, 242-262.

Murray, J. H. (2012). Inventing the medium: principles of interaction design as a cultural practice. Mit Press.

MooMooMath and Science. (2020, October 21). Gravity explained simply [Video file]. Retrieved from https://www.youtube.com/watch?v=uzjA5d0QXv8

Ong, W. J. (1985). Orality and literacy. Routledge.

Ou, C., Goel, A. K., Joyner, D. A., & Haynes, D. F. (2016, April). Designing videos with pedagogical strategies: Online students' perceptions of their effectiveness. In Proceedings of the Third (2016) ACM Conference on Learning@ Scale, 141-144.

Ou, C., Joyner, D., & Goel, A. (2019). Designing and developing video lessons for online learning: A 7-Principle Model. J. Online Learning.

Poquet, O., Lim, L., Mirriahi, N., & Dawson, S. (2018, March). Video and learning: A systematic review (2007-2017). In Proceedings of the 8th International Conference on Learning Analytics and Knowledge, 151-160.

Scagnoli, N. I., Choo, J., & Tian, J. (2019). Students' insights on the use of video lectures in online classes. British Journal of Educational Technology, 50(1), 399-414.

Scagnoli, N. I., McKinney, A., & Moore-Reynen, J. (2015). Video lectures in eLearning. In Handbook of research on innovative technology integration in higher education, 115-134. IGI Global.

Schonlau, M., Fricker, R. D., & Elliott, M. N. (2002). Conducting research surveys via e-mail and the web. 77. RAND Corporation

Shipka, J. (2011). Toward a composition made whole. University of Pittsburgh Press.

Spina-Caza, L., & Booth, P. (2011). Video unbound: Have you vlogged lately? Infusing video technology in the composition classroom. Basic Writing E-Journal, 10(1), 11.

Welch, K. E. (1999). Electric rhetoric: Classical rhetoric, oralism, and a new literacy. Cambridge, MA: MIT Press. 104.

Appendix A

Instructional Video Email Survey Template for Higher Education Contexts

PLEASE READ BEFORE BEGINNING THIS SURVEY:

We thank you for your participation in this pilot survey. All data collected will remain confidential in any publicized or referenced results. Please respond to questions as openly and honestly as possible—your responses could help improve educational videos in the future!

This survey is designed to measure how college students respond to different production techniques in an instructional video lesson. In the following section, you will be prompted to view an instructional video titled "What is Visual Rhetoric?" Please copy and paste the YouTube URL provided at the beginning of either section into a separate window on your web browser to view the section video before engaging with any survey questions. You may reference the video at any time to answer survey questions.

Estimated Time to Completion: 10-15 mins

SECTION 1

VIDEO: "What is Visual Rhetoric?"

About this video: This 00:06:22 instructional video was created using a green screen, laptop & phone camera, and a wired cardioid microphone. It was created and distributed to students as a supplement to an in-class reading.

PLEASE WATCH THE ENTIRE VIDEO BEFORE ANSWERING ANY QUESTIONS

Link to FULL VIDEO: https://www.youtube.com/watch?v=M_4Iha-vNag&t=7s

QUESTIONS:	**RESPONSE/TEXT BOX:**
What, if anything, would you say the "main idea" or "lesson" of this instructional video was? In other words, describe what you think the videowas trying to teach you in a few sentences or less.	

In your own words, what would you say "typography" means and why is it important to Visual Rhetoric?	
After watching this instructional video, how would youdescribe the video's length?	• Not too long or too short, just right • It felt too long • It felt too short • I'm not sure, I didn't really think about it.
On a scale of 1-10, how *informative* would you say this video was?	
On a scale of 1-10, how *entertaining* would you say this video was?	
Did the on-screen graphics, effects, or instructor giving the lesson feel distracting or engaging?	• Distracting • Engaging • Both
Based on your response to the question above, could you explain more about why you felt that way in a few sentences or less?	
How would you describe, in a few sentences or less, your impression of the on-screen instructor for this video?	
As a video lecture, how would you describe the pacing of this video?	
As a video lecture, would you say this video makes sense by itself, or is more information/videos/readings needed for it to make sense?	
If you had to guess, would you say this video was scripted (written and planned before recording) or unscripted (not written or planned beforehand)?	

SECTION 2

Please answer the following questions as openly and honestly as possible. Once you finish, press "submit." You will receive a confirmation email notifying you that your answers have been submitted to the researcher who provided you this survey.

On a scale of 1-10, how would you rate the educational value of videos in learning environments? In other words, how helpful or unhelpful have videos been to you as a learner?	
How frequently would you say videos are used by instructors or teachers in your experience as a student in college?	
If you could narrow it down to just three criteria, what would you say are the top 3 most important aspects of an educational video keep you engaged until the end?	
Have you had, or currently have, any teachers or instructors self-produce *instructional videos* for your class as learning resources for you to use?	
Based on your answer above, what would you say would be *most helpful* for an educator or teacher to consider when creating instructional videos?	

Appendix B

Instructional Video Email Survey Template for Professional Writing Contexts

PLEASE READ BEFORE BEGINNING THIS SURVEY:

We thank you for your participation in this pilot survey. All data collected will remain confidential in any publicized or referenced results. Please respond to questions as openly and honestly as possible—your responses could help improve educational videos in the future!

This survey is designed to measure how viewers respond to different production techniques in an instructional video lesson. In the following section, you will be prompted to view an instructional video titled "What is Positive Youth Development?" Please copy and paste the YouTube URL provided at the beginning of either section into a separate window on your web browser to view the section video before engaging with any survey questions. You may reference the video at any time to answer survey questions.

Estimated Time to Completion: 10-15 mins

SECTION 1

VIDEO: "What is Positive Youth Development?"

About this video: This 00:03:00 instructional video was created for this capstone project in partnership with a non-profit organization, the Center for Sustainable Journalism at Kennesaw State University, with the intention to educate their email subscribers on a new after-school education model. Additionally, this video was created without an on-screen instructor using "Khan-style" animation techniques to demonstrate transferability of theory between video styles.

PLEASE WATCH THE ENTIRE VIDEO BEFORE ANSWERING ANY QUESTIONS

Link to FULL VIDEO: https://www.youtube.com/watch?v=ostO84KTx10

What, if anything, would you say the "main idea" or "lesson" of this instructional video was? In other words, describe what you think the videowas trying to teach you in a few sentences or less.	

In your own words, what would you say "Positive Youth Development" is?	
After watching this video, how would you describe the video's length?	• Not too long or too short, just right • It felt too long • It felt too short • I'm not sure, I didn't really think about it.
On a scale of 1-10, how *informative* would you say this video was?	
On a scale of 1-10, how *entertaining* would you say this video was?	
Did the on-screen graphics, effects, or instructor giving the lesson feel distracting or engaging?	• Distracting • Engaging • Both
Based on your response to the question above, could you explain more about why you felt that way in a few sentences or less?	
How would you describe, in a few sentences of less, your impression of the off-screen narrator for this video?	
As a video intended to inform its audience of a new educational concept, how would you describe the pacing of this video?	
By watching this video alone, would you say this video makes sense by itself, or is more information/videos/readings needed for it to make sense?	
If you had to guess, would you say this video was scripted (written and planned before recording) or unscripted (not written or planned beforehand)	

SECTION 2

Please answer the following questions as openly and honestly as possible. Once you finish, press "submit." You will receive a confirmation email notifying you that your answers have been submitted to the researcher who provided you this survey.

On a scale of 1-10, how would you rate the educational value of animated videos such as this one?	
How frequently would you say you engage with videos that are similar to this on websites like YouTube or TikTok?	
If you could narrow it down to just three criteria, what would you say are the top 3 most important aspects of an educational video that keep you engaged until the end?	

Appendix C

Script used to produce "What is Visual Rhetoric?" Instructional Video

VISUAL RHETORIC

1. TWO IMAGES / MULSTISTABLE PERCEPTION

A multistable image rests in the backdrop behind Prof. Bostian. He appears to fly in from nowhere.

PROF. B
Hey there students. Ever wondered how two complete strangers could come across the same image and see two different things? What you're looking at behind me is one of the more famous examples of multistable perceptive images. Or, aka, an image that, when focusing your brain power hard enough, can carry two entirely different images.
(beat)
Why is this important? Because today we're going to be covering visual rhetoric: the art of analyzing an image for design choices that could influence an audience to think/act a certain way.
(beat)
You might be wondering, how could a f****** picture get met to act or think? Just like duck/rabbit behind me, most pieces of propaganda and/or rhetoric are deeper than they appear on the surface, and just because you don't see multiple things happening at once doesn't mean they aren't. So, sit back, relax, subscribe to the to the channel, and let's dive in to the art of Visual Rhetoric.

2. Visual Rhetoric Definition

Single background, maybe videos.

PROF. B (CONT'D)
The "visual" of visual rhetoric is focused on elements of design in an image. Just like a multistable perceptive images, the audience of a visual rhetorical message might not see EVERYTHING happening at once.
(MORE)

PROF. B (CONT'D)
That's where the "rhetoric" of Visual Rhetoric comes in. Just like Aristotle defined rhetoric as the "art of finding all the available means of persuasion," visual rhetoric applies that same concept to design choices in a visual rhetorical artifact. For the purposes of this video, we're going to covering color, arrangement, typography and image use, but there are SO many more facets of visual rhetoric I don't have time (or frankly money) to cover in this video. So let's start with the first design element, one that you have been prepping for since your first days of Pre-K: Color

3. Color

PROF. B (CONT'D)
Color is exactly what it sounds like. It's how an artifact intentionally uses Yellow, Red, Blue or anything in between to make an audience feel or act a certain way.

(beat)

Color adds depth, salience or even cultural associations to an image. It can cover the simple choice of color from an author to things like contrast and saturation. Take this cellphone advertisement, for example. When the advertiser _____ shows a map of what areas their service covers, they use the color red (left). When they show their competitor, they use the color blue (right). Hm, now why would that be? Is it because we've culturally associated red and blue with temperature? Think about the deeper implications of this message. Their service, red, is hot, while their competitor, blue, is cold. This is a quick example, but when you are analyzing an artifact for visual rhetoric, pay attention to the colors used. What do cultural associations do we have with those colors?

(MORE)

PROF. B (CONT'D)
Would their be incentive to capitalize on those cultural associations?

4. Typography

PROF. B (CONT'D)
Although color is a huge part of a rhetorical artifact, so too is the very font, or typography, an author is using to visually transmit a message. Typography creates a navigational map of information for the audience to follow. It can highlight important keywords or phrases, or add emphasis/heirarchy. It can create temporal flow, chronology or even neutrality, and just like with color, it can be used to elicit cultural associations. Just take this example. I have the same advertisement playing with three different typographies in use. Notice how #1, which is using cursive, seems pretentious. #2, which is using Times New Roman, seems kind of neutral and boring. And #3, which is using a variety of crazy fonts, is a bit crazy and chaotic. Using typography intentionally and tactfully can really assist an author in a rhetorical situation.

5. Image Use

PROF. B (CONT'D)
Let's talk about Image use. When I say this, it can apply to a variety of different facets of visual rhetoric, but for the purposes of this video I want you to focus on how Image use can activate pathos or Logos in an audience. Image use can also divert an Audience's attention away from one aspect of a message onto another--like just right then: were you paying attention to me or these cute kitties running all over the place?
(MORE)

PROF. B (CONT'D)
Leave a comment below and like/subscribe for more green screen lectures and until next time, have a good day!

Appendix D

Script used to produce "What is Positive Youth Development?" Instructional Video

POSITIVE YOUTH DEVELOPMENT

Written by

Kelley Bostian

Based on the research/writing of Stell Simonton

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POSITIVE YOUTH DEVELOPMENT

NARRATOR
In the past, the study of adolescence often focused on the problems of youth--things like teen pregnancy, juvenile delinquency and bad grades. Programs for young people were set up to target these problems.

ANIMATION #1:

Shot of scientist scribbling on notepad, teenagers in background. Series of drawings in close proximity that represent teen pregnancy, juvenile delinquency and bad grades. Crosshairs overlay three drawings; pan backwards to see animation in speech bubble of public speaker. Speech bubble is highlighted in sync with Narrator.

NARRATOR
But, in the 1990s, academics began seeing limitations to programs that focused only on the negative aspects of adolescence. The academic conversation shifted. Instead of focusing on things like teen pregnancy, juvenile delinquency and bad grades, they began looking at how young people developed within their surrounding environments. Out of this shift came a new type of program: Positive Youth Development.

ANIMATION #2:

Shot of timeline 1990-1999. Show academics walking timeline like hiwire, overhead charon shows previous three drawings staying in the past as academics move to future; Animation dissapears. SUPER: Positive Youth Development.

NARRATOR (CONT'D)
Positive Youth Development, or PYD, focuses on the strengths of young people. It engages them with the community by fostering positive relationships, supporting activities that build life skills, and providing opportunities to actually put those skills into practice.

ANIMATION #3: Animation/Super of PYD that follows previous animation. Super takes entire screen. Dissolve.

NARRATOR (CONT'D)
Positive Youth Development seeks to recognize and enhance a young person's strengths. These strengths are called external and internal "assets." External assets are family support, a positive school environment and good peer influences. Internal assets are things like honesty, responsibility, school engagement and self-esteem.

ANIMATION #4: Stick figure w/ backpack. Magnifying glass overlay, transition to SUPER: "Strenghts = Assets." Show one list of External Assets that morph into Internal Assets.

NARRATOR (CONT'D)
So, how do you build young people's assets? We approach this task by considering the five C's: competence, confidence, connection, character and compassion. One way to build **Competence** is to help a young person explore their interests and find what excites them. Connect them with resources as you support thier interests. Build **Confidence** by encouraging young people to try new things. Although this opens the door for failure, mistakes can become teachable moments of self-improvement. Build **Connection** by finding opportunities for a young person to have an independent voice, interact with others and develop their own relationships within a community. Build **Character** by demonstrating your own values while involving young people in decision-making and problem-solving. We believe that by modeling honesty and respect, you can encourage the development of **Compassion**. Express warmth and believe in young people.

ANIMATION #5: Chalk eraser transition. 5 C rotating animation at the top. This, like Animation #3, will be a text animation with still animations that primarily are Supers.

NARRATOR (CONT'D)
And so, with an approach to youth development that focuses on positive development through the 5 C's, you can help young people build on their strengths. You can recognize external assets like family support, a positive school environment and good peer influences. You can foster assets like honesty, responsibility, school engagement and self esteem. A Positive Youth Development approach helps young people develop multiple strengths that will benefit them over a lifetime.

ANIMATION #6:

Kelley Bostian

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Education

Master of Arts in Professional Writing, Kennesaw State University — **2021**
Applied Writing (MA)

- Primary Concentration(s) in copywriting, technical writing, screenwriting and social media writing.
- Secondary Concentration(s) in composition pedagogy
- Thesis Title: "Instructional Video Pedagogy: Best Practices for Instructors and Employers"
- Cumulative GPA: 4.0
- Graduate Teaching Assistant (2018 - 2020)
- Graduate Research Assistant (2019)
- President of KSU's Rhetoric Society (2019 - 2020)

Bachelor of Arts in English, University of Tennessee at Chattanooga — **2017**
Rhetoric & Professional Writing (BA)

- Primary Concentration(s) in Grant, Technical, Magazine, Argumentative and Non-Fiction/Journalistic Writing
- Minor in Journalism and Communication Studies
- Cumulative GPA: 3.4
- Dean's List (2014 - 2017)
- Sigma Tau Delta member (2016 - 2017)

Experience

Country Club Prep • Atlanta, Georgia — **2019**
Copywriter, Intern/Freelance Writer

- Composed long-form blog posts for CCP's company website, social media outlets and email newsletter recipients
- Created e-commerce product copy for CCP's male and female clotheslines which circumvented SEO restraints
- Monitored CCP's social media presence and analytics; developed various strategies for prompting engagement
- Coordinated social media content and delivery with other interns

Six-Page Scripts Podcast • Atlanta, Georgia — **2020 - 2021**
Audio Editor & Co-Host, Part-Time

- Plan, research, record and edit weekly episodes for the Six-Page Scripts podcast (1000+ monthly listeners)
- Produce weekly episode copy and social media teasers for the podcast, altering approaches and delivery to best match SEO requirements of target audience.

Nexus Reviews • Atlanta, Georgia — **2018 - 2019**
Research Assistant, Freelance

- Conducted genre-specific research on educational textbooks and their market viability
- Worked independently to meet tight, often spontaneous deadlines
- Published book reviews during peak seasons that satisfied SEO requirements

The Pulse Magazine • Chattanooga, Tennessee — **2017**
Editorial Assistant, Intern/Freelance Writer

- Composed and published two to four weekly art, music or biographic focused magazine articles
- Organized weekly local events calendars for both online and print audiences
- Observed, reported and presented on The Pulse's publication practices and in-house style conventions

Chattanooga School for the Arts & Sciences • Chattanooga, Tennessee — **2017**
Grant Writer, Intern

- Collaborated with CSAS' school library to research, draft and submit grant proposals
- Surveyed CSAS students to collect internal data that supported the library's grant request(s)
- Researched and compared various applicable funding grants to select the most pertinent for CSAS school library

Off-Trail Originals • Atlanta, Georgia — **2020 - 2021**
Videographer/Producer, Freelance

- Plan, record and produce "field recording" music videos for Georgia's premiere acoustic talent
- Utilize pertinent on-site video production equipment, as well as Adobe Premiere and After Effects for post production editing and color grading
- Collaborate with acoustic talent to plan, execute and maintain effective social media delivery strategies

visit **kelley-j-bostian.com** for writing, editing and content creation samples & bylines: