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DISRUPTING THE WORKLOAD MONOTONY: EXPLORING THE IMPACT OF VIDEO ESSAYS ON GEN-Z STUDENT ENGAGEMENT AND SATISFACTION IN ONLINE COURSES

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Abstract
This study explores the effectiveness of intermittently replacing traditional synthesis essays with student-authored video essays in online courses to alleviate student workload monotony while maintaining academic rigor. With the increasing prevalence of multimedia consumption among Generation Z students, particularly through short-form videos (SFVs) (Zhang, Hazarika, Chen, & Shi, 2023), this research investigates whether engaging students in both the consumption and production of video content enhances learning outcomes and course satisfaction. Using a quasi-experimental design, 83 undergraduate students enrolled in an online Educational Psychology course were randomly assigned to one of three groups: no video, video consumer, and video consumer & producer. The results suggest that students in the video consumer & producer group exhibited significantly higher post-test scores compared to those in the other groups, indicating that active video production promotes deeper learning. Furthermore, students in the video essay group reported higher assignment satisfaction levels as compared to students writing traditional essays, supporting the idea that multimedia assignments can increase engagement and motivation in online learning environments (Hughes & Roblyer, 2023). These findings underscore the potential of video essays as a dynamic tool for fostering intellectual engagement, enhancing retention, and reducing the online course overload associated with repetitive written assignments. The study highlights the need for educators to adapt course designs to better align with the multiliteracies of today's students.
Keywords: Generation, Video, Essay, Online, Literacy, Media, LMS, Education, Learning, Workload.

I. Introduction

College students today are spending more time using technologies, both in the classroom and for personal use. This trend includes increased consumption of short-form video (SFV), a type of video typically 60 seconds or shorter, which recent studies suggest may be more addictive than traditional social media platforms (David & Roberts, 2024). As technology use grows among students, instructors have also integrated more digital tools into their courses, particularly in online learning environments. For instance, 86% of students report using artificial intelligence (AI) in their studies, with 54% using it on a daily or weekly basis (Kelly, 2024). Despite these technological advancements, many students remain digitally adept primarily in personal pursuits, while their skills for academic tasks, such as independent data analysis and problem-solving, are underdeveloped (Mentzer, Frydenberg, & Patterson, 2024).

Instructors, on the other hand, have expanded the use of technologies to deliver course content and often require students to engage with multiple applications for assignments. However, today's undergraduate students, many of whom belong to Generation Z, may struggle to manage this increasingly complex and digital landscape. Our current undergraduate Gen Z, digital native "Zoomer" students, were exposed to Zoom and learning management systems (LMSs) as high school students during the COVID-19 pandemic. While they are often considered tech-savvy, this does not necessarily equate to technological literacy (Supiano, 2024). Furthermore, as technology-based distractions like SFVs and social media proliferate, students' ability to focus on traditional academic tasks, such as reading and completing assignments, has diminished. Studies show that assigned reading completion has dropped significantly, with fewer than 20% of students completing required

reading (Zakrajsek & Nilson, 2023), and many students report disengagement with homework (Supiano, 2024).

These challenges may reflect a shift in how Gen Z students interact with information. The rise of new media has fractured students' attention, leading to reduced engagement with traditional forms of academic learning (Leu & Kinzer, 2000; Sang, 2017). This new type of engagement, referred to as "new literacies," involves the skills necessary to navigate and interact with the digital information landscape effectively. However, there is a growing concern that the instructional design in higher education, particularly in LMSs, is not evolving at the same pace, or in a manner that will address students' new literacies. This disconnect may be contributing to the overload students experience, especially in online courses, where excessive content paired with constant digital multitasking across multiple classes hinders students' ability to effectively process the workload, sometimes leading to increased online dropout rates (Arnold & Moshchenko, 2009; Beer, 2019).

The problem of overload is compounded by course design issues, with instructors often inundating students with a multitude of tasks, such as discussions, quizzes, and essays, across multiple platforms. "Student workload is not a one-dimensional phenomenon, rather it is made up of mental demand, physical demand, temporal demand, effort, performance, and frustration" (Kochu, Beena, & Sony, 2022, p. 3). Given the increasing prevalence of SFV consumption among students, this study seeks to explore an alternative approach to course assignments, student-created video essays, as a way to reduce repetitive, lengthy writing assignments, while maintaining student engagement. This approach is particularly timely in the context of undergraduate students' increasing use of visual media, which may offer new opportunities for demonstrating learning and intellectual engagement.

The purpose of this research was to examine whether replacing traditional synthesis papers with student-authored video essays in online courses can reduce repetitious overload while maintaining academic rigor. Specifically, this study seeks to answer the following research questions:

RQ1: Will students who produce video essays related to course content achieve higher posttest scores than students who write traditional synthesis essays?

RQ2: Will students report higher levels of satisfaction in modules that emphasize both the consumption and production of visual media compared to those that rely primarily on text-based media?

II. Theoretical Framework and Literature Review

Video is college students' medium of choice, with viewership spanning many social media sites. At present YouTube reigns as their most frequented go-to source, with 95% of those ages 18 to 29 saying they use the platform, although other social media platforms use such as Twitter, Facebook, and TikTok trail only slightly (Auxier & Anderson, 2021). Since much of their five-plus hours of daily social media consumption, primarily SFVs, is for entertainment purposes (David & Roberts, 2024; Rothwell, 2023), this research examined the use of video production as an alternative means for students to demonstrate their learning gains while increasing coursework enthusiasm amidst repetitious and sometimes over-burdened workloads across multiple classes. Digital storytelling projects allow individuals to become active participants in their productions, using personal stories as powerful tools for connection, learning, reflection, and communication (Halter & Levin, 2014). The study is grounded in a framework whereby generational interests, novel task inclusion, and multimodal composition can coalesce in assigned coursework to foster deeper learning and more meaningful engagement.

Many students are intrinsically motivated to learn about subjects they are passionate about, and they will often work hard even with less reward (Slavin, 2021). Additionally, students who see current or future personal relevance may be motivated by the long-term benefits of their learning. The joy of the subject, familiarity with the technologies or assignment procedures, or the promise of future rewards will increase their motivation. Equally important, students learn in a qualitatively better way when they work on material

that interests them rather than when the material bores them (Dewey, 1913). Unfortunately, the over-assignment of seemingly repetitive tasks across multiple online courses can take the joy out of any liked activity. A threaded discussion multiplied five times in the same week, for example, will take a toll on students as the threads blend in their minds. Deliberate practice (DP) occurs when an individual intentionally repeats an activity to improve performance, a behavior generally necessary to achieve high levels of performance (Campitelli & Gobet, 2011). In the multiple online LMS course environment designed by separate instructors, however, these repetitious assignments are not planned in concert to build on one another. Courses that incorporate a greater extent and variety of interactive methods receive significantly higher student evaluations and perceived teaching clarity (Beimel, Tsoury, & Barnett-Itzhaki, 2024). The value of varied repetition, the number of times you can repeat an activity focus without boring the learners, is important in teaching course design (Staats & Gino, 2012; Timmis, 2016). Periodically including multimedia composition assignments, as a replacement rather than an added supplement, is one way to maintain variety while reducing repetition. "Students who learn by creating their own products with technologies such as word processing and multimedia report higher engagement in learning and a greater sense of pride in their achievements" (Hughes & Roblyer, 2023, p. 74).

Mayer's cognitive theory of multimedia learning aligns with the dual coding theory (Clark & Paivio, 1991), which posits that humans have separate, but interconnected, cognitive systems for processing visual and verbal information. The video production process, especially when assigned as a research-based video essay, steeps students in both the visual and verbal cognitive information. Learning is enhanced when both systems are activated simultaneously, such as when visual and auditory information are presented together (Mayer, 1997; Mayer & Moreno, 2002). However, research suggests that overloading these channels with information that is too complex or lengthy can hinder learning (Tabbers, Martens, & Van Merrienboer, 2004). When designed appropriately, educational videos are engaging and captivating, which helps maintain the viewer's attention.

Students can be passive consumers and fail to maximize the benefits of instructor provided videos. Instead of having students learn from videos provided by the instructor, it is argued that they should be asked to be active producers of their own videos to engage in the learning process more deeply (Greene & Crespi, 2012; Hoban & Shepherd, 2013; Holtzblatt & Tschakert, 2010). With an emphasis on learner-researched content, the concept of using student produced videos as an instructional strategy promotes active, applied learning (Lee & McLoughlin, 2007; Morgan, 2013). Active learning is important to the student-centered learning process, providing them opportunities to research, reflect, evaluate, analyze, synthesize and communicate information through meaningful activities (Bonwell & Eison, 1991; Fink, 2003). As an active learning strategy, student video production projects require students to do research, synthesize course content, and present the information, which have potential to lead to multiple academic benefits (Norton & Hathaway, 2010; Siegle, 2009), including student motivation, multiliteracy, problem-solving, and content knowledge expansion Morgan (2013). Aside from harmonizing technology, pedagogy, and content under one umbrella (Hoefer & Swan, 2005), student video production projects are similar to synthesis essay writing projects, but offer a novel approach to break up the monotony of mind numbing repetitive assignments.

III. Methods

Participants

A quasi-experimental research method was used in this study. Participants included 83 undergraduate students enrolled in a required online Educational Psychology course at a large Midwest public university in the United States. The students enrolled in the course were pre-service K-12 teachers from multiple subject specialties. Students were between 18-34 years old, 83% female, 15% male, 2% gender neutral and primarily second-year students. The course was taught asynchronously through the D2L LMS, organized by weekly modules.

Procedures

Each participant in the study was randomly assigned to one of three treatment groups: (1) No video; (2) Video consumer (original module, no treatment); and (3) Video consumer and producer. For the no video group the consumable videos of the original module were replaced with written scripts of the videos.

The course was comprised of 16-weekly modules, each designed to cover a specific categorical topic each week. In any given week students typically had readings, instructor video lectures, instructor typed narratives, third-party media to view, and various engagement activities: threaded discussions, quizzes, module synthesis papers, and various other short responses.

For the purpose of the study one of the modules, which focused on the foundations of Cognitive Theories of Learning, was replicated two times. Each of the two replicas had some modifications specifically for the study treatments to make them different from the original, including the swapping of the video engagement type and culminating module activity (see Table 1).

Module Condition	Culminating Assignment	Group Size
(1) No video	3-5-page synthesis paper	27
(2) Video consumer (original module)	3-5-page synthesis paper	28
(3) Video consumer & producer	3-5-minute video essay	28

Table 1: Groups by module condition and culminating assignment

Earlier in the term, prior to beginning the study module, all students in the course had a video tutorial on APA synthesis paper writing basics and video essay composition basics, including how to use Adobe Express (video). They received pointers on visual design (e.g., using images, motion video, and voice rather than text to show instead of tell). Students then had an opportunity to create an original 2-3-minute video compilation for a threaded discussion post response pertaining to a peer-reviewed research article. They had to be visually present speaking 15 seconds at the beginning and 15 seconds at the end ("book ends"), with all the remainder their voice and visual media. Later, in the study module, Group 3 participants were required to be visually present speaking in their video essays three or four times, but not all the way through. Their voices had to be present all the way through except for one or two short b-roll clip "guests" for support. Adobe Stock Images and applicable b-roll motion video sources were made available under "Creative Commons" for transformative use.

Data Collection

All students in the course took an online pre-test, which included a number of multiple-choice, multi-select, and matching questions. The questions were about concepts covered in the engagement materials, and written at various cognitive taxonomical levels. The purpose of the test was to obtain baseline knowledge of the concepts covered in the module. There were no significant differences in pre-test scores among the three groups.

After completion of the culminating assignments (synthesis paper or video essay), participants complete a post-test. The questions were reorganized and modified enough to minimize reliability issues. After completing each module, participants completed a satisfaction perception questionnaire, which was based on a ten-point scale. The synthesis essays and video essays were evaluated by the instructor for quality and content using a rubric. All data were analyzed using SPSS.

Results

A one-way analysis of variance (ANOVA) was conducted to examine the differences between pretest and posttest scores (dependent variables) across three independent variable treatment groups: No Video (Group 1), Video Consumers (Group 2), and Video Consumers and Producers (Group 3). Table 2 shows the means and standard deviations of learning outcomes of students in different video use groups. The results revealed a significant difference among the group change in scores means, $F(2, 80) = 32.42$, $p < .001$, indicating that at least one group differed from the others. Levene's test for equality of variances was

not significant (p = .08), suggesting that variances across the groups are homogeneous. Follow-up pairwise comparisons using a post-hoc Tukey revealed that Group 3 (M = 37.5), shown in Table 3, had a significantly higher mean difference compared to both Group 1 (M = 18.5), p < .001, and Group 2 (M = 26.5), p < .001. Additionally, Group 2 had a significantly higher mean difference than Group 1, p = .05. These results suggest that participants in Group 3 (Video Consumers and Producers) showed the greatest improvement in their scores, while Group 1 (No Video) showed the least.

Video Use Group	N	M	SD
(1) No Video	27	18.5	5.50
(2) Video Consumer	28	26.5	6.15
(3) Video Consumer & Producer	28	37.5	7.00

Table 2: Descriptive statistics by treatment group (post-gain)

Video Use Groups	(2) Video Consumer	(3) Video Consumer & Producer
(1) No Video	8.00 (0.05)*	19.00 (0.000)**
(2) Video Consumer		11.00 (0.000)**

* The mean difference is significant at the 0.05 level
** The mean difference is significant at the <0.01 level

Table 3: Pairwise differences between groups on post-gain learning outcome

An additional one-way ANOVA was conducted to examine the effect of video use type on course module satisfaction, based on a 0–10-point scale. The descriptive statistics are noted in Table 4. There was a significant effect of video use type on satisfaction, F(2,80) = 50.83, p<. 001, indicating that at least one group differed from the others. As indicated in Table 5, post-hoc Tukey comparisons revealed that the No Video group (M = 4.0, SD = 1.2) had significantly lower satisfaction scores than both the Video Consumer group (M = 6.2, SD = 1.3), p = .032, and the Video Consumer & Producer group (M = 8.4, SD = 1.0), p < .001. Additionally, the Video Consumer & Producer group had significantly higher satisfaction scores than the Video Consumer group, p = .046. These results suggest that video use, particularly both consuming and producing videos, is associated with higher satisfaction with the course module. Analysis of the synthesis essay and video essay rubrics did not reveal any statistically significant variances across groups.

Video Use Group	N	M	SD
(1) No Video	27	4.0	1.20
(2) Video Consumer	28	6.2	1.30
(3) Video Consumer & Producer	28	8.4	1.00

Table 4: Descriptive statistics of module satisfaction by group

Video Use Groups	(2) Video Consumer	(3) Video Consumer & Producer
(1) No Video	-2.20 (0.032)*	-4.40 (0.000)**
(2) Video Consumer		-2.20 (0.046)*

The mean difference is significant at the <0.05 level
The mean difference is significant at the <0.01 level
Table 5: Pairwise differences between video use groups on module satisfaction

IV. Discussion and Implications

The results of this study demonstrate the potential of video essays as an effective alternative to traditional synthesis papers, providing valuable insights into student engagement and learning outcomes in online courses. The findings reveal that students in the Video Consumer & Producer group experienced the highest post-test score improvements, highlighting the significant learning gains associated with engaging in both consuming and producing video content. This outcome aligns with previous research on multimedia learning, which suggests that combining visual and verbal information helps activate dual cognitive channels, enhancing retention and understanding (Mayer, 1997; Mayer & Moreno, 2002). The active learning component of video production, where students

synthesize and present content in a multimedia format, offers a more engaging and dynamic learning experience compared to passive text-based assignments, potentially leading to deeper learning outcomes (Bonwell Eison, 1991; Morgan, 2013). This finding suggests that incorporating video essays as part of the online course design can foster greater intellectual engagement and better academic performance.

Moreover, the increased satisfaction reported by students in the Video Consumer & Producer group reflects a broader trend toward greater enjoyment and motivation when using multimedia tools. As highlighted by Hughes and Roblyer (2023), student engagement and pride in their work are enhanced when they create content that integrates technology. The satisfaction results in this study support this notion, showing that video-based assignments can break the monotony of repetitive coursework and offer students a more varied and interactive learning experience. By utilizing technologies familiar to Gen Z students, instructors may be able to not only sustain, but also amplify student motivation and engagement in online learning environments (Leu & Kinzer, 2000). This finding underscores the importance of adapting course designs to reflect the changing preferences and skills of today's students, who are increasingly accustomed to multimodal communication in their personal lives (Rothwell, 2023).

The implications of this research are multifaceted. First, educators should consider incorporating video essays into their teaching strategies as a way to provide students with an alternative means to demonstrate knowledge and skills while reducing the cognitive overload caused by repetitive written assignments. As digital natives, Gen Z students may benefit from assignments that align with their media consumption habits, thus fostering a more authentic and relevant learning experience. Additionally, these findings suggest that multimedia assignments can be a valuable pedagogical tool for increasing student engagement and satisfaction in online courses. However, instructors must ensure that the production process does not overwhelm students, as complex or lengthy video projects could negate the positive effects of video-based learning (Tabbers, Martens, & Van Merrienboer, 2004). Future studies should explore optimal video essay designs and their impact on a broader range of academic subjects, helping to refine and standardize best practices for integrating multimedia learning into online curricula.

Video essays present a promising alternative to traditional essays, offering significant benefits in terms of student engagement, learning outcomes, and overall course satisfaction. By embracing multimedia as a central component of assessment, instructors can cater to the evolving needs of Gen Z students while promoting deeper learning and maintaining academic rigor. As technology continues to shape educational environments, incorporating innovative tools like video essays will likely play a critical role in enhancing student engagement and success.

Limitations and Future Work

A key limitation of this study is its quasi-experimental design, which lacks full randomization, potentially introducing selection bias in group assignments. Students' pre-existing skills with video production may have influenced outcomes, limiting the findings' generalizability. Additionally, the sample was drawn from a single course at one university, predominantly female, which may not represent the broader population. The small sample size in each group also limits statistical power, potentially underestimating smaller effects. Lastly, the study’s focus on a single module and pre/post-test assessments may not fully capture the long-term impact of video essays on learning. Future research should explore diverse populations, broader randomization, and multiple modules for a more comprehensive assessment of multimedia assignments.

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