Student-prepared videos in undergraduate instruction

John M. Parente, Jr.
Mercyhurst University

Yohannes Haile
Penn State Erie - The Behrend College

ABSTRACT

Generation Z has graduated and in some cases is still in college according to Seemiller and Grace (2016), who define the generation range from 1995-2010. A defining characteristic of Generation Z is that they grew up with technology. They are so involved or comfortable with technology that they "expect" it. Parents lament the lack of reading and the enormous dependence on video, gaming, and visual methods of delivery. As a result, the delivery of a traditional course using lecture, quizzes, and tests is not perceived as a "good" course by students. It also likely that retention will be greater using non-traditional methods. This manuscript describes our use of student-prepared videos for a variety of student assignments.

Keywords: student-prepared videos, business education, Generation Z, teaching styles

INTRODUCTION

The development and implementation of student-prepared video presentations in a variety of undergraduate courses at Mercyhurst University is discussed in this manuscript. First, the authors introduce Generation Z students and their characteristics. Then the structure of the class, the format of the assignment, the rationale for the use of video presentations, and the goals for the assignment are discussed. The manuscript concludes with an assessment rubric, student comments, benefits of the assignment, lessons learned and future research direction.

BACKGROUND

The Cone of Learning (Anderson, 2012) shown in Figure 1 in the Appendix is introduced as it relates to generational differences and learning retention. Generation Z students are those students born in 1992 or later. This generation wants to have experiences. They value experiences as opposed to material things. They particularly like experiences in which they can be involved in making decisions and being involved in the outcomes (Merriman, 2020).

As shown in the learning pyramid (Anderson, 2012), the retention rates of the teaching styles is quite variable, ranging from 10% to 90%. Given that the current college student population is substantially composed of Generation Z, we need to match the preferences in learning styles with retention levels in the Cone of Learning.

The authors have used student video presentations in a variety of undergraduate classes to the satisfaction of both students and instructor. Dale's Cone of Learning (Anderson, 2012) illustrates the highest retentions in the lowest two sections of the cone with 70% and 90% retention respectively. Giving a talk and doing a dramatic presentation are both components of student prepared video presentations. Therefore, the assumption is that the level of retention is quite high for this instructional pedagogy and is particularly well-matched with Generation Z students.

The nature of involvement is shown on the right side of the Cone of Learning in Figure 1 in the Appendix, passive involvement includes verbal receiving and visual receiving. A synonym of "passive" is inactive ("Definition of passive," 2020). The preferences of Generation Z students are better suited to active involvement identified in the lower two bands of the nature of involvement on the right side of Figure 1 in the Appendix– receiving/participating and doing.

Furthermore, the Cognitive Theory of Multimedia Learning (CTML) provides additional support for augmenting F2F learning with video assignments to enhance learning outcomes of F2F learning (Mayer, 2005). Further research by Akçayır, Akçayır, Pektaş, & Ocak (2016), Chiang, Yang, & Hwang (2014), and Sommerauer & Müller (2014) report the efficacy of multimedia tools improving student learning outcomes.

Initially, this instructor used traditional assignments for classes – a paper and a presentation. These assignments were group assignments intended to provide an opportunity for collaboration and teamwork as well as the opportunity to apply the content of the class. However, a sense of complacency came over the groups. Certain students appeared to lack the enthusiasm that this instructor hoped to see within the teams. Others seemed satisfied if their section of the presentation was adequate while exhibiting little concern for the overall project. The division of labor within the groups was seriously skewed. Several students provided minimal input, while others did a bulk of the work – providing the example of free-riders.

This instructor decided to try video presentations instead of face-to-face class presentations. A student-prepared video presentation would meet all or most of the five

descriptors of the active involvement or what we SAY and what we both SAY and DO. Further, a NACE study (Williams, 2015) identified the top ten skills employers want in graduates. These include:

1. Ability to work in a team structure (Dee, Henkin, & Singleton, 2006)
2. Ability to make decisions and solve problems (Martin, Fleming, Ferkins, Wiersma, & Coll, 2010)
3. Ability to communicate verbally with people inside and outside an organization (Brown & Morrissey, 2004).
4. Ability to plan, organize and prioritize work (Peck et al., 2016)
5. Ability to obtain and process information (Samokish, Bosenko, Pryimakov, & Biletskaya, 2017)
6. Ability to analyze quantitative data (Getachew, 2018)
7. Technical knowledge related to the job (Warnock & Mohammadi-Aragh, 2016)
8. Proficiency with computer software programs
9. Ability to create and/or edit written reports
10. Ability to sell and influence others (Comer, Dubinsky, Shao, Chang, & Schetzsle, 2014)

As we review these ten skills with respect to group video presentations, the assignment provides the opportunity to develop skills in eight of ten of the skills desired by employers. Student-prepared video presentations do not address #6, the ability to analyze quantitative data, and #9, the ability to create and/or edit written reports.

RATIONALE FOR USE OF VIDEOS

We are using student-prepared videos for two main purposes. The first is skill development as noted in the prior section. The second is as preparation for the workplace. Business school educations should provide technological competence as well as application of technology to improve students' abilities to perform more efficiently and effectively in their future careers (Chonko, 1993).

STRUCTURE OF CLASS

This instructor used student-prepared videos in place of face-to-face presentations in each of three classes. In the Introduction to Sport Business class, student teams were to identify a current topic in the sport industry. Teams were asked to describe an overview of the particular area, while identifying challenges and concerns for the future.

In the Legal Issues of Sport class, each group was given a specific case. The task was to 'teach' the case to the rest of the class using video form. This assignment allowed for creative role-playing, while the discussion portion illustrated how the case affects the sport industry.

Finally, in the Sport in Society class, teams were asked to present a potential scenario the group may encounter. For example, the wrestling coach at your university says that Title IX discriminates against men because it requires the use of a quota system in school sports. It is unfair, he says, because it forces athletic departments to drop men's sports just for the cause of gender equity. The team must touch on key sociological concepts discussed in the text and class to solve the issue.

Each of these assignments provided an incremental level of learning for the students. Role play, discussion of various outcomes, and interpretation of the various levels of engagement on the Cone of Learning (Anderson, 2012).

ASSESSMENT OF THE ASSIGNMENT

The assignment was graded using a rubric that measured both an individual score as well as a team score. The video rubric is in the Appendix as Table 1. The composite scoresheet is shown as Table 2 in the Appendix.

DISCUSSION AND LESSONS LEARNED

Students were less likely to be complacent when doing the videos. The actual finished product seemed to ensure each student would be more invested. Students who loafed in the past were now more likely to at least be around while the project was being completed. The nature of the video allowed for scripts and for the students to practice before filming.

BENEFITS

-
- Enhanced Learning – Students learn more than just the material they are presenting. Their oral presentation skills and overall communication skills are enhanced. The projects are based on industry situations, so there is growth on the practical side with career-related skills (Gilboy, Heinerichs, & Pazzaglia, 2015).
- Further research with clearly defined multiple learning outcomes and supported with empirical evidence is needed to understand the role of educational technology on learning (Clarke III, Flaherty, & Mottner, 2001)
- Practice makes perfect – In traditional in-class presentations, students may or not practice together. The video presentation allows the students to practice/present until it is perfect.
- Let's meet up after class – Video presentations force everyone to meet up outside of class.
- Introverted students – Are able to practice until it is accurate. Creatively may hide behind characters or designs. The role playing allows for some introverted and autistic students to come out of their shell.
- What are they doing? – The teams are visible on campus. Anytime you get a camera rolling, students become aware that something is going on. In certain circles, the videos have dominated conversations.
- Can I have fun at school? – Are students are having a blast doing the videos. I have former students that are excited to make cameos in the next groups' videos.
- Digital Footprint – The students and the program are creating a brand that people are able to see on line.
- Recruit and Retain – future students are able to see our competitive advantage. A main factor in how our students and program are considered better than their counterparts. This different cutting edge technique keeps students engaged and more likely to remain in the program.

I
P

FUTURE MODIFICATIONS AND RESEARCH

In a future study, the authors will compare the outcomes of face-to-face classroom presentations with the video presentation to develop a research stream in the use of this pedagogy. Survey research will help to identify difference by GPA, major, and year in college. The survey will consist of various outcomes and motivations as it pertains to explicit and tacit knowledge transfer and moderation of intensity of learning. The focus here are the modalities and dimensions of knowledge transfer that is time and path dependent covering both tacit and explicit knowledge transfer within the framework of teacher and instructor interactions (Garud & Nayyar, 1994).

REFERENCES

Akçayır, M., Akçayır, G., Pektaş, H. M., & Ocak, M. A. (2016). Augmented reality in science laboratories: The effects of augmented reality on university students' laboratory skills and attitudes toward science laboratories. *Computers in Human Behavior, 57*, 334-342.

Anderson, J. (2012). Edgar Dale's cone of learning. Retrieved from http://www.edutechie.ws/2007/10/09/cone-of-experience-media/

Brown, T., & Morrissey, L. (2004). The effectiveness of verbal self-guidance as a transfer of training intervention: Its impact on presentation performance, self efficacy and anxiety. *Innovations in Education and Teaching International, 41*(3), 255-271.

Chiang, T. H. C., Yang, S. J., & Hwang, G. J. (2014). An augmented reality-based mobile learning system to improve students' learning achievements and motivations in natural science inquiry activities. *Educational Technology & Society, 17*(4), 352-365.

Chonko, L. B. (1993). Business school education: Some thoughts and recommendations. *Marketing Education Review, 3*(1).

Clarke III, I., Flaherty, T. B., & Mottner, S. (2001). Student perceptions of educational technology tools. *Journal of Marketing Education - J Market Educ, 23*(3), 169-177.

Comer, L. B., Dubinsky, A. J., Shao, C., Chang, C. C., & Schetzsle, S. (2014). A new approach for teaching customer personality types in the personal selling course *Journal of Higher Education Theory and Practice, 14*(2), 11.

Dee, J. R., Henkin, A. B., & Singleton, C. A. (2006). Organizational commitment of teachers in urban schools: Examining the effects of team structures. *Urban Education, 41*(6), 603-627.

Definition of passive. (2020). online.

Garud, R., & Nayyar, P. R. (1994). Transformative capacity: Continual structuring by intertemporal technology transfer. *Strategic management journal, 15*(5), 365-385.

Getachew, T. (2018). Quantitative skill retention and curriculum integration in a typical business school in the United States–A student perspective. *The International Journal of Management Education,, 16*(2), 292-308.

Gilboy, M. B., Heinerichs, S., & Pazzaglia, G. (2015). Enhancing student engagement using the flipped classroom. *Journal of nutrition education and behavior, 47*(1), 109-111.

Martin, A., Fleming, J., Ferkins, L., Wiersma, C., & Coll, R. K. (2010). *Facilitating and integrating learning within sport studies cooperative education: Exploring the pedagogies employed by students, academics and workplace supervisors*.

Mayer, R. E. (Ed.) (2005). *Cognitive theory of multimedia learning*: Cambridge University Press.

Merriman, M. (2020). How contradictions define Generation Z.

Peck, A., Hall, D., Cramp, C., Lawhead, J., Fehring, K., & Simpson, T. (2016). The co-curricular connection: The impact of experiences beyond the classroom on soft skills. . *NACE Journal, 76*(3), 30.

Samokish, I., Bosenko, A., Pryimakov, O., & Biletskaya, V. (2017). Monitoring system of functional ability of university students in the process of physical education. *Central European Journal of Sport Sciences and Medicine, 17*, 73-78.

Seemiller, C., & Grace, M. (2017). Generation Z goes to college: An opportunity to reflect on contemporary traditional college students. *Journal of College and Character, 18*(3), 221-223. doi:10.1080/2194587X.2017.1338583

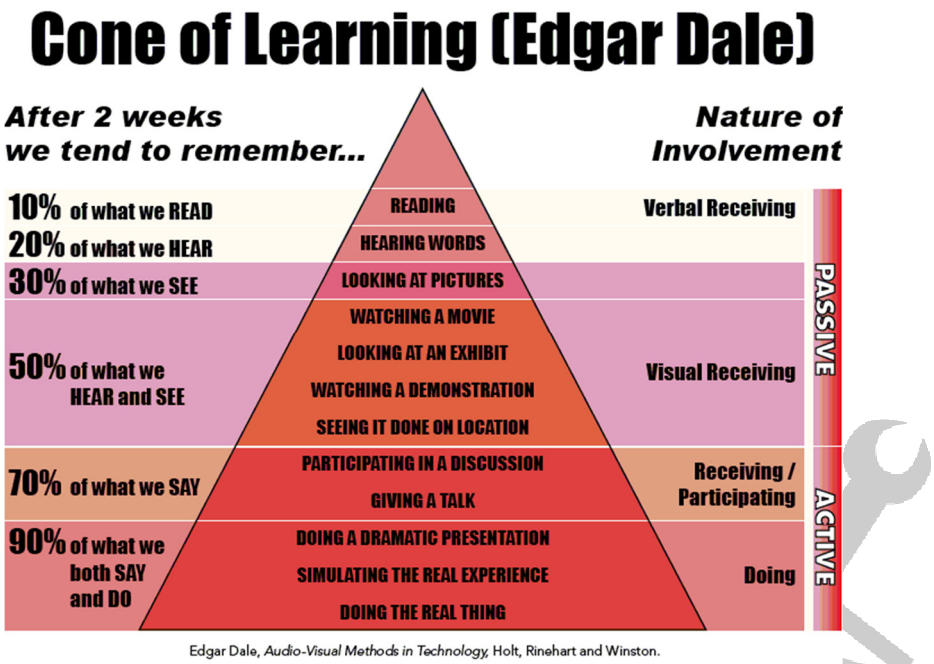
Sommerauer, P., & Müller, O. (2014). Augmented reality in informal learning environments: A field experiment in a mathematics exhibition. *Computers & Education, 79*, 59-68.

Warnock, J. N., & Mohammadi-Aragh, M. J. (2016). Case study: use of problem-based learning to develop students' technical and professional skills. *European Journal of Engineering Education, 41*(2), 142-153.

Williams, T. (2015). Job outlook study reveals the top 10 skills employers want in college grads. *GoodCall.* Retrieved from https://www.goodcall.com/news/what-skills-do-employers-want-in-college-graduates-01169/

APPENDIX

Figure 1



Edgar Dale, *Audio-Visual Methods in Technology*, Holt, Rinehart and Winston.

Table 1 Video Rubric

	Unsatisfactory (1 point)	Satisfactory (2 points)	Proficient (3 points)	Exemplary (4 points)	Pts
Video 15%	Complete disregard to production of the video.	The production value was acceptable. Many video errors	The production value was good. There were a few errors	The production value was great. There were no errors.	
Content 15%	Didn't make connections. Not much discussed related to the case.	Half of the material was relevant. Some information was relevant, while some failed to make a connection.	Content was mostly relevant to the case. The group made connections, but left some gaps.	Content was relevant to the case. The group fully made connections.	
Dissemination 20%	Information was not clear and concise. Trouble understanding how elements connected.	Information presented was somewhat clear & concise. Moderately informed.	Information presented was mostly clear and concise. Mostly informed on material	Information presented was clear & concise. Extremely informed on the material presented.	
Presentation 20%	Not engaged. Not professional or fluid. Not appropriate dress and language	Moderately engaged. Somewhat professional & fluid Somewhat appropriate dress and language	Engaged. Mostly professional and fluid. Mostly appropriate dress & language	Extremely engaged. Professional and fluid. Appropriate dress and language	
Group Dynamics 10%	The group clearly struggled to work together.	The group seemed to struggle together, which lead me to question the process. Were they not prepared, or not work well together?	Group seemed to work well together. Minor issues. Appears individual ideas and talents were considered.	Group works well together. Appears to be a perfect blend of ideas and talents of each of the members.	
Creativity 10%	No Creativity	Mildly Creative	Creative	Extremely Creative	
Q&A 10%	Didn't understand material. Unsatisfactory answers	Understood the material. Satisfactory answers	Mostly expert. Good answers.	Clearly expert in their area. Great answers to questions.	

Strengths: Weaknesses:

Student-prepared videos

Table 2 SCORESHEET

	Unsatisfactory (1 point)	Satisfactory (2 points)	Proficient (3 points)	Exemplary (4 points)	Score
Video					
Content					
Dissemination					
Presentation					
Group Dynamics					
Creativity					
Q&A					