INTERACTIVE MASS LECTURING: THE USE OF ANIMATED VIDEOS TO ENHANCE ACTIVE LEARNING IN BUSINESS ETHICS SUBJECT

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Abstract

A common challenge shared by faculties teaching business ethics in mass lecture settings is how to engage students and promote active learning. Multimedia learning includes watching and listening to a narrated animation followed by meaningful discussion and debate is a powerful medium for channeling cognitive learning. This study aimed to explore the use of two-dimensional animated videos with simulated ethics scenarios as a teaching and learning strategy. The study was conducted in an "Introduction to Ethics" class for freshmen at a Business school in Hong Kong. The survey instrument used in this study was a post-lecture questionnaire comprised of 18 statements. 106 valid responses, at a response rate of 35%, were received. The results provided empirical evidence that animated instructional videos enhanced students' learning experience, including problem-solving ability, critical thinking skills, and a mind-set for personal development. In addition, students were actively engaged in the mass lecture through the tutor's facilitation of discussion and reflection opportunities using the Learning Management System. These findings deepen our current understanding of the pedagogical merits of animated videos to improve students' active learning motives. This study provides further insights into adopting animation technologies for a simulated learning environment.

Keywords: Active learning, Animated videos, Business ethics, Freshmen, Generation Z, Mass lecture, Multi-media, Simulated learning environment.

1 INTRODUCTION

The advancement of technology opens up numerous possibilities for teaching and learning in higher education. Multimedia learning is increasingly used by faculties to engage Generation Z students who are digital natives. The science of learning suggested that humans possess separate channels for processing visual and verbal material. Using relevant and meaningful content that attends to learners' dual channels enhances deep learning [1]. In particular, when the content is complex, abstract, and distant such as business ethics. Business ethics is defined as the "study of business situations, activities, and decisions where issues of right and wrong are addressed" [2]. Many everyday business activities involve the maintenance of basic ethical standards such as honesty and trustworthiness. Therefore, ethics education is no longer prominent only among final-year or postgraduate students entering the business world. Instead, this complex yet essential knowledge should be scaffolded progressively from as early as year one study. Ultimately, these freshmen will be groomed to become the ethical leader that can uphold morally right standards and help build a better world in the future.

Given the rationale behind this, a business school in Hong Kong commenced incorporating ethics topics as part of a core subject in the curriculum for all first-year students. Due to a large number of students taking the core subject in a lecture hall, it is imperative to develop an effective teaching and learning strategy to ameliorate the adverse effects of the didactic approach in a traditional classroom such as disengagement on the subject content and less individualized attention or feedback from the lecturer.

In a learning environment, the information processing theory suggested that learners begin to process information through their receptors (e.g., eyes and ears) when they receive stimulus (e.g., visuals, voice, and music) [3]. To help students who are Generation Z that prefer instant feedback, interactive class, and the use of multi-media presentation [4], animated videos can serve as the stimulus to register their senses and help them to store messages (i.e., subject content) in both short-term and long-term memory for easy retrieval in the future. Animation is defined as "the use of moving objects that are drawn or simulated [5]. Animated graphics are found to improve learning among high-school students [6], [7]. Combining audio messages with tailored graphics or artificial images, animated videos can be meaningfully different from other forms of multimedia instruction [8]. Previous studies evidenced that multimedia videos have been used for a variety of purposes in higher education, including delivering instructions [9], [10], [11], sharing viewpoints and discussions [11], [12], [13], providing peer feedback

and self-reflection [14]. The pedagogical benefits include enhanced student engagement [6], [7], [11] and the ability to apply knowledge for problem-solving [15], [16].

As ethics is essential knowledge and one of the program learning outcomes in the four years of study, students will learn more topics in an in-depth manner as years go by. Therefore, this study is a pilot run of the use of animated videos to enhance students' interest in the topics. The results of this study will provide implications for improving and developing more video cases to achieve active learning in mass lecturing.

2   METHODOLOGY

2.1 Study setting

This pilot study was conducted in Hong Kong in the context of a compulsory 2-hour lecture on "Introduction to Ethics". This introductory course was delivered to 300 first-year students who enrolled in the Bachelor of Business Administration (BBA) Program. Because of the large number of students in the cohort, the students were divided into two groups attending class at a lecture hall with a capacity of 180 seats. Despite the size of the teaching venue and the limited class time to cover all required concepts, animated instructional videos were adopted as the teaching and learning strategy.

2.2 Development of animated instructional videos

The first concept in learning ethics is to help students aware of and be able to identify unethical issues in the workplace. To prepare students to take up internships in their second and third year of study, they should learn personal and professional integrity and be able to make appropriate decisions when facing an ethical dilemma in the workplace. The theory of identical elements proposed that students can maximize the likelihood of transfer of learning on the condition that the problem-solving tasks are like those that will be encountered [3]. Therefore, cartoon characters were conceptualized with a few main casts for the videos. These characters mimic students' positions as interns or fresh graduates in a simulated real-world setting termed as ethics scenarios in this paper.

The production stage of the animated videos commenced in May 2022. The process began with the development of 2-dimensional cartoon characters and scriptwriting, followed by storyboarding in accordance with the pedagogical needs of the freshmen [17]. Voice-overs with background music were recorded by professional actors. Dual coding theory indicates that human process information through two systems – visually and aurally [8]. Hence, subtitles in the English language were incorporated into the videos. These visual and verbal material are the core elements that make multimedia learning work [1]. Discussion questions were carefully crafted for each ethics scenario. In the end, a series of three animated videos on personal and professional ethics, rights, and duties of consumers and employees were produced. Each video lasted between 3 to 4 minutes long. Teaching notes covering the topics of conflict of interest, supplier's code of conduct, ethical policy, and responsible marketing communications were developed.

2.3 Delivery of animated instructional videos

The animated videos were used during class time in conjunction with the institution's Learning Management System, Blackboard, to enhance interaction between teachers and students as well as among the peer groups in the lecture hall.

At the beginning of the class, students were formed into groups of four to six students. The lecturer played the animated videos that showed an ethics scenario and the discussion questions at the end. A sample of discussion questions is shown in Figure 1 below.

Figure 1. Sample questions for group discussion

Discussion Question 1 (6 mins)

In your opinion, who is/are wrong in this situation?

What is the ethical dilemma faced by Angel and Samantha?

Form 4-6 students a group, post your groups comments (and student IDs) in this forum:

(Expected 100+ words)

To ensure that all students followed the content for subsequent discussion, Figure 2 shows a recap of the characters in the video and the ethics scenario.

Figure 2. Summary of the characters and ethical dilemma in the first video

Characters in the Video 1

- Angel (Lady in Blue): Works in HR Department
- Samantha: (Lady in Red): Assigned to Purchasing Department
- Jason:
  - Samantha's Supervisor
- Mr. Jones
  - Foreigner / Potential Wine Supplier
- Dilemma:
  - Samantha is surprised at how the supplier agreement was arranged, and suspicious about the vendor relationship in terms of the conflict of interest found.

The approach of think-pair-share in form of face-to-face discussion and sharing on Blackboard was conducted. 10 minutes were allocated for this session. Students were encouraged to actively discuss the ethical dilemma and consolidate their viewpoints. Each group was required to submit their discussion summary on the Discussion Board. (see Figures 3 – 4).

Figure 3. Discussion summary of video question 1 (Group 1)
[Note: students' personal information is masked]

Thread: About video1

Select: All None

Message Actions   Expand All   Collapse All

1 Post(s) in this Thread   0 Unread   0 Unread Replies to Me

Thread 76 of 81

**About video1**

Group members:

Comments

2. First, there are something wrong in the business transaction with Mr. Jones (Wine supplier) and Jason (Supervisor). Since there are no conversation about the supplier agreement, Mr. Jones just give 10 tickets of rugby games to Jason and then Jason just sign the supplier contract without double check and discussion. There are no policy and procedures in place, even we have reasonable doubts about deliberate bribery. As Mr. Jones pass the contract to Jason immediately after giving tickets to Jason. Second, there are something wrong in Sanmantha accept the expensive gifts, sell the tickets online and deceive the boss. As the tickets are given by the boss, not her own. According to a code of conduct of the company, employees only accept gifts worth a maximum of HKD500.

3. The ethical dilemma faced by Angel is between friendship and honesty. Since the HR department has an obligation to make sure the followings are in place: guidelines for a suppliers' code of conduct, policy on hospitality and gifts, an ethics hotline for anonymous reporting, etc. It is difficult for Angel to choose whether Angel accompany Samantha to sell the tickets or she should report it to her supervisor in the HR department in view of the to-be-launched HR policies and ethics hotline the following Monday. The ethical dilemma faced by Samantha is between honesty and compassion for her parents. Iti s difficult for Samantha to choose that she knows that Jason and Mr. Jones are not right in doing business and she chose not to be honest to Jason or the company out of her compassion for her parents and Samantha's intention to sell the tickets to the online buyer in exchange for money to buy cancer drugs for her father. these action are not good.

Reply

Figure 4. Discussion summary of video question 1 (Group 2)
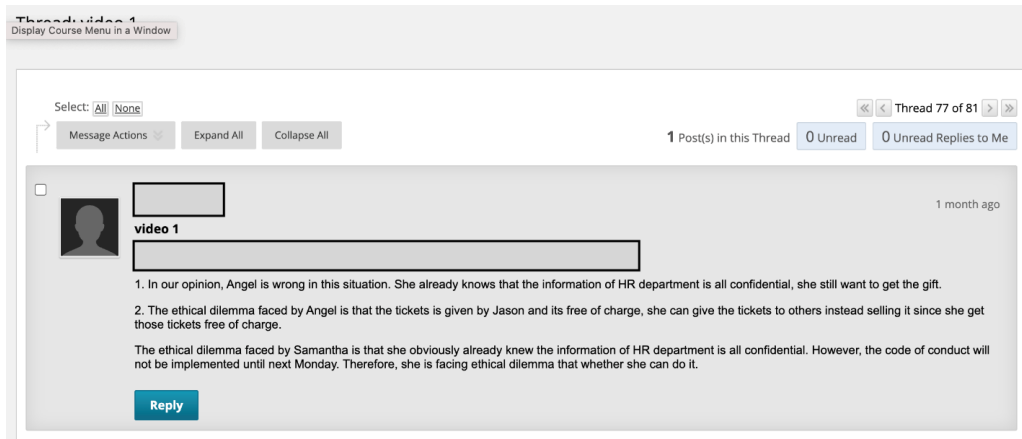
The interactive small group discussion allowed all students to participate and served as a warm-up exercise for the subsequent debate among different groups. After the small group discussion, the lecturer invited a group to stand and explain its discussion summary to the class. All students were then encouraged to respond, leading to a lively debate. Following a 20-minute "mass debate", the lecturer provided a debriefing on the discussion topic. The lesson plan included a break time and a second video on another ethics topic was played and discussed.

3   RESULTS

Reaction outcomes were considered relevant for evaluating the adoption of animated videos in this pilot study. Reactions is useful for measuring learner's satisfaction and potentially use to improve design and delivery of the animated videos in class [3]. Hence, the evaluation in the form of a post-lecture survey was conducted immediately after the lecture. The self-administered survey contained 18 items, divided into two parts – lecture design (items 1-12) and lecturer's performance (items 13-18). A total of 106 students completed the post-lecture survey; at a valid response rate of 35%.

Generally, the students responded positively to all items, with the majority of respondents (>94.3%) slightly agreeing, agreeing, or strongly agreeing with all 18 items. Examples of these items include, "*Overall speaking, I have a very positive evaluation of this lecture.*" (item 12), "*The design of this lecture was very good*" (item 1), "*There was much peer interaction amongst the students in this lecture*" (item 3), "*There was much interaction between the lecturer and the students in this lecture*" (item 4), "*This lecture is helpful to my personal development.*" (item 7), "*The lecturer used different methods to encourage students to learn.*" (item 14), and "*The lecturer was able to effectively take care of all students.*" (item 17). The positive results indicate that the students were very satisfied with the lecture design and the lecturer's performance. All 18 items of the survey can be found in Appendix 1.

4   CONCLUSIONS

Based on the positive responses above, the study provides implications that the use of animated videos for in-class discussion and debate is an effective intervention to channel students' cognitive processing of learning. All in all, students learning experiences in this study can be categorized into three dimensions. They are (a) advancement in communication and interpersonal skills which were enhanced through multiple interactivity opportunities; (b) improvement in critical thinking and problem-solving skills to handle ethical dilemmas; and (c) understanding of the importance of moral competence and personal development for business students. These initial findings deepen our current understanding of the pedagogical merits of animated videos to motivate students to learn abstract, complex content in a mass lecture hall setting. Qualitative interviews will be conducted to gauge more in-depth understanding of the success factors. This study provides further insights into adopting animation technologies for active learning.

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Appendix 1. Results of the survey questions

#	Question	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree		Total
1	The design of this lecture was very good.	0.93%	1	1.87%	2	2.80%	3	14.02%	15	35.51%	38	43.93%	47	106
2	The classroom atmosphere of this lecture was very pleasant.	0.93%	1	1.87%	2	2.80%	3	14.95%	16	37.38%	40	42.06%	45	106
3	There was much peer interaction amongst the students in this lecture.	0.93%	1	1.87%	2	2.80%	3	22.43%	24	31.78%	34	39.25%	42	106
4	There was much interaction between the lecturer and the students in this lecture.	0.93%	1	2.80%	3	1.87%	2	20.56%	22	28.97%	31	43.93%	47	106
5	There was much student participation in this lecture.	0.00%	0	2.80%	3	0.93%	1	20.56%	22	34.58%	37	40.19%	43	106
6	There were many opportunities for reflection in this lecture.	0.00%	0	0.93%	1	2.80%	3	21.50%	23	36.45%	39	37.38%	40	106
7	This lecture is helpful to my personal development.	0.00%	0	1.87%	2	1.87%	2	20.56%	22	31.78%	34	42.99%	46	106
8	This lecture has improved my problem-solving ability.	0.00%	0	1.87%	2	0.93%	1	27.10%	29	28.97%	31	40.19%	43	106
9	This lecture has improved my understanding of the importance of attributes of successful leaders (e.g., critical thinking, moral competence, law abidance etc.).	0.00%	0	1.87%	2	0.00%	0	19.63%	21	31.78%	34	45.79%	49	106

10	This lecture has improved my interpersonal communication skills.	0.00%	0	0.93%	1	0.93%	1	27.10%	29	31.78%	34	37.38%	40	106
11	This lecture has improved my critical thinking.	0.00%	0	0.93%	1	2.80%	3	23.36%	25	30.84%	33	41.12%	44	106
12	Overall speaking, I have a very positive evaluation of this lecture.	0.00%	0	0.93%	1	1.87%	2	16.82%	18	32.71%	35	46.73%	50	106
13	The lecturer had a good mastery of the lecture material.	0.00%	0	0.93%	1	2.80%	3	12.15%	13	38.32%	41	44.86%	48	106
14	The lecturer used different methods to encourage students to learn.	0.00%	0	0.93%	1	1.87%	2	18.69%	20	30.84%	33	46.73%	50	106
15	The lecturer was able to promote an atmosphere of mutual respect in the class.	0.00%	0	0.93%	1	0.93%	1	14.02%	15	34.58%	37	48.60%	52	106
16	The lecturer was able to help students understand the knowledge covered in the lecture.	0.00%	0	0.93%	1	0.93%	1	13.08%	14	37.38%	40	46.73%	50	106
17	The lecturer was able to effectively take care of all students.	0.00%	0	1.87%	2	2.80%	3	17.76%	19	32.71%	35	43.93%	47	106
18	Overall speaking, I have a very positive evaluation of the lecturer in this lecture.	0.00%	0	0.93%	1	0.00%	0	14.95%	16	35.51%	38	47.66%	51	106