

# Promotion of Technological Social Responsibilities and Academic Integrity through Video-Based Learning in a Leadership Course

**Daniel T.L. SHEK <sup>1</sup>, Betty MOK <sup>1</sup>, Tingyin WONG <sup>1</sup>**

<sup>1</sup> Department of Applied Social Sciences, The Hong Kong Polytechnic University, Hong Kong, China

## Abstract

With the advance of information technology, there is an urgent need to enhance undergraduates' technological social responsibilities and academic integrity. In the present study, we developed ten videos on technological social responsibilities and academic integrity, which were incorporated into a leadership course at a university in Hong Kong. Adopting a flipped classroom approach, students were required to watch the videos and participate in class activities. A subjective outcome evaluation scale was used to evaluate students' perceptions of the videos (N = 1,748). Results showed that students had positive views of video-based learning, including the perceived benefits on enhancing their technological social responsibilities and academic integrity. The findings suggest that video-based learning is a promising tool to promote students' technological responsibilities and academic integrity.

**Keywords:** Video-based learning, leadership education, technological social responsibilities, positive youth development, pedagogical innovation

**Correspondence:** Daniel T.L. Shek, PhD, FHKPS, BBS, SBS, JP, Associate Vice President (Undergraduate Programme), Chair Professor of Applied Social Sciences and Li and Fung Professor in Service Leadership Education, Department of Applied Social Sciences, The Hong Kong Polytechnic University, Hung Hom, Hong Kong, PR China. Email: daniel.shek@polyu.edu.hk

## 1. Introduction

In Hong Kong, many undergraduates suffer from mental health and developmental issues, but few undergraduate courses have attempted to enhance students' mental health and prevent related problems. Catalano (2004) pointed out that the Positive Youth Development (PYD) approach could help nurture students' capabilities and minimise students' mental health problems. Thus, our leadership course, "Tomorrow's Leaders", was developed based on Catalano's 15 PYD constructs to promote undergraduates' holistic development and

well-being (Shek et al., 2024; Shek & Li, 2025).

Online teaching has been increasingly used to facilitate students’ learning, with different interactive pedagogies employed in the higher education sector. For instance, virtual learning and video-based learning were widely used (Shek et al., 2023). However, the virtual learning approach was being challenged as teachers need lots of preparation time and advanced technology to facilitate students’ learning (Pope, 2018). Instead, video-based learning was highly accepted because it could help learners learn at their own pace and is easier for educators to prepare teaching materials (Shek et al., 2023).

Besides, as educational technology is continuously evolving, more students use Artificial Intelligence (AI) to complete their assignments in recent years. Students used ChatGPT to summarise or paraphrase their work and seldom examined the policy of using generative AI before submitting their assessments (Yeo, 2023). This becomes a major threat to higher education as students’ learning effectiveness and academic integrity are being questioned. Therefore, educating undergraduate students to use AI properly and enhance their technological responsibilities is essential for their holistic development. Using video-based learning could help students learn the guidelines at their own pace, which also provides a channel for students to understand their technological responsibility of using AI.

**1.1 Research Gaps**

There are few undergraduate courses that adopt video-based learning in promoting technological social responsibilities and academic integrity in students, particularly in the Chinese context. Few evaluation studies have been conducted to understand the effectiveness of using video-based teaching. In this research, we developed 10 videos to promote technological social responsibilities and academic integrity in university students (see Table 1).

**Table 1.** Ten videos on technological social responsibilities and academic integrity developed in the current project

| Video Topic  | Video Title                                         | Description                                                                                                                                                                                                                             |
|--------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Introduction | Video 1: Service Economy and Technology Enhancement | This introductory video discusses the positive benefits of technology to efficient task completion, its application in the service economy, and its integration into university education and students’ personal and professional life. |

| <b>Video Topic</b>                     | <b>Video Title</b>                                                                       | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Self-understanding and self-management | Video 2: Accomplishing Lifelong Learning in a Technological World                        | This video presents a story of a university student who is trying to learn more about the application of AI technology to her future profession by asking for help from a librarian, her classmates, and her professor.                                                                                                                                                                                                                                                                             |
| Cognitive competence                   | Video 3: False Information and Copyright Issues                                          | This video presents a story of a university student using AI tools to search for information for his group project. However, without verifying the information, the student faces the risk of violating academic integrity.                                                                                                                                                                                                                                                                         |
| Social-emotional competence            | Video 4: Lost in the Virtual World                                                       | This video presents a story of a university student feeling very devastated after breaking up with his girlfriend. He resorts to playing online games. But it soon results in addiction and deteriorates physical and mental health. This video aims at raising students' awareness of the risk of being trapped in the "virtual world".                                                                                                                                                            |
| Resilience                             | Video 5: Physical Activity and Stress-Coping                                             | The video begins with a dialogue between two university students about their academic stress. One of them suggests the use of mobile phone applications, such as "7-minute workout" and mindfulness apps, to improve their physical and mental health. The video also introduces activity trackers that could monitor users' daily activities and physical responses. This video aims at demonstrating how technology can serve as a valuable resource for mental health support and stress coping. |
| Spirituality                           | Video 6: Digital Serenity and Navigating the Intersection of AI and Spiritual Well-being | This video begins with a dialogue between two university students about their exam pressure. One of them tries to help the other student by introducing three AI applications—AI-driven meditation and mindfulness apps, AI-powered virtual communities, and AI-guided virtual retreats—that could help them manage stress and explore deeper spiritual experiences. This video shows that proper use of AI applications could enhance the richness of human experiences.                           |
| Morality                               | Video 7: Academic Integrity of PolyU Students When Using GenAI                           | This is a whiteboard animation video that introduces the university's stance on the use of generative AI and related guidelines for students and provides practical suggestions on using generative AI tools in a responsible, ethical, and effective manner.                                                                                                                                                                                                                                       |

| Video Topic             | Video Title                                                          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cultural competence     | Video 8: Benefit of Technology to Mankind                            | The video begins with three animated characters discussing the benefits of technological advancements in transport and communication, including high-speed trains, 5G technology, and e-commerce. The rapid development of technology has enabled people from various backgrounds to participate in the global marketplace, promoting economic growth and cultural exchange. However, it is equally important for students to understand the drawbacks of being overly dependent on technology, such as the risk related to hacking and excessive Internet use. |
| Effective communication | Video 9: Case Study on Effective Communication                       | This video presents a story about a group of university students involved in a cyberbullying incident. The story demonstrates how individuals could use AI technology to create fake pictures and spread rumours, bringing negative consequences to interpersonal relationships and group morale.                                                                                                                                                                                                                                                               |
| Team building           | Video 10: Building a Better Tomorrow through Ethics, Teamwork and AI | The Hong Kong Government has proposed three data stewardship values, including “be respectful,” “be beneficial,” and “be fair,” which guide organisations and individuals in the development and use of AI. The video illustrates these values through a case of data misuse in a health technology company.                                                                                                                                                                                                                                                    |

## 2. Methodology

In the second semester of the 2024/25 academic year, 1,748 undergraduate students were enrolled in the “Tomorrow’s Leaders” course at the Hong Kong Polytechnic University, which is a leadership subject in the General University Requirements (GUR) for all students at the university. 96% of the participants were between 16 and 26 years old. Between 1,005 and 1,309 students completed their evaluation of each of the 10 videos in a voluntary manner (as shown in Table 2). The study has obtained research ethical approval from the institutional review board. All participants have consented to taking part in this study.

Students who registered for the “Tomorrow’s Leaders” course were invited to watch one video before or after lectures (from Lecture 1 to 11, except Lecture 8) to gain awareness and knowledge on technological social responsibilities and academic integrity in a voluntary manner. After watching each video, students were invited to complete an evaluation questionnaire to measure their satisfaction and perception towards the video in a voluntary manner.

We have developed a 19-item evaluation scale to evaluate the quality and teaching and learning effectiveness of instructional videos (Noble & Smith, 2015). This scale consists of five subscales: satisfaction with the content of the

video (5 items), implementation or use of the video (4 items), effectiveness of the video (6 items), overall satisfaction with the video (2 items), and overall satisfaction with the lecture (2 items). A six-point Likert scale was applied in each item (“1” represents “strongly disagree” and “6” indicates “strongly agree”). At the end of the semester, the survey data for the 10 videos was compiled and analysed aggregately.

### 3. Results and Discussion

Results showed that participants generally responded positively to the items in the survey, showing students’ positive subjective evaluation of the 10 videos. Items in the survey received positive responses from at least 76.42% of the respondents (“slightly agree” to “strongly agree” to each item; see Table 2). This finding demonstrated that students were generally satisfied with the content, implementation and teaching effectiveness of the videos, and the lectures.

Some examples are as follows:

For the item “the content of the video is stimulating” (Item 5), the average positive response ranged from 91.43% to 95.44% across the 10 videos. The perceived benefits of helping students reflect on the topic (Item 14) ranged from 90.96% to 95.91%. The subscale “overall satisfaction with the video” (Items 16 and 17) got high positive response rates (minimum = 85.46%, maximum = 96.61%, average = 93.74%). In this subscale, the item such as “overall speaking, I am satisfied with the video” had a mean score of 4.97 and an average positive response rate of 95.01% across the 10 videos. The subscale “overall satisfaction with the lecture” (Item 18) received the highest average positive response rates (minimum = 94.12%, maximum = 96.70%, average = 95.35%). For the item “on the whole, I am very satisfied with this lecture” (Item 19), the mean score was 4.98, and the average positive response rate was 95.53% across the 10 videos.

Furthermore, the subscale “content of the video” (Items 1 to 5) also received high positive response rates (minimum = 85.14%, maximum = 97.41%, average = 94.35%). For example, Item 3 “the video is easy to understand” had a mean score of 5.06 and a 95.92% average positive response rate across the 10 videos. Another subscale “effectiveness of the video” (Items 10 to 15) got high positive response rates as well (minimum = 88.21%, maximum = 97.71%, average = 94.47%). For instance, Item 11 “the video has enabled me to understand related concepts” received a mean score of 4.98 and an average positive response rate of 95.64% across the 10 videos. Results from these two subscales show students’ positive appraisal of the content and teaching effectiveness of the 10 videos.

Moreover, the subscale “implementation or use of the video” (Items 6 to 9) got positive response rates among the five subscales (minimum = 76.42%, maximum = 96.34%, average = 90.51%). For example, the item “the video-based activity enhanced my interaction with classmates” received a mean score of 4.70 and an average positive response rate of 86.63% across the 10 videos. Additionally, the items related to students’ perceived benefits received high positive response rates. For instance, Item 10 “the video-based activity has enabled me to apply the theories in real life cases” received a positive response rate ranging from 88.68% to 96.26%. Also, another perceived benefit, Item 15 “the video can benefit my development”, got high positive rates as well. The response rate ranged from 91.27% to 96.26%. The findings indicated that the students derived benefits from watching the 10 videos.

#### **4. Implications**

For practical implications, this study showed that video-based teaching could be an effective teaching method to promote positive youth development, as revealed by the subjective outcome evaluation findings. The results suggest that video-based teaching is a promising tool to nurture positive youth development in university students in the higher education context (Shek & Li, 2025). As AI is commonly used by undergraduates, it is essential to adopt a new teaching pedagogy to facilitate students’ learning. This study demonstrated students’ positive perceptions of using AI after watching the videos. Therefore, this study suggested using video-based learning to promote positive youth development, which could enhance their technological social responsibilities and academic integrity.

In terms of evaluation, this study showed the usefulness of using subjective outcome evaluation to evaluate the teaching and learning effectiveness of instructional videos in higher education. Validated tools are seldom used to evaluate the effectiveness of video-based learning. Subjective outcome evaluation is only commonly used in understanding students’ perception towards an intervention (Yu et al., 2022). Thus, this study supported the use of a subjective outcome evaluation scale as a tool to assess the quality of video-based learning.

To conclude, the present study showed that video-based learning is a useful pedagogy to facilitate students’ learning of technological social responsibilities and academic integrity. Subjective outcome evaluation was also shown to be an effective methodology to examine students’ perceptions towards video-based learning. However, more evidence is essential to understand how video-based learning could help educate students to use AI properly.

## Ethical Declaration Statement

The project has been approved by the Institutional Review Board (or its Delegate) at Hong Kong Polytechnic University (Reference Number: HSEARS20230907002).

## Generative AI Policy

The authors have not used any generative AI tool during the preparation of this work.

## References

- Catalano, R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *The Annals of the American Academy of Political and Social Science*, 591(1), 98–124. <https://doi.org/10.1177/0002716203260102>
- Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence-Based Nursing*, 18(2), 34–35. <https://doi.org/10.1136/eb-2015-102054>
- Pope, H. (2018). Chapter 2. Incorporating Virtual and Augmented Reality in Libraries. *Library Technology Reports*, 54(6), 8.
- Shek, D. T. L., & Li, X. (2025). Development, implementation, and evaluation of a leadership subject for university students — “Tomorrow’s Leaders”. In D. T. L. Shek (Ed.), *Promoting holistic development in university students* (pp. 203–238). Springer. [https://doi.org/10.1007/978-981-96-0251-3\\_9](https://doi.org/10.1007/978-981-96-0251-3_9)
- Shek, D. T. L., Li, X., & Wong, T. (2023). Video teaching materials for leadership education: Subjective outcome evaluation based on university students in Hong Kong. *International Journal of Child Health and Human Development*, 16(1), 73–87.
- Shek, D. T. L., Li, X., Wong, T. Y., Chak, L. Y. Y., Cheng, N. S., Chiu, T. Y., Chu, K. M. C., Ho, W. W. L., Lam, W. S., Mok, P. W. B., Shek, K. F., & Xiao, C. (2024). Enhancement of technological social responsibilities in university students: Development of virtual teaching and learning videos. *International Journal of Child Health and Human Development*, 17(3), 159–169.
- Shek, D. T. L., Mok, B., & Wong, T. (in press). Promotion of technological social responsibility through video-based learning in a credit-bearing leadership subject. *International Journal of Child Health and Human Development*.
- Yeo, M. A. (2023). Academic integrity in the age of Artificial Intelligence (AI) authoring apps. *TESOL Journal*, 14(3), Article e716. <https://doi.org/10.1002/tesj.716>

Yu, L., Lin, L., Shek, T. L. D., & Chai, W. (2022). Students' Perceived Attributes and Benefits of a Leadership Course: Subjective Outcome Evaluation. *Research on Social Work Practice*, 32(2), 199–214. <https://doi.org/10.1177/10497315211042823>

**Table 2.** Positive Response Rates of Post-Lecture Video Evaluation for the 10 Videos.

| Questionnaire Item |                                                                                   | L1<br>N = 1,272                | L2<br>N = 1,222                | L3<br>N = 1,265                | L4<br>N = 1,301                | L5<br>N = 1,309                | L6<br>N = 1,197                | L7<br>N = 1,298                | L9<br>N = 1,149                | L10<br>N = 1,097               | L11<br>N = 1,005               |
|--------------------|-----------------------------------------------------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                    |                                                                                   | Positive<br>Response<br>Rate % | Positive<br>Response<br>Rate % | Positive<br>Response<br>Rate % | Positive<br>Response<br>Rate % | Positive<br>Response<br>Rate % | Positive<br>Response<br>Rate % | Positive<br>Response<br>Rate % | Positive<br>Response<br>Rate % | Positive<br>Response<br>Rate % | Positive<br>Response<br>Rate % |
| 1                  | The video is well designed.                                                       | 93.55                          | 93.04                          | 95.65                          | 94.39                          | 93.74                          | 94.40                          | 95.53                          | 96.17                          | 95.72                          | 94.53                          |
| 2                  | The video is relevant to the lecture topic.                                       | 93.63                          | 95.74                          | 96.60                          | 95.77                          | 95.11                          | 95.24                          | 94.99                          | 96.17                          | 96.17                          | 95.62                          |
| 3                  | The video is easy to understand.                                                  | 97.41                          | 96.64                          | 97.08                          | 95.85                          | 94.73                          | 95.15                          | 95.22                          | 96.52                          | 95.44                          | 95.12                          |
| 4                  | The video is interesting.                                                         | 85.14                          | 89.12                          | 91.78                          | 91.85                          | 91.37                          | 91.23                          | 93.37                          | 95.21                          | 94.17                          | 94.03                          |
| 5                  | The content of the video is stimulating.                                          | 91.43                          | 92.88                          | 93.75                          | 94.54                          | 93.89                          | 93.48                          | 94.14                          | 95.30                          | 95.44                          | 94.43                          |
| 6                  | The teacher used the video effectively.                                           | 94.42                          | 95.58                          | 96.21                          | 95.47                          | 93.43                          | 94.40                          | 95.22                          | 96.34                          | 95.53                          | 95.52                          |
| 7                  | The video-based activity enhanced my interaction with the teacher.                | 82.31                          | 86.01                          | 87.11                          | 87.86                          | 87.17                          | 89.14                          | 89.29                          | 92.95                          | 92.43                          | 92.24                          |
| 8                  | The video-based activity enhanced my interaction with classmates.                 | 76.42                          | 82.41                          | 85.14                          | 86.24                          | 85.33                          | 87.22                          | 88.60                          | 91.47                          | 90.98                          | 92.44                          |
| 9                  | I was very engaged in the video-based activity.                                   | 86.08                          | 89.36                          | 91.46                          | 90.70                          | 91.37                          | 92.65                          | 91.91                          | 94.34                          | 94.07                          | 93.43                          |
| 10                 | The video-based activity has enabled me to apply the theories in real life cases. | 88.68                          | 94.35                          | 95.49                          | 94.47                          | 93.20                          | 94.82                          | 95.38                          | 96.26                          | 95.35                          | 95.12                          |

| Questionnaire Item |                                                                    | L1                       | L2                       | L3                       | L4                       | L5                       | L6                       | L7                       | L9                       | L10                      | L11                      |
|--------------------|--------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                    |                                                                    | N = 1,272                | N = 1,222                | N = 1,265                | N = 1,301                | N = 1,309                | N = 1,197                | N = 1,298                | N = 1,149                | N = 1,097                | N = 1,005                |
|                    |                                                                    | Positive Response Rate % | Positive Response Rate % | Positive Response Rate % | Positive Response Rate % | Positive Response Rate % | Positive Response Rate % | Positive Response Rate % | Positive Response Rate % | Positive Response Rate % | Positive Response Rate % |
| 11                 | The video has enabled me to understand related concepts.           | 94.42                    | 95.91                    | 97.71                    | 95.70                    | 94.50                    | 94.49                    | 95.84                    | 96.34                    | 95.99                    | 95.52                    |
| 12                 | The video has deepened my understanding of the topic.              | 92.92                    | 94.93                    | 96.21                    | 95.00                    | 94.50                    | 95.66                    | 95.30                    | 95.82                    | 96.26                    | 95.32                    |
| 13                 | The video has enhanced my interests in the topic.                  | 88.21                    | 90.26                    | 91.94                    | 93.08                    | 92.36                    | 92.98                    | 94.07                    | 95.21                    | 94.44                    | 94.93                    |
| 14                 | The video has helped me to reflect on the topic.                   | 90.96                    | 93.70                    | 95.10                    | 94.24                    | 92.74                    | 94.15                    | 95.69                    | 95.91                    | 95.17                    | 94.93                    |
| 15                 | The video can benefit my development.                              | 91.27                    | 94.44                    | 95.49                    | 94.70                    | 93.35                    | 94.74                    | 95.76                    | 96.26                    | 95.62                    | 94.93                    |
| 16                 | I prefer using video in the teaching and learning of this subject. | 85.46                    | 90.26                    | 92.57                    | 93.39                    | 92.74                    | 93.48                    | 93.14                    | 95.56                    | 94.17                    | 94.03                    |
| 17                 | Overall speaking, I am satisfied with the video.                   | 92.30                    | 94.19                    | 95.57                    | 95.16                    | 94.42                    | 95.57                    | 95.45                    | 96.61                    | 95.99                    | 94.83                    |
| 18                 | Overall speaking, the lecture has enriched my development.         | 95.05                    | 95.01                    | 95.18                    | 95.00                    | 94.35                    | 95.32                    | 95.07                    | 95.91                    | 95.81                    | 95.12                    |
| 19                 | On the whole, I am very satisfied with this lecture.               | 96.70                    | 95.25                    | 95.81                    | 95.47                    | 94.12                    | 94.49                    | 95.45                    | 96.61                    | 96.44                    | 94.93                    |