HOW TO

香港大學
THE UNIVERSITY OF HONG KONG

cetl
Centre for the Enhancement of Teaching and Learning

create and conduct VIDEO BROADCAST effectively?

What is video broadcast?

Video broadcast is the distribution of audio and video content to audiences through audio-visual medium. It could be conducted live (also called live streaming) and can also be recorded. Traditionally it was often done in a one-way mode, with the teacher broadcasting contents to students. Due to technological advancement, new software are enabling students to respond, edit and share content, thereby promoting a higher level of engagement and interaction.

What are the benefits of using video broadcast?

- **Student motivation:** Many students enjoy watching and interacting with videos and are more likely to pay attention to videos compared to materials in text or audio.

- **Suitable for illustration:** For courses involving lab sessions, video broadcast offers a good alternative when students cannot conduct experiments in person. Videos are especially suitable for illustrating processes, scenarios, and interactions with the environment.

- **Individualised learning:** Students may watch the recorded videos anywhere and anytime using personal computer devices after the live streaming session.

- **Rich pedagogical applications:** Teachers can build on the video broadcast to create interesting tasks to engage students, for example, video annotation and video analysis assignments. It can also be used in combination with chatrooms and discussion forums.

What are the potential limitations of using video broadcast?

- **Greater initial efforts:** Creating video broadcast involves greater initial efforts than using podcasts or static visual/text materials. Most people feel nervous doing live broadcasting for the first several times.

- **Difficult to search:** It can be difficult to search a particular learning moment (note: Some platforms such as Panopto offer inside-video search.)

- **Inclusivity and accessibility:** Though computer devices and internet connections are generally available, accessing video broadcast could be difficult for students located in areas where internet is unstable.

- **Storage considerations:** Good quality videos are of a large size, which can lead to storage problems.

- **Trouble-shooting:** Technical trouble-shooting can be difficult when you are conducting live broadcast.

How can we conduct video broadcast effectively?

A. Equipment

- **Live video broadcast:** If you choose live broadcasting, you need a camera or a webcam, a microphone, a computer, and stable internet connections. In terms of software, HKU colleagues can download Panopto (http://lecturecapture.hku.hk) to install on their own devices under campus license. Other software include Camtasia, ActivePresenter etc.

- **Recorded video broadcast:** If you use recorded video broadcast, you simply need the recorded videos, a computer, and internet connections. You can upload the videos to Panopto, Moodle, and other platforms, e.g. youtube (better to set it as unlisted. See here: https://support.google.com/youtube/answer/157177?co=GENIE.Platform%3DDesktop&hl=en)

B. Plan and promote

- **Plan ahead the contents and prepare PowerPoints, scripts, or an outline:** For live video broadcast, planning ahead helps you conduct the sessions smoothly. Use the ADDIE instructional design model to help you to design your video course, see the ADDIE guide. If you want to broadcast your talking heads together with other sources, e.g. PowerPoint playing, you need to get these materials ready on your device.

- **Conduct several pilot runs:** For live video broadcast, please conduct several pilot runs to get familiar with the equipment and flow.

- **Promote the broadcast to your students:** For live video broadcast (e.g. webcast), please make sure you specify the time clearly (mind time zones!) and convey your expectations. For recorded video broadcast, please consider embedding some tasks into or after the videos to motivate your students to watch them.

C. During your broadcasting sessions

- **Live video broadcast – Keep your students engaged:** Consider encouraging your students to ask questions and make comments during live broadcasts. You can also respond lively – in the same manner as how you do it in a face-to-face classroom. Even better, these questions and comments will be stored for review at a later time. Alternatively, you can choose to stop questions and comments if you wish to focus on broadcasting contents.

Guide

- **Recorded video broadcast – Embed interactivity:** Consider using various interactive functions to keep your students motivated, for example, building a quiz inside the video (https://support.panopto.com/s/article/How-to-Add-a-Quiz-to-a-Video). Quizzes can be inserted at any points during the video. You can view the results and check students' understanding (Note: the quiz results will NOT be transferred to Moodle. If you wish to use quiz as summative assessment, please use the quiz function in Moodle).

D. Make the best out of the video resources

- **Manage your videos:** Your videos are precious learning resources, including the recordings of your live broadcast sessions. You can let students review the videos and post comments. Some platforms (e.g. Panopto) allow in-video search of words that have been said (in English) and will point to the exact time point (https://www.panopto.com/features/video-search/).

- **See who have watched:** Integrated with Moodle (http://moodle-support.hku.hk/teacher/panopto) at HKU, Panopto enables you to analyse who have watched your videos and in what patterns (http://moodle-support.hku.hk/moodle-and-panopto-usage-report#_figure2), which may provide hints about the most difficult concepts that students struggle with.

Good Practice Case Study

Below show some examples of using video broadcast to engage students in online learning:

- **University College London: Using videos to engage students in learning theories**

  Students reflect on the videos by choosing a specific part of the video to explain their new thoughts on the theory.

  https://www.ucl.ac.uk/teaching-learning/case-studies/2017/feb/using-video-online-module-encourage-students-engage-research-and-theory

- **Swinburne University of Technology and Deakin University: Using live streaming in blended learning**

  The teachers embedded various ways of interaction (e.g. online polling) in the live streaming. Students' evaluations showed that they enjoyed the interactions.

  https://er.educause.edu/articles/2015/7/anytime-and-anywhere-a-case-study-for-blended-learning

- **Duke University: Practical video examples**

  This page includes real, practical examples of videos in the forms of lecture, software demonstration, "Weatherman" video, interview videos, animations, and lab demonstration.

  https://learninginnovation.duke.edu/faculty-opportunities/online-teaching-and-learning/video-examples/

Resources and Further Reading

- HKU Panopto video tutorials (video capturing, editing and sharing)
  http://moodle-support.hku.hk/video/panopto_teacher

- Latest updates of Panopto and Moodle by HKU Information Technology Services (Feb 2020):
  http://moodle-support.hku.hk/resources

- Active learning examples powered by video in eight disciplines:
  https://www.panopto.com/blog/8-active-learning-examples-in-higher-education/

- Five practical tips on **creating short videos** that target the most important concepts (Purdue University):
  https://www.purdue.edu/innovativelearning/developing-courses/teaching-guides/video/targeted-video.aspx

- Creating effective educational videos:
  https://ctl.columbia.edu/resources-and-technology/teaching-with-technology/diy-video/effective-videos/

- Abdous, M., & Yen, C-J. (2010). A predictive study of learner satisfaction and outcomes in face-to-face, satellite broadcast, and live video-streaming learning environments. *Internet and Higher Education*, 13, 248-257. (*Main finding: In both face-to-face and online learning settings, **student-teacher interactions** predict student satisfaction and learning outcomes.*)

TeL.@HKU
Technology Enhanced Learning

http://www.cetl.hku.hk/tel/