Workshop on Production of Pre-recorded Teaching Videos and Multimedia Resources

April 2021 Edition

Course Objectives

The demand of online learning is increasing in recent years. In order to **enhance the learning and teaching (L&T) effectiveness**, this course helps participants to improve their skills / knowledge of:

- using **pre-recorded videos** and **multimedia materials**,

- adopting the **design methodology** of a video-based lesson / flipped classroom approach,

- producing **teaching videos** and

- adopting **good practices** in primary and secondary schools

Session Plan L1-1

Time	Duration	Topic
09:00 – 09:30	30 mins	Introduction to the online depository of curriculum based learning & teaching resources
09:30 – 09:50	20 mins	Pedagogical and design principles related to the planning and integration of video-based instruction and other e-learning materials with conventional classroom
09:50 – 10:00	10 mins	Break
10:00 – 10:50	50 mins	How to choose appropriate hardware, software and accessories to stream, record and post-process the video recording and live streaming

Session Plan L1-2

Time	Duration	Topic
10:50 – 11:00	10 mins	Break
11:00 – 11:10	10 mins	Principles and guidelines related to effective usage of video-based instruction
11:10 – 11:55	45 mins	Practical skills on instructional videos production with mobile device
11:55 – 12:00	5 mins	Assignment requirements

Introduction to the online depository of curriculum based learning & teaching resources

1. Introduction to different websites of the instructional / learning videos

Demonstration on common online depository of teaching resources

Salman Khan：影片能改變教育

- TeacherTube：https://www.teachertube.com/
- HKEdCity：https://emm.edcity.hk/
- Khan Academy：https://www.khanacademy.org/
- TED：https://www.ted.com/
- Instructables：https://www.instructables.com/

2. Introduction to the online depository of curriculum based learning & teaching resources

<u>Search for a good online teaching video to share with us.</u>
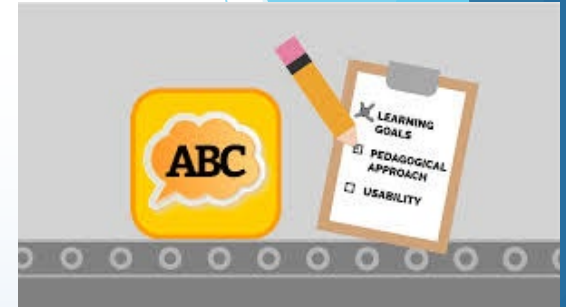
<u>Discussion :</u>
- Is the material interesting to students?
- Is the material useful to students' learning?
- Can it be adopted to school based activities effectively?
- Is there any copyright issues? Why we have to produce it on our own?
- ***Can it be produced easily?***

Pedagogical and design principles related to the planning and integration of video-based instruction and other e-learning materials with conventional classroom

3. Pedagogical approach related to the planning and integration of video-based instruction

- Behaviorism and teacher organized delivery
  - Teacher → Student (E.g.1 E.g.2)
- Cognitive development and interactive learning
  - Teacher ↔ Student
- Constructivism and web-quest based learning / Flipped Classroom
  - Student → Teacher (E.g.1)
- *Which approach should be adopted in video-based instruction ?*

4. Design principles related to the planning and integration of video-based instruction

Structural Issues:

- Proper choice of topic and its relation to right instruction modes
  - Bloom Taxonomy / Order of Thinking / What 》 How 》 Why
- Time management and its relation to the learning motivation
  - Attention Span of Student / Short Video vs Long Video
- Organization of learning modules and its relation to the development of school based teaching resources
  - Whole School Approach / Ownership of Video / Modularize
- Feedback and evaluation design
  - Comment / Google Form / Other online exercise / Webquest

Start Low !
- *short video*
- *single topic*
- *teacher based*

5. Implementation of video-based instruction

Discussion :

- Promotion of self regulated learning and its flexibilities to learners
- How compulsory class based e-learning tasks can reduce teachers loads and improve learning
- Lesson driven organization
- Topic driven organization
- Feedback design considerations
- Security considerations

- *Workload ?*
- *Complementary to face to face session ?*
- *Replace face to face session ?*

How to choose appropriate hardware, software and accessories to capture and process the video recording and live streaming

6. How to choose appropriate hardware, software and accessories to capture and process the video recording and live streaming

Wi-Fi Camera Setup Live Streaming

- Hardware needed :
  - Android / iOS devices
- Software needed :
  - YouTube App
  - Facebook App
- Tutorial :
  - **Get Started YouTube Live Streaming**
  - **Facebook Live**

What scenario will mobile streaming be suitable for ?

Reference

Live Streaming Equipment List: How to Create Your Ideal Setup

6. How to choose appropriate hardware, software and accessories to capture and process the video recording and live streaming

<u>Single HD Camera Setup Live Streaming</u>

- Hardware needed :
  - Mic + Camera + HDMI2USB + PC
  - Mic + HD Webcam + PC
- Software needed :
  - OBS Studio:
- Tutorial:
  - 如何善用手邊的 📷 相機、攝影機 📷 ［線上直播］教學 / FB YouTube 線上直播
  - 兩分鐘教學 - 直播Live篇 15 如何使用OBS進行直播?
  - 兩分鐘教學 - 直播Live篇 16 如何使用OBS進行直播?
  - OBS 教學, 屏幕錄影 自製網上教學片 (首20分鐘入門教學)

Can PC streaming be recorded ?

6. How to choose appropriate hardware, software and accessories to capture and process the video recording and live streaming

Multi-Camera Setup Live Streaming

- Hardware needed :
  - Mic+Cameras+HDMI2USBs+PC
  - Mic+HD Webcams+PC
- Software needed :
  - OBS Studio
- Tutorial :
  - [Setting up and using multiple webcams in OBS Studio](#)

How can multiple cameras benefit our teaching ?

Reference

[Live Streaming Equipment List: How to Create Your Ideal Setup](#)

7. Screen recording software

Mobile platform / Windows PC screen recording software

- Android: 8 Best Android Screen-Recording Apps

- iOS: How to record the screen on your iPhone, iPad, or iPod touch

- Windows : 8 Best Screen Recorders for Windows 10

    - WinG : How to Capture Video Clips in Windows 10

    - OBS Studio: How to Get Best-Quality Screen Recording Video in OBS Studio

Can an on screen instruction be conducted as easy as chalk and board ?

8. Issues of monitor

Practical Tips:
- Benefit on Multi Monitors Setup
  - Studio control panel / Pre-view panel
  - Resources panel
  - Presentation panel
- Benefit on Pen Writing Systems (Windows 10 Pen / Apple pencil,...)
  - Natural illustration on presentation Panel
  - Windows Ink : 使用 Windows Ink 工作區
    - Blackboard
    - Full page snip
  - iPad annotation : Draw in apps with Markup on iPad
- Handling Mirror Images of Live Streaming
  - Camera view vs Actual view
  - Google Meet → multiple login with the same account on more than one device to view actual view

Can online sections be recorded as instructional video ?

Principles and guidelines related to effective usage of video-based instruction

9. Principles and guidelines related to effective usage of video-based instruction

A 5-Step Guide to Making Your Own Instructional Videos

- CHUNK INSTRUCTION
- BUILD VIDEO-READY SLIDES
- RECORD
- ENHANCE ENGAGEMENT
- BE YOURSELF

Tips : A 5-Step Guide to Making Your Own Instructional Videos

Practical skills on instructional videos production with mobile device

10. Practical skills on instructional videos production with mobile device

- **<u>Exercise 1</u>** : Apple Pencil + Markup + Screen Recording
  - e.g. Explanation of exam pastpaper question
- **<u>Exercise 2</u>** : Windows Ink + Windows G screen Recording
  - e.g. Explanation of info-graph
- **<u>Exercise 3</u>** : Windows Ink + Web Cam + OBS Studio
  - e.g. Face showing explanation on powepoint
- **<u>Exercise 4</u>** : Dual Web Cams (simulated overhead projector) + OBS Studio
  - e.g. Face showing chalk and board mimick

Assignment requirements

Assignment

<u>Requirmements</u>

- To produce a short instructional video illustrate the following
  - a concept (What) or
  - a procedure (How) or
  - analysis (Why)
- The video can be produced from simple tablet screen recording with annotation to PC studio setup showing your face in illustration screen.
- Videos will be shared among each of us for comments and peer learning.
- Selected videos will be asked to present in the next session.

End of Session 1