Microlectures



What are they
Where to use them
Why use them
How to get students to watch them

Material

How to create them

What are they

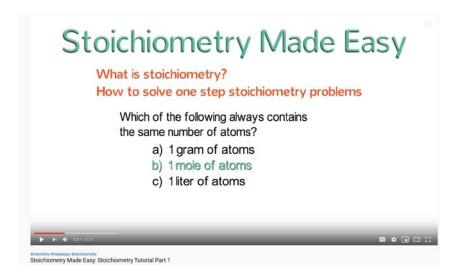
A microlecture is a short recorded audio or video presentation on a single, tightly defined topic. Microlectures are typically produced by an instructor, who might begin by drafting a rough script that includes an introduction, a list of key points to cover, and a conclusion.

Khan Academy TED-Ed

What are they



https://youtu.be/MDDQF9HF1tA
Microlecture about microlectures



https://www.youtube.com/watch?v=Gle1bPAZsgg Example of a microlecture

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Where to use them

Online 100% asynchronous

Online, synchronous and face-to-face

- Students watch them before attending class
- Class time is spent adjusting pacing and direction based on student queries
- The microlectures remain sharply focused



Where to use them

Note: here's the language on how classes will be categorized

How will I know if my course is remote, fully online, or face-to-face?

Your schedule in HOWDY will clarify which course type you are enrolled in like this:

- Face-to-Face Your schedule will have a meeting day(s) and time AND a room number
- Remote Your schedule will have a meeting day(s) and time and NO room number
- Online Your schedule will say "web"

https://www.qatar.tamu.edu/reopening-fall-2020





Why use them

Promotes self-directed learning

supports learner variability (option to pause, replay etc.) students then use to the microlecture to do something



Frees up class time

cover foundational concepts outside of class and use class time for problem solving

Makes difficult concepts easier to understand

providing first exposure through a video that can then be reinforced by reading the textbook, coming to class, etc.

Establishes instructor presence

which is in turn linked to motivation, retention and learning

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Embed them in the LMS – tracking function

Tie it to a grade (homework)

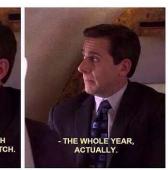
give students something to do after watching it (1 – 2 questions, point them to another resource, have them post a question on the discussion board)

Rule of thumb: every minute of video counts as two – three minutes of student time

me: can you please round up my grade to an A

teacher: you have a 55% in the class

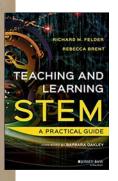




Scenario 3

Almost every day, Josh boots up his computer, connects to his course website, reviews the assignment schedule, and works for one to two hours. This week, he does the following:

- o Quickly reads through last week's posted handout on Mendel's experiments and reviews a seven-minute screencast of the course instructor lecturing on that topic.
- o Works through a virtual genetics lab session that enables him to simulate and replicate Mendel's experiments.
- o Takes a short quiz about the lab. If he misses a question he is given a hint and asked to try again. If he misses again, he is given the answer.
- o Logs in to a threaded discussion on the course website to review a thread dealing with a confusing homework problem, and posts a question about the problem that had not been addressed.
- O Views another screencast in which cell mitosis and meiosis are illustrated with animations and linked with Mendel's inheritance principles. He is confused by one step in meiosis and replays that part of the screencast, which clears up his confusion. He then takes and submits a quiz about the screencast and gets instant feedback.
- Begins an assignment that requires him to make predictions about fruit fly experiments and then simulates the experiments and tests his predictions using the virtual genetics lab.
- Ochecks his messages and finds one from his instructor answering a question he had sent late the previous night. Sends a message to the other members of his class project group reminding them of their scheduled virtual meeting and logs off.



Re: give students something to do after watching it



Material

- 1. Concepts/theory
- 2. Application/solving examples
- 3. Housekeeping
- What to do this week watch this video, read x, practice problems 3 12 Note: please make sure your naming logic is airtight W2_filename (week number and file name), C2_filename (class number and file name) and also reflected in the syllabus (e.g. syllabus mentions class numbers or week numbers)
- What to expect on the exam
- How to get started with assignment X
- 4. CommunityIntroducing yourselfWhy you're teaching this subjectWhy this class is important



"A hacker broke into our computer and, in an act of random kindness, organized our student files."

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KISS

used as a reminder to keep it simple, stupid US, 1960

- · Rear Adm. Paul D. Stroop, chief of the navy's weapons bureau, has instituted "Project KISS" to increase the reliability and reduce the cost of the military gadgets his organization produces. - Chicago Daily Tribune, p. 43, 4th December 1960
- Which brings us full circle back to the basic Claiborne philosophy: KISS-Keep It Simple, Stupid. - Washington Post, p. D7, 10th October 1979
- · Her primary role model seems to be Gwen Stefani at her fluffiest, and the guiding musical principle here is the time-honored "KISS"—keep it simple, stupid. - Los Angeles Times, p. E3, 22nd August 2006



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> How to create them Resources



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Audio only
weekly housekeeping matters
Video
introductions
what to expect on an
assignment/how to start it
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Zoom

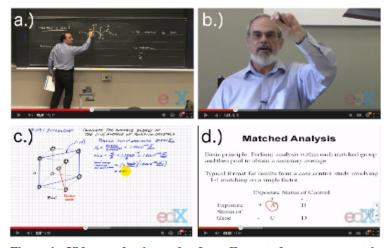


Figure 1. Video production style often affects student engagement in MOOCs. Typical styles include: a.) classroom lecture, b.) "talking head" shot of an instructor at a desk, c.) digital tablet drawing format popularized by Khan Academy, and d.) PowerPoint slide presentations.



Recording your screen/screencasting

Open Broadcaster Software record feature on Apple devices record feature on Windows 10

Camtasia (free 30 day trial)
Screencast-O-matic (free up to 5 minutes)

Avoid browser plugins, download a program, *but ...* Screencastify is free for up to 5 minutes







Script

talk directly to one student (i.e. "you" not "all of you") end with something for them to do/hand over

Less is more

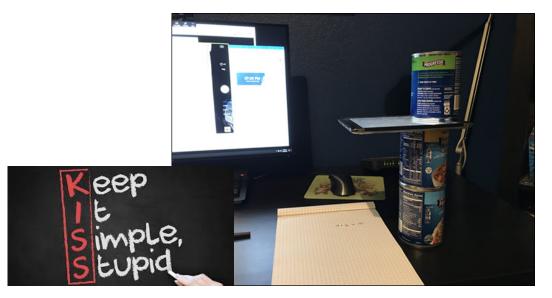
Keep formatting consistent

Ask guiding questions (and encourage students to write out the answers as they go along)

Don't read everything on the screen (if using slides, for example)

Watch samples online

IT has webcams on request





4 Steps to Creating a Microlecture



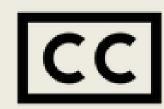
Record

- Select a video tool appropriate for your content.
- Record your microlecture
- Export your recording to a video file (usually an .mp4) and save it on your computer



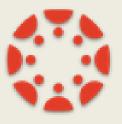
Host

- Select a hosting method
- Upload your video from your computer to the hosting provider



Caption

- Add accurate captions to your video
- If mechanical/automatic captions are provided, these may need to be edited to ensure they include punctuation and capital letters.



Embed

- Copy the Embed Code from the hosted video
- Embed the video on a Page or Assignment in your Canvas course

USE FRONTAL LIGHT

BE AWARE OF WHAT'S BEHIND YOU

GET A GOOD MICROPHONE



Where is your light source? Record so your face is illuminated.

A background can be a great way to convey a sense of who you are, but may also share more than you'd like.



Buy a USB microphone and test your sound before recording.

4 BE REAL

5 IT GETS BETTER!

6 KEEP IT BRIEF



Don't try to be perfect. Mistakes simply make you more human.



Over time, it won't feel so weird to talk to your webcam.



Aim for 5 minutes max. Identify your goals before you record.

Resources

7 things you should know about microlectures

How to record the screen on your mac

How to record video of an app in Windows 10

How to Use OBS Studio (Beginner's Guide)

How to Record your Computer Screen & Webcam (OBS Studio)

How I record written math solution videos

Screencastify overview (Chrome extension)

4 Ways to Make Sure Students Are Watching Your Videos





