



Video Creation for Teaching & Learning

Dr. Laurie S. Starkey
CaI Poly Pomona
Chemistry & Biochemistry Dept



QR Code for my homepage

Teaching & learning resources



San Antonio, Texas| March 5-7, 2020

WILEY

1

Making videos the old-fashioned way

- Record a presentation with camera
- Need tripod or videographer (studio at your institution?)
- Pros
 - quick & easy
 - instructor-student relationship
- Cons
 - Limited (or zero) editing options
 - Poor resolution



3D sketch



reagent table

San Antonio, Texas| March 5-7, 2020

WILEY

4

Why use video to supplement Lecture and Textbook?

A great lecture can be great, but it cannot be...

PAUSED if a student needs to think

REPLAYED if not grasped immediately

REPEATED for exam review

CAPTIONED – not just for the impaired!

TRANSLATED into another language

DELIVERED to a student who is absent

San Antonio, Texas| March 5-7, 2020

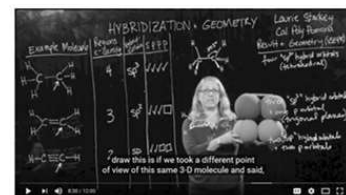
WILEY

2

Evolution from a blackboard...to a white board...to a light board!

21st Century lecture: transparent lightboard

- Present a lecture with a Learning Glass/lightboard!
- Neon writing + maintaining eye contact = captivating lecture!
- Inexpensive to build



(how it works)

San Antonio, Texas| March 5-7, 2020

WILEY

5

Fast, free & forever

Selecting the Right Tool

- Free? Look for trial versions
- Advice/training from Faculty Center?
- Video can be downloaded/stored offline?
- Product reputation? Longevity?



San Antonio, Texas| March 5-7, 2020

WILEY

3

The gold standard for screencasting

Camtasia: screen capture & video editing

- Uses screen capture (while recording voice) to make videos
- Great for demonstrating software
- PowerPoint integration
- Advanced editing tools (learning curve)
- Tutorials: <http://tiny.cc/CreatingPedagogicalVideos>
- Examples: tutorial and solved problem



San Antonio, Texas| March 5-7, 2020

WILEY

6

I ♥ my Apple pencil

iPad/Tablet Screen Capture Apps

- Screencasting = records voice + writing
- Import slides/graphs/images for markup
- Export videos to camera roll
- Best stylus = Apple pencil
- Can be used during lecture (Airplay to project on screen)



San Antonio, Texas| March 5-7, 2020

WILEY

7

YOU get an app! And YOU get an app!

Other Screen Capture Apps

- GoodNotes – popular with students
- Screencast-O-Matic – free for PC, Mac
- TouchCast
- And many more



App Store



Google play

San Antonio, Texas| March 5-7, 2020

WILEY

10

Explain Everything

Explain Everything – Simple Screencasting

- Quick startup, easy to use
- Free version = a single slide
- Limited editing options



Drawing Cyclohexane Tutorial

San Antonio, Texas| March 5-7, 2020

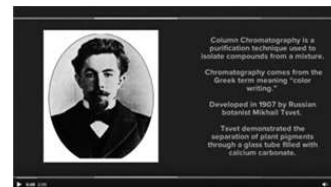
WILEY

8

Professional presentation in 15 minutes!

Adobe Spark

- Free website <http://spark.adobe.com>
- Select layout, theme, music
- Photos/images search tool
- Add narration to each slide (click and hold RECORD button)
- ZERO learning curve for student presentations



San Antonio, Texas| March 5-7, 2020

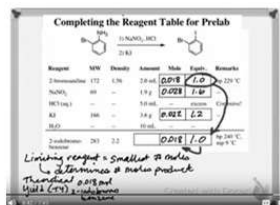
WILEY

11

Harry Potter-style writing appears on the screen

Doceri – Magically reveal writing as you lecture

1. Write out complete lecture
2. Add stop markers to timeline
3. Begin recording, hit PLAY
4. Words appear as if writing in real time
5. Discuss freely, markup notes... no multitasking!
6. More personal look/feel than PowerPoint



Reagent Table

San Antonio, Texas| March 5-7, 2020

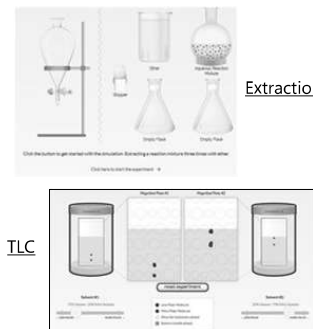
WILEY

9

Getting interactive

Animations & Simulators

- Ultimate interactivity
- Provide a worksheet for guided inquiry, note-taking
- Explore campus resources
- CS/CIS Senior Project?



San Antonio, Texas| March 5-7, 2020

WILEY

12

Sharing your Work: Why YouTube?

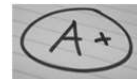
- This is where our students turn for help!
- Quality of online material varies WIDELY
- Students need high-quality resources created by experienced faculty...that's YOU!
- Videos can be captioned (Hablas Español? Si!)
- Private (LMS) vs. Public
- Impact beyond current semester, beyond your campus



13

I made a video. Now what?

- How will video be implemented?
 - Before, during, or after class?
 - Student work alone, or in groups?
 - Accompanied by worksheet or problem set?
- How will video be assessed?
 - Administer a quiz or anonymous survey
 - Gather data, close the loop by revising video or redesign of next project.



16

Maximizing Your Video's Impact

- Make a YouTube channel!
 - ChemistryConnected, created in 2012, has over 600,000 views and over 1,300 subscribers
 - Pre-lab tutorials, solved problems, demos of hands-on elementary school science activities
 - Over half the views have come from outside the U.S. (200 different countries)
- <http://www.youtube.com/user/ChemistryConnected>

14

Student Buy-In & Institutional Support

- Keep videos short & rich with multimedia
- Faculty Learning Communities
- Course Redesign Initiatives
- Collaborate with colleagues, tech-savvy students



17

Planning a Video Project

- Identify the learning objectives
"After watching this video, the student will be able to..."
- Create a storyboard/outline (script?)
- Maximum length = 6 minutes!
- Get IRB approval (SoTL)
- Gather materials, support
- Record beta version, gather feedback



15

Final Words of Advice

- Start small, focus on one SLO
- Don't aim for perfection
- Seek formative feedback
- Embrace your role as a lifelong learner
- Have fun!



18