Flipping Your Class: Designing Multimedia Content

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What is a Flipped Class?

- “Swapping classroom lecture time for hands-on practice” (Kachka, 2012)
- “normal class-time activity (lecture) is done from home, while homework-like activities (practicing problems) can be done during class time” (Holton, 2013)
- 1) students gain necessary knowledge before class, and 2) instructors guide students to actively and interactively clarify and apply that knowledge during class (UT Austin CTL, 2013)
What It’s Not

- Online videos or replacing teaching with videos
- An online course
- Students working without structure in isolation
An example: TeamLEAD at Duke
Optimal Length for Online Video

• Sarah’s “I’ve not bothered to look for a few years” response
  • 8-12 (or 8-10) minutes is ideal

• Unscientific quick Google search response
  • Purdue 6 mins
  • Ohio State 6 mins
  • Penn State 3-5 mins
  • UNC Charlotte 3-5 mins

• You’ve got to be kidding me…
A recent analysis shows that learner engagement drops significantly if the video length is longer than 6 minutes

(Kim & Guo, 2014)

Data from interaction logs in the edX Video player over four courses offered in Fall 2012.

Figure 1. Longer videos exhibit higher dropout rates. Our linear regression model uses the log-transformed video length (x-axis) to predict the dropout rate (y-axis). The model fits the data well with $r=0.55$ with 95% CI = [0.50, 0.59].
Student Considerations

• Unlike an online or hybrid (blended) class, your students did not sign up for a “flipped” course

• Be considerate of student time and planning
  • “This week’s homework is a little long. Make plenty of time for it. We are doing an activity in class Thursday and you need to come prepared.”

• Demonstrate value and reward
  • Activity aligns to a clear objective
  • Points are assigned and feedback of some kind is provided (now or later)

• Don’t create multimedia opportunities that may be interpreted as a burden or feel frustrating to use
  • Hard to access, Difficult to obtain help, Tedious to navigate
Build for a “Pause and Rewind” audience

Student self-pacing of pre-recorded lectures may reduce cognitive load and help learning in a flipped classroom environment (Abeysekera & Dawson, 2015)

- Find clear breaks between concepts and chunk content into segments
  - Consider aiming for the 6 minute video clip
- Label segments clearly for easier student identification and review
- Allow students to skip forward / backwards
- Encourage and expect that students will explore and re-play content
The Volsungasaga is a medieval work from the 13th century. Culturally it differs from what you are used to and it is important to understand the historical context before reading the text.

- Videos
  - **Part 1: Historical Background**
    - Check for understanding! – Do something! – Take a break and refocus!
  - **Part 2: Saga of the Volsungs and the Different Versions**
    - Check for understanding! – Do something! – Take a break and refocus!
  - **Part 3: Mythical Background**
    - Check for understanding! – Do something! – Take a break and refocus!

- Wrap-up Activity
  - Worksheet, reflection, case, quiz etc.

Tina Boyer, Assistant Professor
Department of German and Russian
Assign Activities, Not “Videos”

- Pair an assignment with your multimedia
  - Blog Entry
  - Short Quiz with Feedback
  - Worksheet
  - Essay
  - Have students create something

- Build the assignment *INTO* multimedia
  - Leave a comment and tell me about a time when…
  - Which of the following relates to the concept we covered…
  - Check your understanding before moving on to next segment…

- How do students know when they “got it”?
Technology Tips

• Technology Selection
  • Does it play on mobile? Can it stream? (Avoid downloads)

• Ease of Use
  • Univ supported? Create a handout? Tips for Troubleshooting?

• Ease of Access
  • Rosters? Links? Answers Recorded? What can go wrong?

• Computer Generated Voices – Novelty vs. Irritant
  • Students have higher retention from human voice (Mayer 2009)
• No excuses
  • Set the expectation that students will troubleshoot

• How-to
  • Include links to the how-to guides and help resources

• Ask for help, even if the technology is not supported by the university
  • *Pop-up blockers, plug-ins, and browser help ARE supported!*
Production Tips

• Use a script for organization and maintaining proper length
  • Unlike Sarah, guilty of using her PowerPoint bullets as her notes
  • Retain script for Closed Captioning

• Split Attention = Bad for retention
  • Be aware of auditory / visual processing
  • Remove busy clipart and distracting visuals
  • Don’t read to students when the same text appears on screen (Mayer 2009)

• Students are forgiving, but know when to ask for production help
  • Borrow or obtain better equipment or software
  • Weekly multimedia assignments may become tedious if poor quality
Planning Tips

• What will students do in class?
  • Draft in-class lesson plan
  • Determine the point of entry for success

• How do we get students to that successful entry point?
  • Students identify terms?
  • Students explore concepts and ideas?
  • Students practice an application in one way?

• How do I deliver the online activity?
  • Chunk content into segments
  • Identify points to actively engage and assess the student’s preparedness
  • Technology Selection (LAST!)
Technology Selection

• Today we have almost *too many* to choose from!
  • If one doesn’t work for you, you can easily find another
  • Network with instructional technologists and instructional designers
  • Learn more about what other faculty are using

• Narrow down technology by **type** rather than **title**

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<thead>
<tr>
<th>Type</th>
<th>Title</th>
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<tbody>
<tr>
<td>Screencast</td>
<td>Jing</td>
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<tr>
<td>Video Quiz</td>
<td>EdPuzzle</td>
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<tr>
<td>Narration</td>
<td>VoiceThread</td>
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*Campus Help & Resources for Online Lecture Delivery Methods*  
Online Education @ Wake Forest University  
Sandra McConnell - 336-758-4511 - smcc@wfu.edu

Audio Podcast  
Audio is a great way to add audio segments that allows you to add audio, and narrations. Audio is useful for providing an extra touch to your content. Audio podcasts can be created using simple audio editing software or an audio recording device.

Video Lessons  
Video lessons are a great way to add visual elements to your content. Video lessons can be created using a variety of tools, such as Camtasia or ScreenFlow. Video lessons can be used to add visual elements to your content, such as animations or graphics. Video lessons can also be used to add visual elements to your content, such as animations or graphics.

**PSE Model for Quick Videos**  
The PSE model is a helpful tool for creating quick videos. The PSE model is a helpful tool for creating quick videos. The PSE model is a helpful tool for creating quick videos. The PSE model is a helpful tool for creating quick videos.

Classroom Capture  
Classroom capture is a tool that allows you to record classroom activities. Classroom capture is a tool that allows you to record classroom activities. Classroom capture is a tool that allows you to record classroom activities. Classroom capture is a tool that allows you to record classroom activities.

Governance  
Governance refers to the management or direction of an organization. Governance refers to the management or direction of an organization. Governance refers to the management or direction of an organization. Governance refers to the management or direction of an organization.
Today’s Workshop

• **VoiceThread**
  - Upload a document, PDF, PowerPoint, etc
  - Record your Voice or Video
  - Engage: Ask students to respond
    Audio, Video, or Draw on screen

• **EdPuzzle**
  - Select an existing video from YouTube
  - Upload a video file that you already created
  - Engage: Video pauses and prompts students to respond
    Multiple Choice or Type an answer
References and Good Reads


• 3 Takeaways From the SXSWedu Conference - The Chronicle of Higher Education http://chronicle.com/article/3-Takeaways-From-the-SXSWedu/235700