

Why flip?

10 Reasons to Flip

1. Students set pace themselves.
2. Better insight into student difficulties and learning styles.
3. Customized and updated curriculum.
4. Access to multiple teachers' expertise.
5. “Flipping” professional development.

Source: Fulton, K.P. (2012). 10 reasons to flip. Phi Beta Kappan 94(2), 20–24.

10 Reasons to Flip *(continued)*

6. Effective/creative use of class time.
7. Parents' window into coursework.
8. Increased student achievement.
9. Alignment with learning theory.
10. Flexible use of technology; 21st-century learning.

Other Reasons to Flip

- It's great when an administrator asks "how do you use technology in your classroom?"
- The flipped model encourages students to take an active role their learning.
- If your content doesn't change too much from year to year, set videos up once and reuse material next year.

Other Reasons to Flip

- “...the best part of the process is devoting more time to deeper discussions, small-group projects, and one-on-one interventions.” - Ullman, E. (2013). Tools & Tips for the Flipped Classroom. *Tech & Learning*, 33(10), 38–39, 42, 44.
- Choir directors have used a “flipped” strategy for years: sending part tapes/ CDs home to help students learn their voice parts at home. Now we can simply make the practice tracks available online.

Other Reasons to Flip

“At colleges nationwide, more and more professors are inverting homework and classwork, using technology to give students a head start on classroom sessions where they can be active participants and not just listeners.”

Mangan, K. (2013). Inside the flipped classroom. *The Chronicle of Higher Education*.

Some **real-world** examples...

Tom Nasiatka, secondary general



Stephanie Duve, AP music theory



Stephanie Duve, AP music theory

Major Diatonic Chords

Handwritten musical notation for the D major diatonic chords. The staff is in treble clef with a key signature of two sharps (F# and C#). The chords are represented by circles on the staff lines, with the label "D:" written below the first chord.

| Chord | Notes |
|-------|-----------|
| D | D, F#, A |
| E | E, G#, B |
| F# | F#, A, C# |
| G | G, B, D |
| A | A, C#, E |
| B | B, D, F# |
| C# | C#, E, G# |
| D | D, F#, A |

Handwritten musical notation for the E-flat major diatonic chords. The staff is in bass clef with a key signature of three flats (Bb, Eb, and Ab). The chords are represented by circles on the staff lines, with the label "E^b:" written below the first chord.

| Chord | Notes |
|----------------|--|
| E ^b | E ^b , G ^b , B ^b |
| F | F, Ab, C |
| G ^b | G ^b , B ^b , D ^b |
| A ^b | A ^b , C, Eb |
| B ^b | B ^b , D ^b , F |
| C | C, Eb, G ^b |
| D ^b | D ^b , F, Ab |
| E ^b | E ^b , G ^b , B ^b |

Handwritten musical notation for the B-flat major diatonic chords. The staff is in treble clef with a key signature of two flats (Bb and Eb). The notation shows the beginning of the chord sequence.

| Chord | Notes |
|----------------|-----------------------|
| B ^b | B ^b , D, F |

Stuart Hill, middle school choral



Jennifer Hodil, AP music theory

- Website includes lesson videos and online assessments for student accountability and to check for student understanding before class time begins.
- Based on the assessment, she plans what she needs to go over again during class time; so this is really a perfect blend of the flipped and traditional models.
- Her students' test scores have improved since using the flipped model.

Other possibilities...

- Videos demonstrating instrument handling/maintenance/care
- Share a video background information about the composer of the music you are preparing for a concert. Create a tour on Google Earth for students to see the places the composer lived and worked.

Other possibilities...

- Find Two YouTube videos: one with an ideal performance and one with a less than ideal performance of a piece you are working on, and have students complete the district festival adjudicators' rubric for each performance.
- In a high school keyboard class: Take picture of new song, mark important features, record voice-over to explain new concepts or skills; students watch at home so every minute of class time can be spent giving individual help to students.

What does the **research** say?

- Used **step-by-step video podcasts** to teach pre-calculus concepts in and undergraduate calculus course
- Students self-reported **higher confidence in their abilities** to complete these kinds of problems after availing themselves of the podcasts
- Of the students who used the podcasts (n=195), **87% said the podcasts were "useful" or "very useful"**

Evaluating the use of problem-based video podcasts to teach mathematics in higher education

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ARTICLE HISTORY
Article history:
Received 21 November 2011
Received in revised form
20 February 2012
Accepted 5 March 2012

ABSTRACT

Problem-based video podcasts provide short, web-based, audio-visual explanations of how to solve specific procedural problems in subject areas such as mathematics or science. A series of 59 problem-based video podcasts covering five key areas (operations with functions, solving equations, linear functions, exponential and logarithmic functions, and trigonometric functions) were created as self-study tools and used by 288 higher education students to acquire pre-calculus skills over a three

- Compared the experiences of students in a **control group** (n=32) with students who received instruction via a **"flipped" model** (n=29)

- **Flipped group scored higher on average; stronger effect observed for males**

- Students in the flipped group reported a **strong preference for the flipped model** over the traditional approach

Effects of the Flipped Classroom Model on Student Performance for Advanced Placement High School Chemistry Students

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Supporting Information

The flipped classroom model is a pedagogical approach in which students learn new material through video lectures at home and then spend class time on interactive learning activities. This study investigated the effects of the flipped classroom on academic performance of high school advanced placement chemistry students. Student perceptions about the approach were also studied. The control group consisted of 32 students and the flipped group consisted of 29 students. The study was conducted over one academic year, in which the flipped classroom approach was used. Identical assessments were administered and analyzed through both descriptive statistics and independent t-test. A statistically significant preference was found for the flipped classroom approach over the traditional approach. In addition, most students had a favorable perception about the flipped classroom noting the ability to pause, rewind, and review lectures, as well as increased individualized learning and increased teacher availability.

- Compared experiences of three groups: **lecture-only** (n=130), **lecture and video backup** (n=129), and **flipped model** (n=186)

Research Brief

- **Flipped group scored higher on assessments; difference was statistically significant**

ABSTRACT

This study aimed to determine the effects of a flipped classroom (i.e., reversal of time allotment for lecture and learning activities) on assessment success and the satisfaction of nursing students. A quasi-experimental design was used to compare three approaches to learning: traditional lecture only (LO), lecture and lecture capture (LC), and lecture capture with innovative classroom activities (LCI). Examination scores were higher for the flipped classroom LCI group ($M = 81.89, SD = 5.02$) than for both the LLC group ($M = 80.70, SD = 4.25$), $p = 0.003$, and the LO group ($M =$

Despite the easing of the nursing shortage, Buerhaus, Auerbach, and Stalger (2009) cautioned that the need for nurses will worsen to critical proportions as the economy recovers. The United States Institute of Medicine (IOM) reported a reason for the continuing shortage: students lost through attrition have met admission requirements and have successfully completed prerequisite courses but were unable to complete the nursing program due to a variety of factors. Efforts by Walker et al. (2011) have focused on methods to increase student retention, including an examination of student preadmission characteristics and the use of innovative teaching protocols. The current study expanded those efforts to improve the success

- Interestingly, flipped group reported **lower satisfaction with the course**

Some **take-aways**...

- We need **more research** on this topic, especially in music education
- **Much depends on execution** (better results, but lower satisfaction?)
- Initial promising results suggest that the model **deserves our attention**

Tools for flipping

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The background of the banner features a chalkboard with various physics and chemistry equations, including $V = c/\lambda$, $\Phi = NBS$, $F = BIL$, $\mu_1 I_1 I_2$, $\Delta E / \Delta t$, $\frac{m_1}{x} + \frac{m_2}{x'} = \frac{m_2 - m_1}{r}$, and $F_x = \frac{1}{2} C_x \rho S v^2$.

Explain Everything



Slide 1 of 2

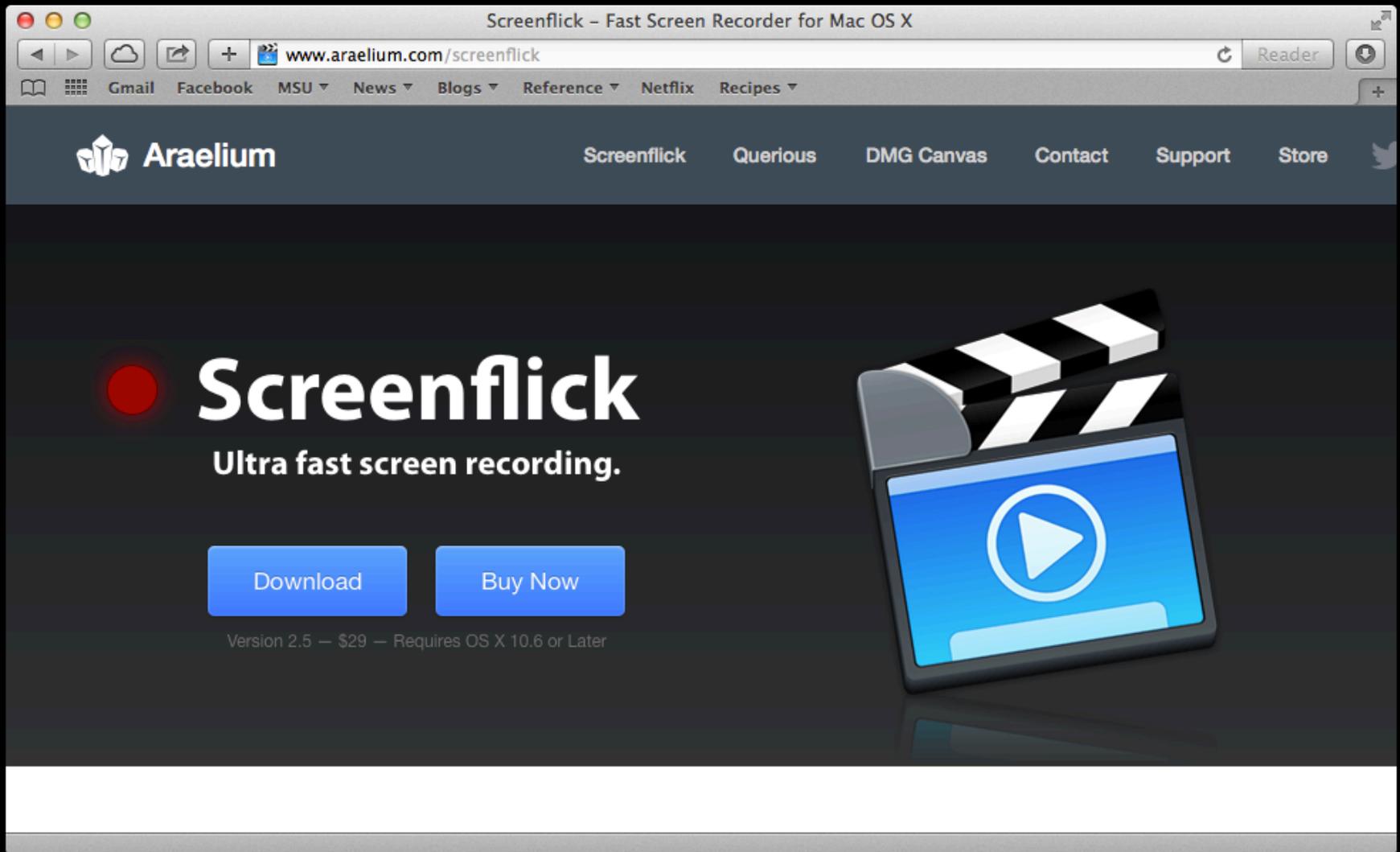


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Explain Everything

Screenflick



The image shows a browser window with the title "Screenflick - Fast Screen Recorder for Mac OS X". The address bar shows "www.araelium.com/screenflick". The navigation menu includes "Screenflick", "Querious", "DMG Canvas", "Contact", "Support", and "Store". The main content area features the "Araelium" logo, a red circle, and the text "Screenflick Ultra fast screen recording." Below this are "Download" and "Buy Now" buttons. At the bottom, it says "Version 2.5 - \$29 - Requires OS X 10.6 or Later". An illustration of a clapperboard with a play button on a screen is also present.

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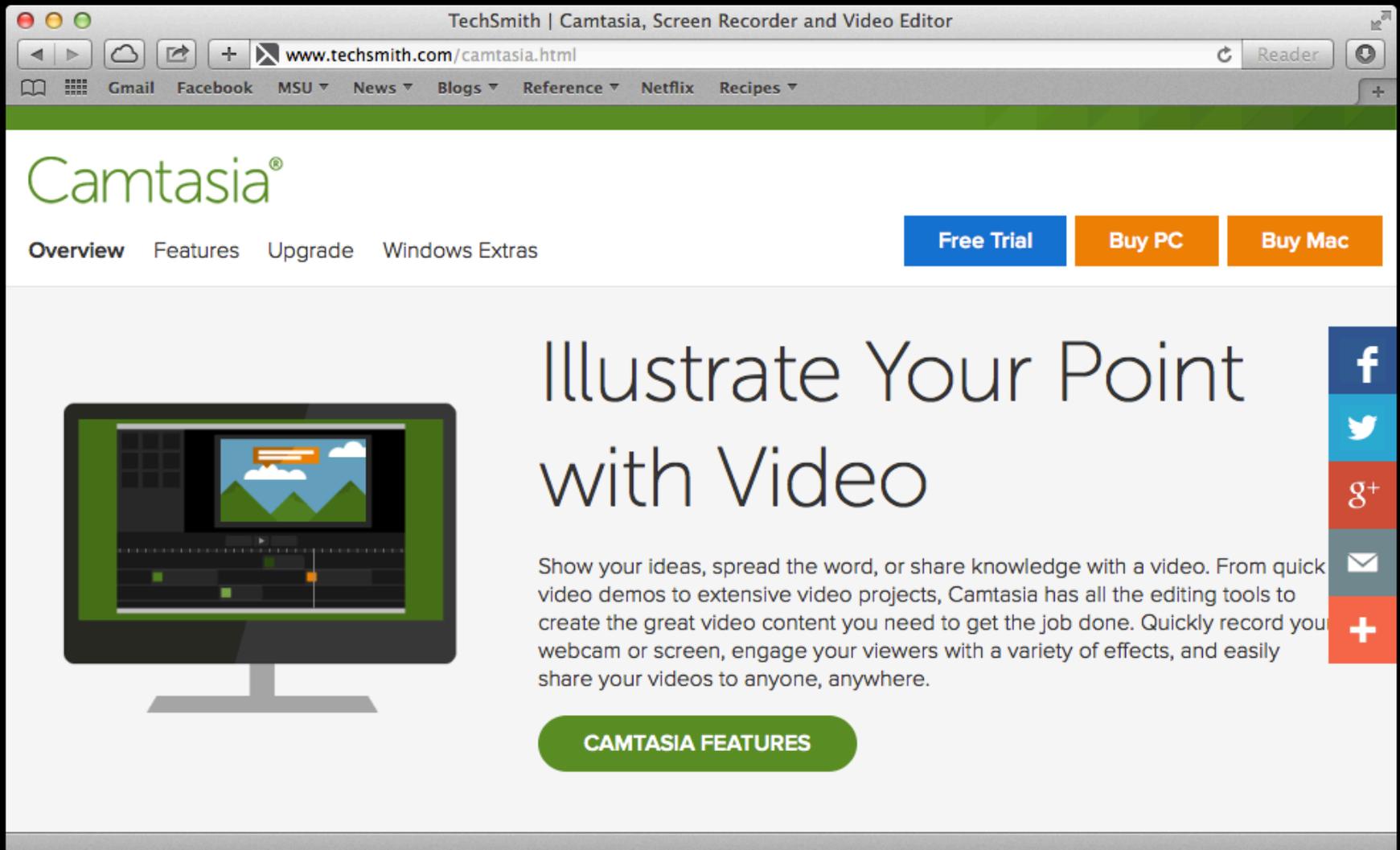
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Camtasia



The image shows a browser window displaying the Camtasia website. The browser's address bar shows the URL www.techsmith.com/camtasia.html. The website header features the Camtasia logo in green, followed by navigation links: Overview, Features, Upgrade, and Windows Extras. To the right of these links are three buttons: a blue 'Free Trial' button, an orange 'Buy PC' button, and another orange 'Buy Mac' button. The main content area has a large heading 'Illustrate Your Point with Video' and a sub-headline 'Show your ideas, spread the word, or share knowledge with a video. From quick video demos to extensive video projects, Camtasia has all the editing tools to create the great video content you need to get the job done. Quickly record your webcam or screen, engage your viewers with a variety of effects, and easily share your videos to anyone, anywhere.' Below the sub-headline is a green button labeled 'CAMTASIA FEATURES'. On the left side of the main content area is an illustration of a computer monitor displaying a video editing interface with a play button and a timeline. On the right side, there is a vertical stack of social media sharing icons: Facebook, Twitter, Google+, Email, and a plus sign for more options.

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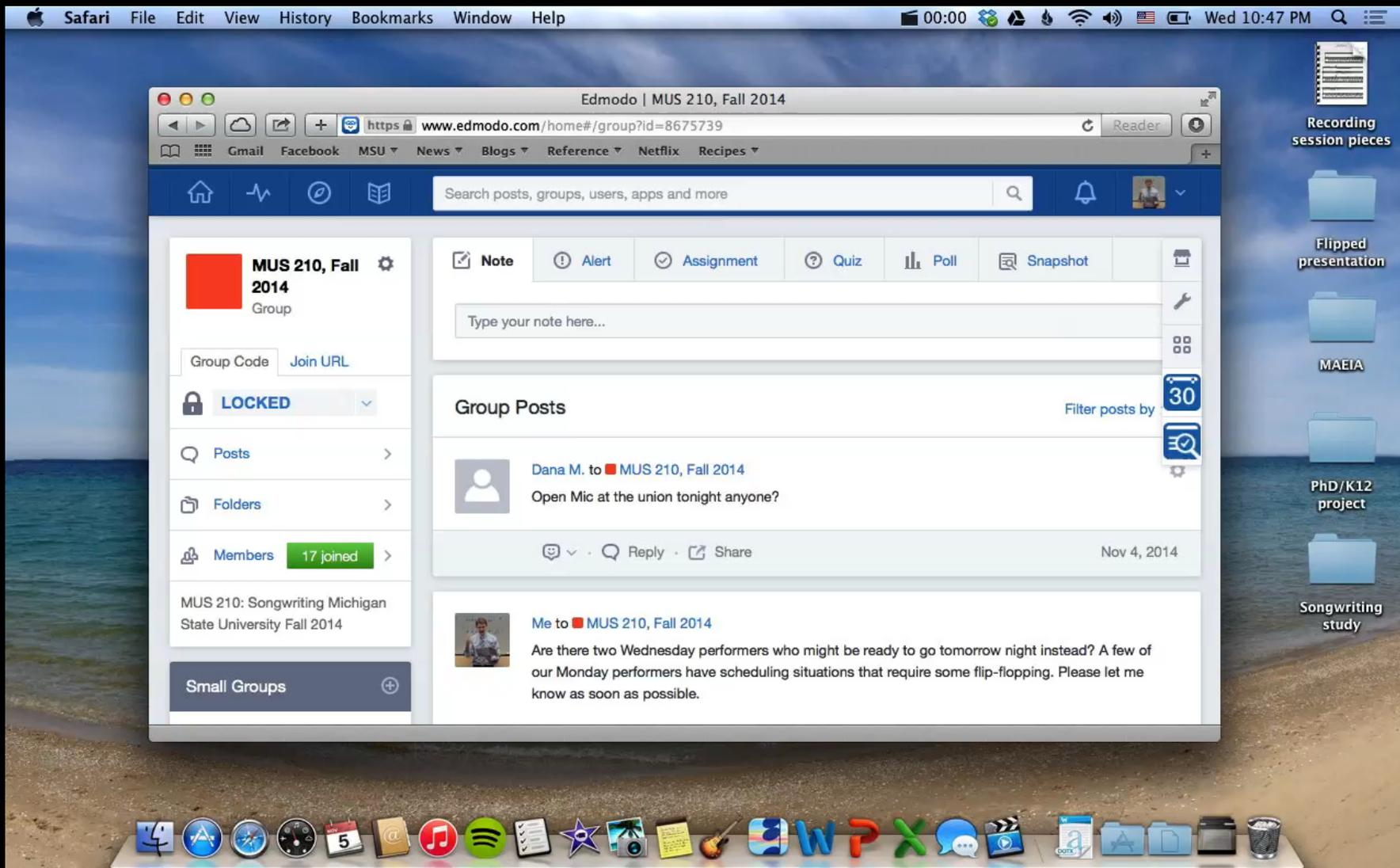
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Other Tools

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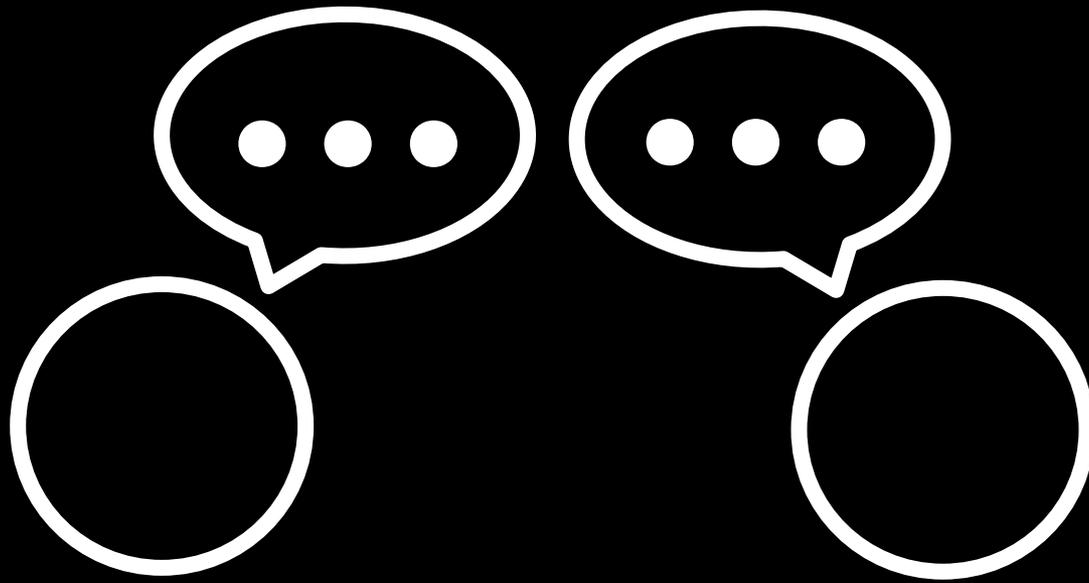
www.edmodo.com

Google Classroom

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Educreations

www.educreations.com



Turn to a neighbor...

- How could you apply this model in your own classroom?
- What would you need in order to get this started in your setting?
- What can you include right away?





Thank you!



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