

Flipping the Classroom

Ann H. Taylor
Director, Dutton e-Education Institute
Penn State University

*This presentation is licensed under a
Creative Commons Attribution-ShareAlike 3.0 Unported License*

+ Introductions!

- Name, rank, serial number 😊
- What are you hoping to get out of today?



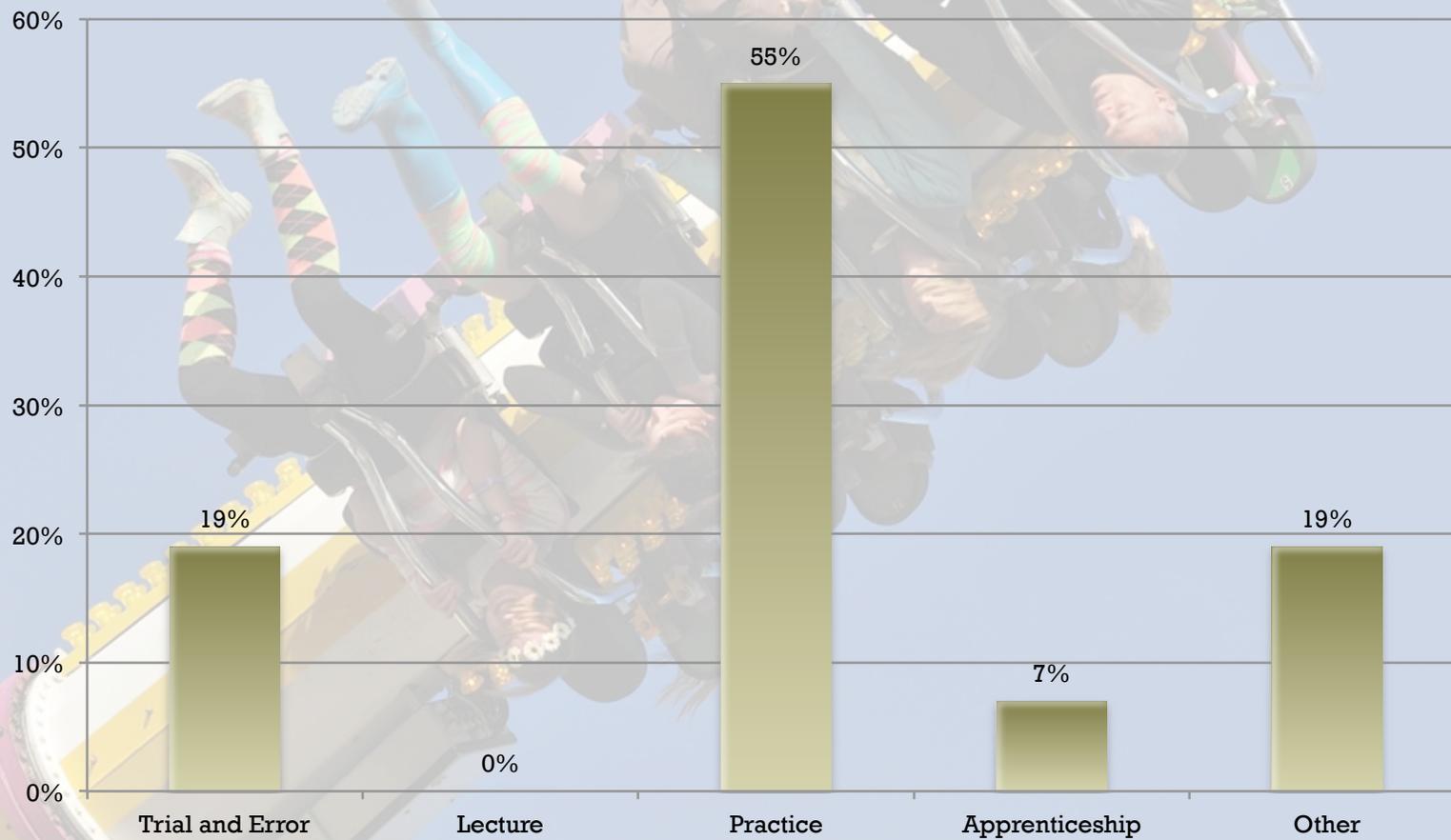


+ Why are we flipping out?

Think about something you are really good at.
How did you learn that skill?

- Trial and error
- Lecture
- Practice
- Apprenticeship
- Other

+ Mazur's Findings

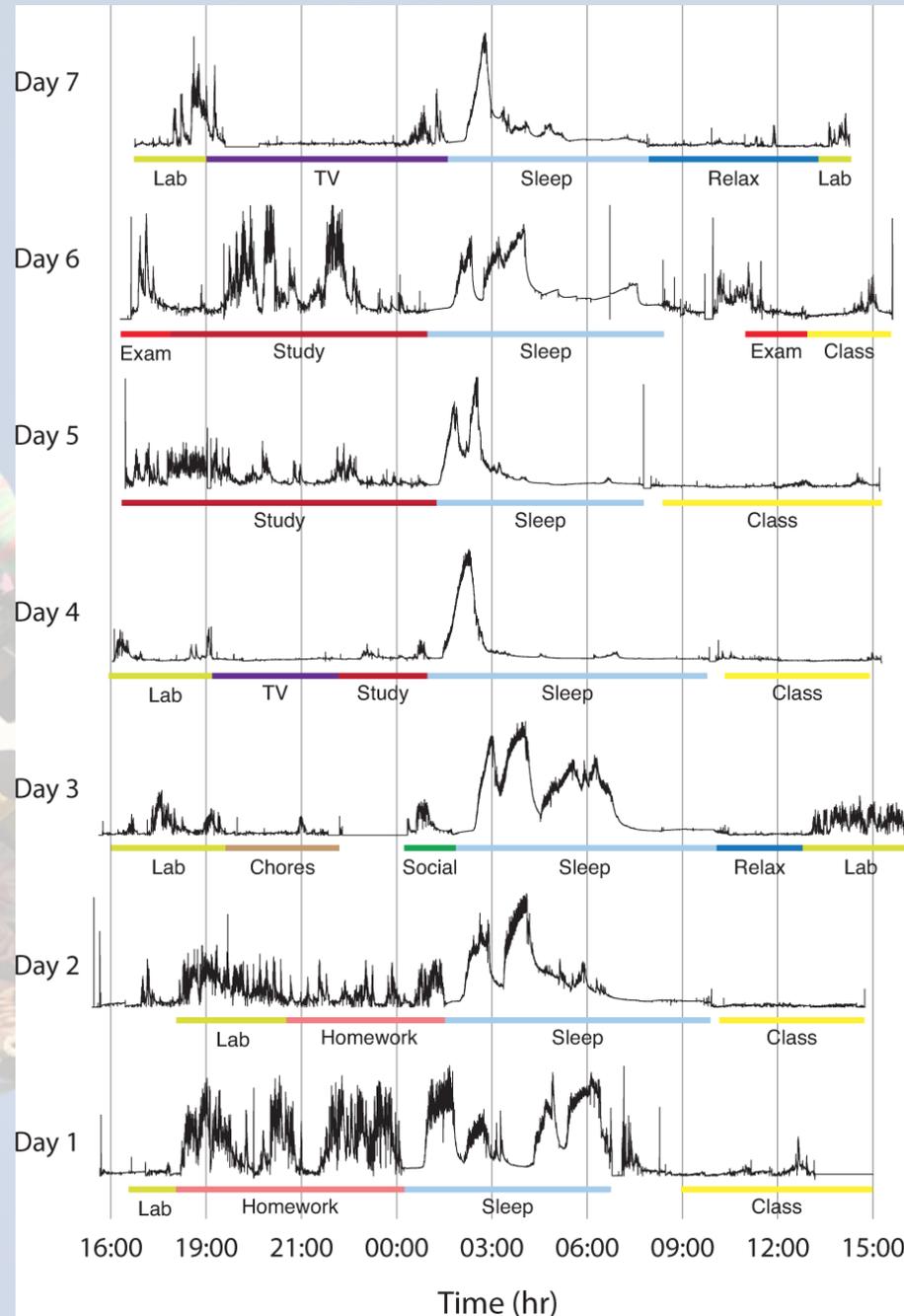


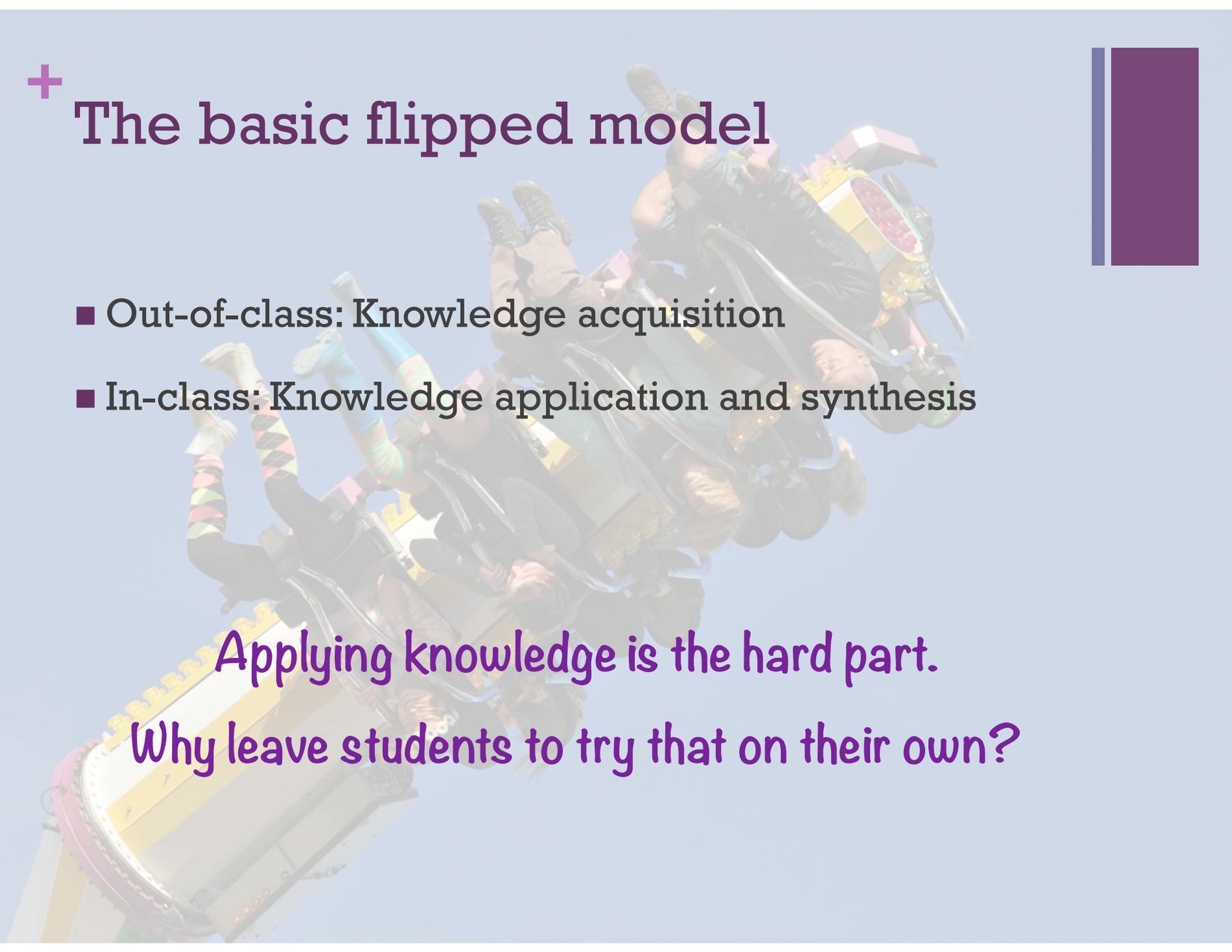
Source: Educause Live! September 27, 2012

+ MIT Study

Wrist-sensor readings for a single MIT student over the course of week.

Ming-Zher Poh,
Swenson, N. C., & Picard,
R. W. (2010)





+ The basic flipped model

- Out-of-class: Knowledge acquisition
- In-class: Knowledge application and synthesis

Applying knowledge is the hard part.
Why leave students to try that on their own?

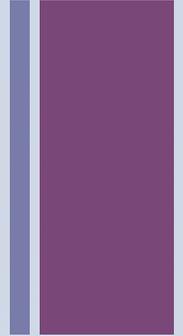
+ A few clarifications...

■ It is NOT

- Just putting video lectures online
- A replacement for face-to-face teaching
- An online course
- An unstructured learning experience

■ It IS

- A blending of online and on-ground teaching and learning
- A means for increasing student-content, student-student, and student-instructor interaction
- A way for students to take more responsibility for their learning



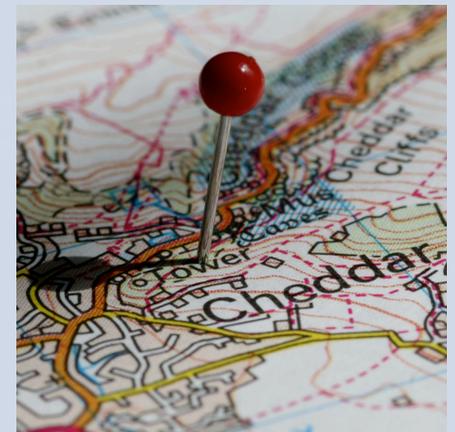
+ Where do we begin?

- Most faculty start by selecting a textbook.

If my colleagues and I all use the same textbook,
what am I adding to this class?

- A better way: Backward design

Outcomes → Assessments → Learning → Resources



+ How will this change things?

Instructors: Sage on the Stage → Guide on the Side

- In higher education, we typically teach the way we were taught
- Our assessment techniques lend well to lecturing (rote memorization, rote procedural demonstration) ...but "real life" doesn't work like that!

Students: Passive → Active learners

- Resistance and complaints: "But you are supposed to teach me!"

+ Let's go!

Working in small groups, discuss your current classroom situation:

- What do you like about your course? What works well?
- What would you like to improve? What are your biggest frustrations?

00:15:00⁰⁰⁰

+ Use the Right Tool for the Job: Out-of-Class Resources

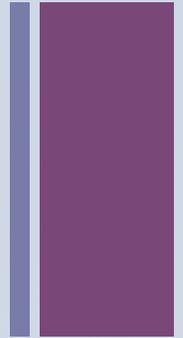
- Video lectures
- Narrated screen captures
- Online and print readings
- Simulations
- Student-created content



What else??

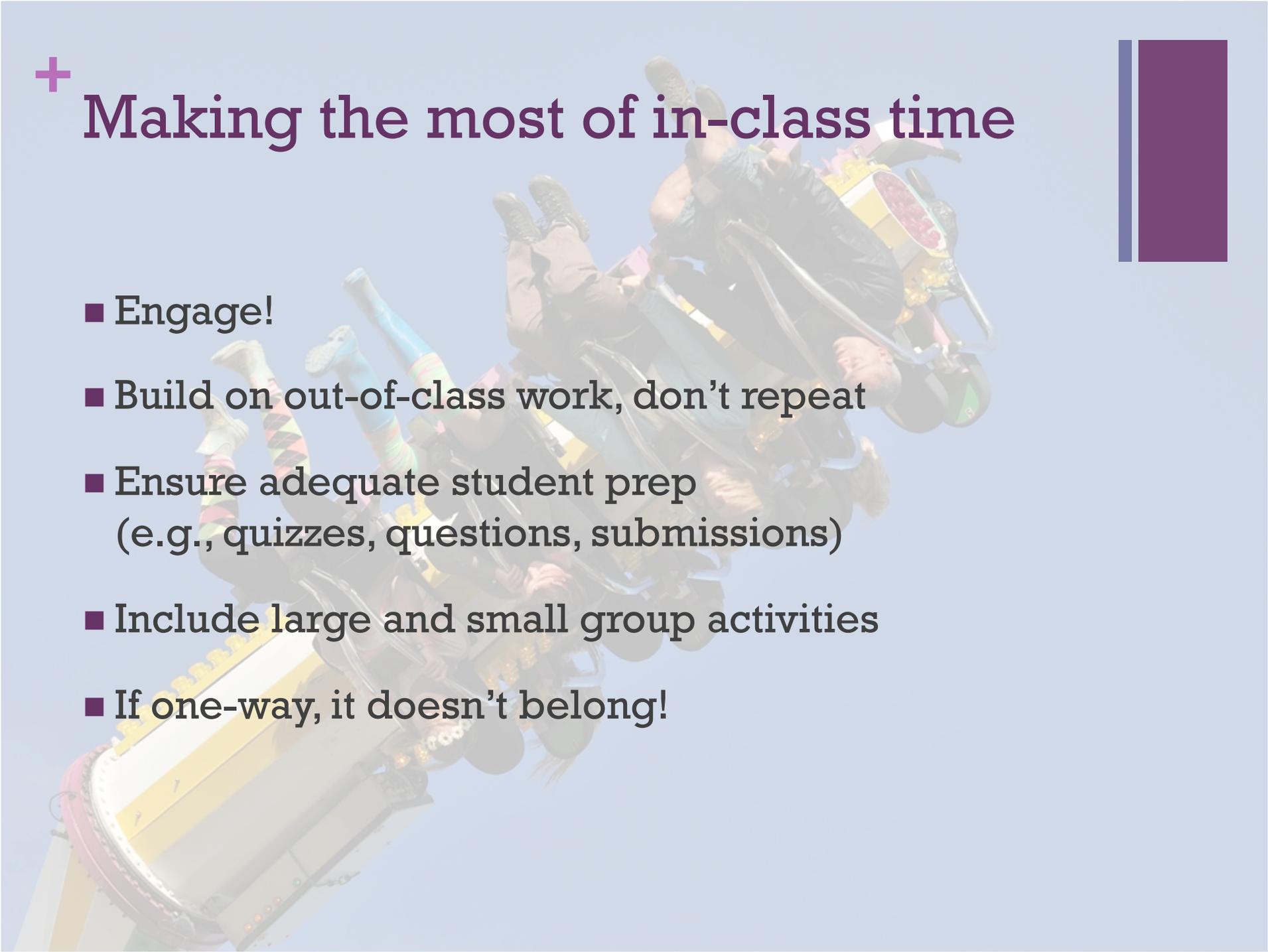
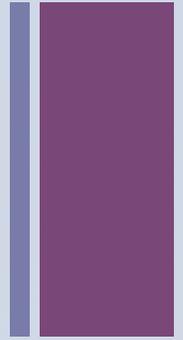
+ Resource Rules of Thumb

- Chunk!
- Optimize sound quality
- Watch file size
- Watch costs
- Be platform-independent
- Make sure resources are accessible



+ Making the most of in-class time

- Engage!
- Build on out-of-class work, don't repeat
- Ensure adequate student prep (e.g., quizzes, questions, submissions)
- Include large and small group activities
- If one-way, it doesn't belong!



+ Some possibilities...

- Small and large group discussion
- Guided homework
- Problem-based learning activities
- Case-based activities
- Role playing
- Debates
- Question → Think → Poll → Pair/Discuss
→ Re-poll → Explain/Summarize → Repeat



What else??

+ Let's go!

Working in small groups, discuss your current classroom situation:

- Share your initial thoughts for how you might flip your classrooms
 - How will this improve your course?
 - What will you need to accomplish your new plan?
 - What worries you?

00:15:00⁰⁰⁰

+ Copyright and IP

Under copyright law, if you don't own the copyright to a work, you cannot do the following without permission from the copyright holder:

- Reproduce copies of the work
- Create derivative works based on the work
- Distribute copies of the work
- Perform the work publicly
- Display the work publicly

Resource - http://www.libraries.psu.edu/psul/lls/students/using_information.html

+ Copyright and IP: “Fair Use”

The Four Factors – Courts consider:

- The purpose and character of the use, including whether such use is of commercial nature or is for nonprofit educational purposes;
- The nature of the copyrighted work;
- The amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- The effect of the use upon the potential market for or value of the copyrighted work.

Resource - http://www.libraries.psu.edu/psul/lls/students/using_information.html

+ Copyright and IP

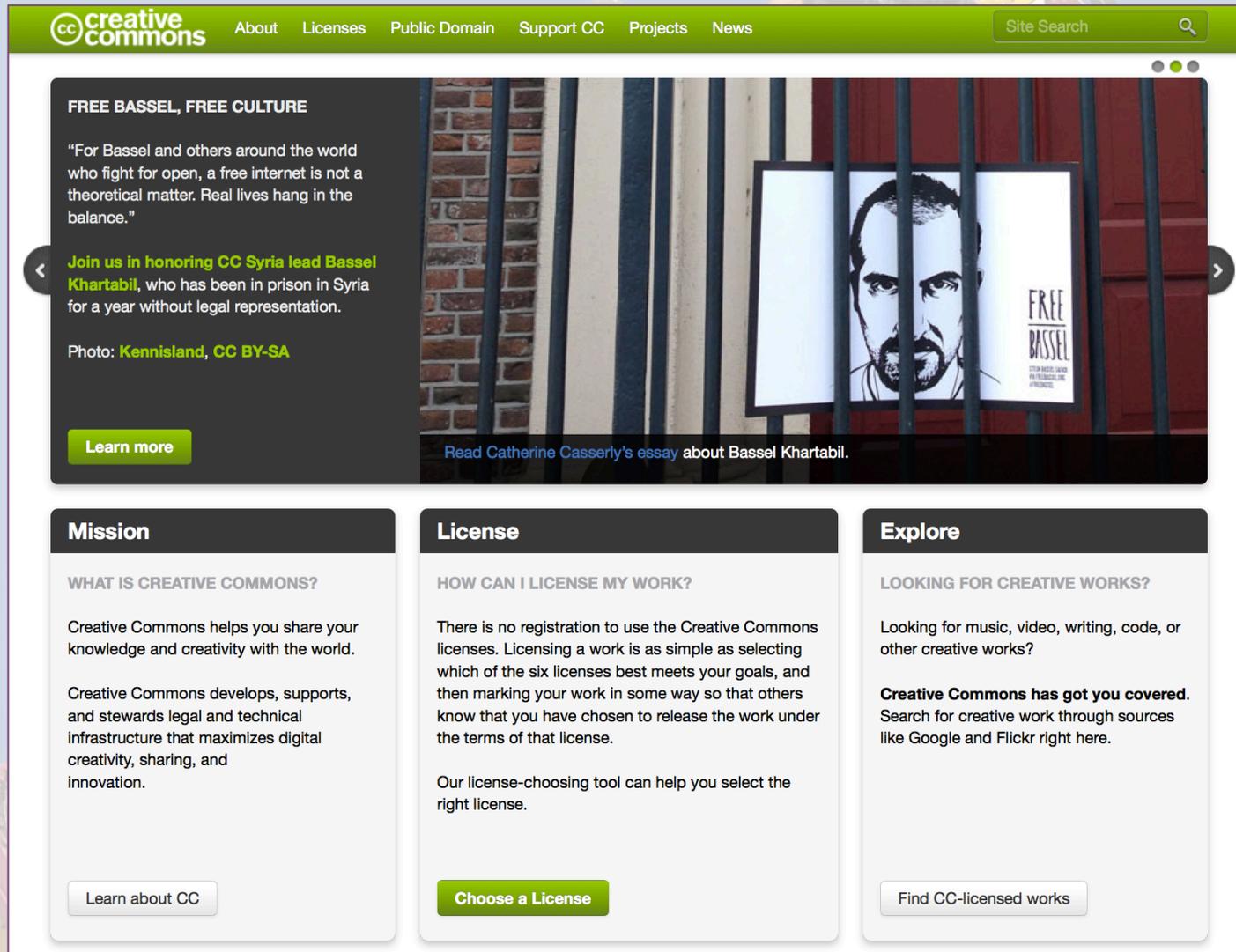
So...Your considerations:

- What is it?
- Why you are using it?
- When was it created?
- How much you are using?
- What does the copyright owner want?
- What is the potential market value?
- **Ethics!**

Resource - <http://tlt.its.psu.edu/teach-act/>



Your best bet: Creative Commons



The screenshot shows the Creative Commons website homepage. At the top is a green navigation bar with the Creative Commons logo and links for About, Licenses, Public Domain, Support CC, Projects, and News. A search bar is on the right. Below the navigation is a large featured article titled "FREE BASSEL, FREE CULTURE" with a quote and a call to action to join in honoring CC Syria lead Bassel Khartabil. Below this are three columns: Mission, License, and Explore, each with a heading, introductory text, and a button to learn more or choose a license.

creative commons About Licenses Public Domain Support CC Projects News Site Search

FREE BASSEL, FREE CULTURE

"For Bassel and others around the world who fight for open, a free internet is not a theoretical matter. Real lives hang in the balance."

Join us in honoring **CC Syria lead Bassel Khartabil**, who has been in prison in Syria for a year without legal representation.

Photo: **Kennisland, CC BY-SA**

[Learn more](#)

[Read Catherine Casserly's essay](#) about Bassel Khartabil.

Mission

WHAT IS CREATIVE COMMONS?

Creative Commons helps you share your knowledge and creativity with the world.

Creative Commons develops, supports, and stewards legal and technical infrastructure that maximizes digital creativity, sharing, and innovation.

[Learn about CC](#)

License

HOW CAN I LICENSE MY WORK?

There is no registration to use the Creative Commons licenses. Licensing a work is as simple as selecting which of the six licenses best meets your goals, and then marking your work in some way so that others know that you have chosen to release the work under the terms of that license.

Our license-choosing tool can help you select the right license.

[Choose a License](#)

Explore

LOOKING FOR CREATIVE WORKS?

Looking for music, video, writing, code, or other creative works?

Creative Commons has got you covered. Search for creative work through sources like Google and Flickr right here.

[Find CC-licensed works](#)

+ Online Accessibility Basics

The screenshot shows a web browser window displaying the Penn State AccessAbility website. The browser's address bar shows the URL accessibility.psu.edu. The page features the Penn State logo and the title "AccessAbility: Accessibility and Usability at Penn State". A navigation menu includes links for Home, Table of Contents, Events List, News Blog, and What to Fix. The main content area is titled "About this Site" and is divided into three columns: "News and Events", "What to Fix", and "Common Tools".

Quick Links

- [Table of Contents](#)
- [Accessibility in Common Tools](#)
- [Events List](#)
- [News Blog](#)
- [Target Audiences](#)
- [Testing Accessibility](#)
- [Web Page Accessibility](#)
- [What to Fix](#)
- [Video Captioning](#)

To post a comment or blog entry, please [Login to this site](#) with your Penn State Access Account.

News and Events

General Updates

- **Upcoming Events**
- **News Updates**
- **Syllabus Statement Language**
- **Penn State Accessibility Statement**
- **Penn State Accessibility Implementation Plan**
- **Accessibility Practice Groups**

NFB Agreement

What to Fix

Top Blockers

- **Image ALT Tag Tips**
- **Page or Document Titles**
- **Headings and Sub Headings**
- **Link Text**
- **Table Headers and Captions**
- **Form Labels**
- **Video Captions and Audio Transcripts**
- **Triage Testing/Remediation Process**

Common Tools

- **ANGEL**
- **Blogs**
- **Microsoft Office (Word, PowerPoint, Excel)**
- **PDF Files**

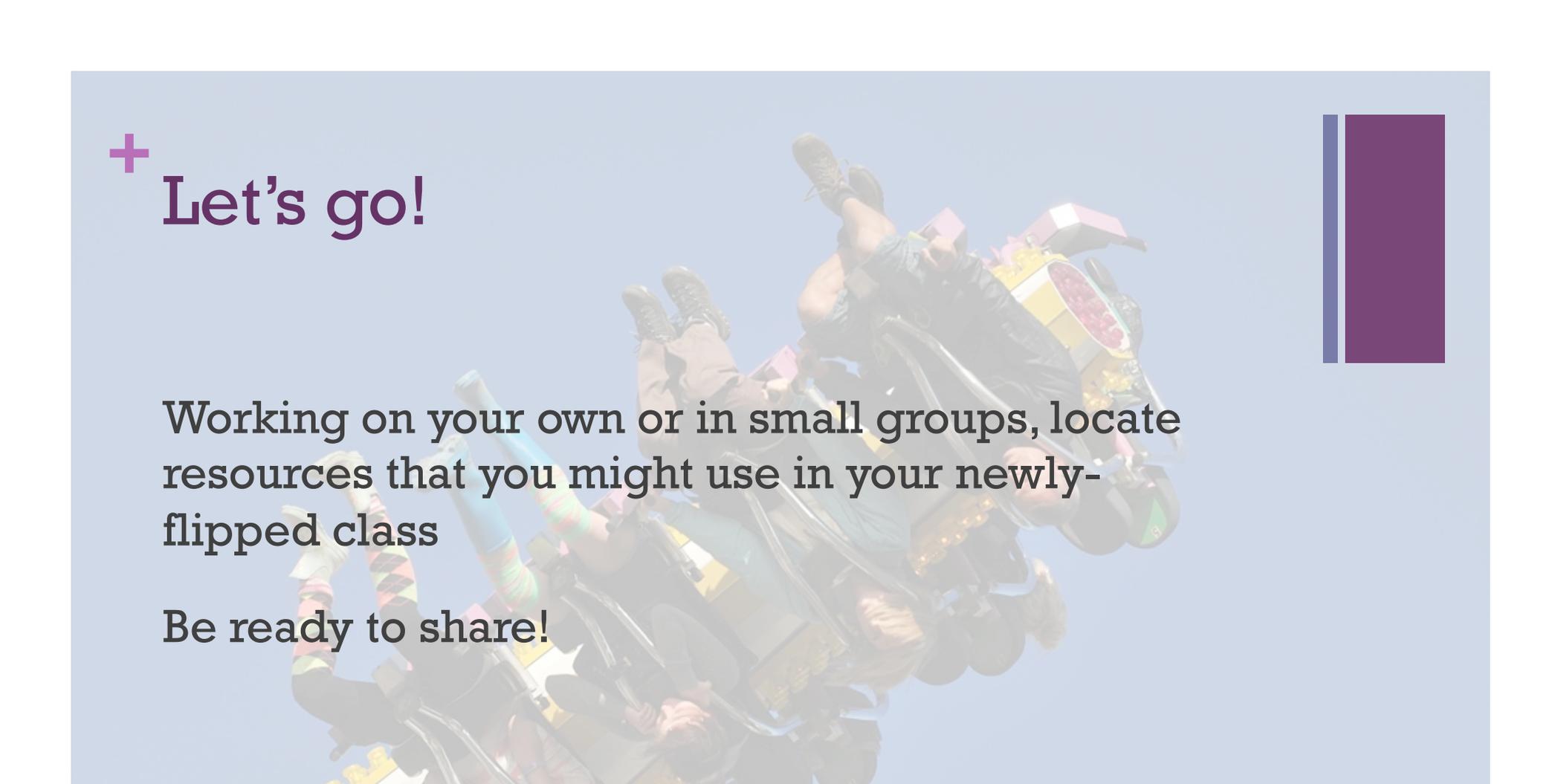
[More Common Tools...](#)

Web Developers

- **Web Page Accessibility Reference**
- **Testing Accessibility**

+ Resources to get you started

- [Merlot](#)
- [Khan Academy](#)
- [TED Talks](#)
- [Academic Earth](#)
- [Teachers' Domain \(College edition\) / PBS Learning Media](#)
- [FREE](#)
- [National Science Digital Library](#)
- [Thinkfinity](#)
- [The Internet Archive](#)
- [YouTube](#)
- News sites: [NBC Learn](#), [NY Times](#)
- [Publishers!](#)



+ Let's go!

Working on your own or in small groups, locate resources that you might use in your newly-flipped class

Be ready to share!

00:30:00⁰⁰⁰

+ DIY? What you'll need...

- Lecture capture system (e.g., Tegrity)
- Computer
- Screencasting software like [Jing](#) or Captivate
- Drawing tablet (e.g., [Wacom Bamboo](#)) and/or presentation software that allows you to “draw” on the screen
- Microphone ([USB preferred](#) over built-in)
- Webcam
- Server space to store/serve files
- LMS or [web site](#) where students can access content

+ Show time!

1. Review your course content and fix any broken hyperlinks, images, etc.
2. Provide your students with complete info about the online components of your course – location, navigation, who to contact for technical support, etc.
3. Monitor online discussion or question forums
4. Analyze quiz, survey, or minute essays before class
5. Gather student feedback along the way –
What is or isn't working?
6. Review/revise your course ASAP – before you forget!

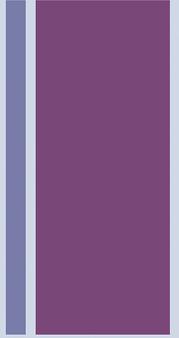
+ Potential Problems and Pitfalls

- Complaints and resistance
- Disappearing resources
- Technology failures
- Lack of student preparation
- Crickets in the classroom
- Cheating and plagiarism



What else
worries you??

+ Questions?



+ Acknowledgements

- Background Photo Credit: <http://www.flickr.com/photos/34446650@N04/5829745435/>
- Pin-on-map Photo Credit: <http://www.flickr.com/photos/11738433@N03/4092900623/>
- Question Mark Sign Photo Credit: <http://www.flickr.com/photos/35034361412@N01/2300558555/>
- Notepad Photo Credit: <http://www.flickr.com/photos/60364452@N00/1803278949/>
- Mazur, E. (2012). Flip the classroom and catalyze the learning. Educause Live! Webinar. See <http://www.educause.edu/events/educause-live-flip-classroom-and-catalyze-learning>
- Ming-Zher Poh, Swenson, N. C., & Picard, R. W. (2010). A Wearable Sensor for Unobtrusive, Long-Term Assessment of Electrodermal Activity. *Biomedical Engineering, IEEE Transactions on*, 57(5), 1243–1252. doi:10.1109/TBME.2009.2038487