

Flipping the Classroom: What, Why, How, and What Next?

Tuesday 19 July 2022
1200-1300 Pacific Time

Presentations by:

Fred Wehling

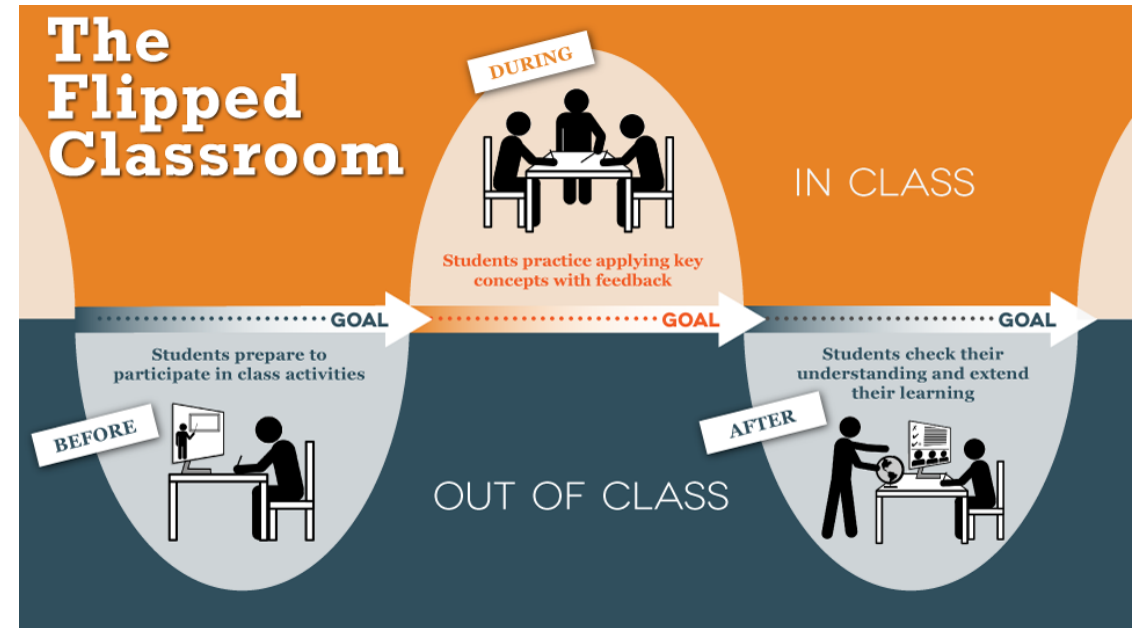
Graduate Education Advancement Center

Ana Eckhart

Graduate Education Advancement Center

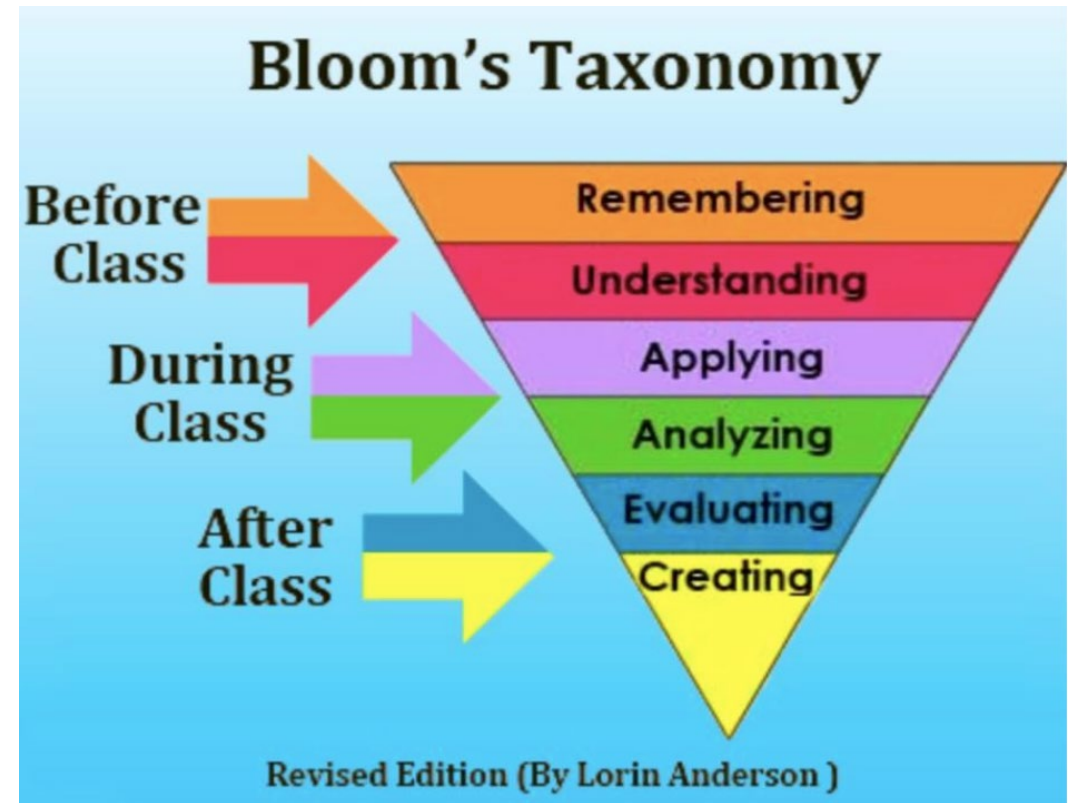
Christopher Twomey

National Security Affairs Department



What is a Flipped Classroom?

- A flipped classroom inverts the time, space, and social dimensions of teaching and learning
 - Students acquire knowledge asynchronously and individually before class
 - Students apply knowledge synchronously and interactively during class
 - “Homework” becomes “classwork” and vice versa
- Increasingly used in both K-12 and higher education
- Student centered approach – instructors’ main roles are guide and mentor



Benefits of Flipping

- Requires active learning both inside and outside the classroom
- Promotes deeper learning by giving students more control and responsibility
- Increases student interaction and peer learning
- Enables more timely feedback for both students and instructor
 - Gaps in learning become more apparent faster
 - In-class applications act as low- or no-stakes assessments
- See recommended resources for research on benefits



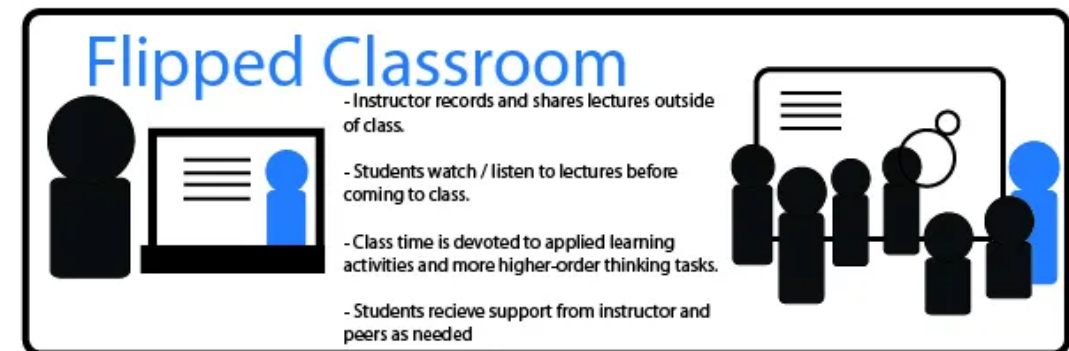
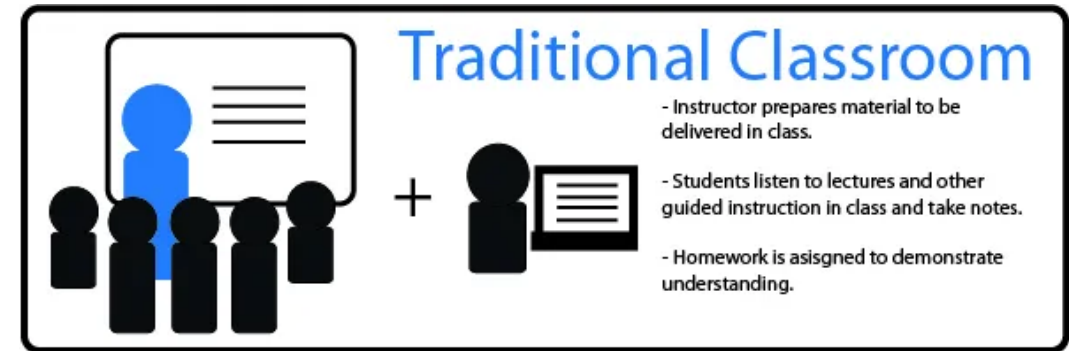
To Flip or Not To Flip?

- Works well with lecture or lecture/lab format courses
- Likely not appropriate for:
 - Research seminars
 - Sensitive or classified content
- Course redesign requires work
 - Clear, observable learning objectives
 - Revised syllabus, course design, & grading
 - Reading guides and/or videos
 - Don't have to video entire lectures
 - Knowledge checks before class (best practice)
 - Learning activities in class
- Many benefits, but not easier



Flipping Assessments

- Assess early and often
 - Require short, auto-graded self-assessment quizzes before class
 - Use spaced and repeated practice, not “fire and forget”
 - Encourage persistence & perseverance
 - Build confidence in content knowledge, then comprehensively assess application (exam or project)
- How do you know it’s working?
 - Encourage students to post questions or “muddiest points” before class, respond in class or in videos
 - Observe in-class activities for gaps in knowledge or content coverage
 - Use reflections and metacognition to evaluate learning impact
 - Some students may not like the flipped approach – don’t be discouraged by a few negative comments.



Tips for Flipping: Preparation

- Start small
 - Start with just a lesson or section of a course
- Choose a lesson, section, or class for which you:
 - ✓ Already have some content developed
 - ✓ Feel that would benefit from a more in-depth approach
 - ✓ Have adequate time to prepare



Tips for Flipping: Communication

- Explain class format to students upfront
- Provide guidance and context to material and activities that students are completing outside of class
- Communicate clear expectations for in class time so that students are prepared
- Be mindful of student workload
- Ask for feedback



Tools for a Flipped Classroom

- Leverage Sakai!
 - Lessons tool
 - Structure outside of class time
- Video recording and editing
 - Zoom or Teams
 - Microsoft Stream
 - Camtasia
 - GEAC video support
- Formative assessment/Knowledge checks
 - Microsoft Forms
 - Zoom polls
 - Question tool in Sakai

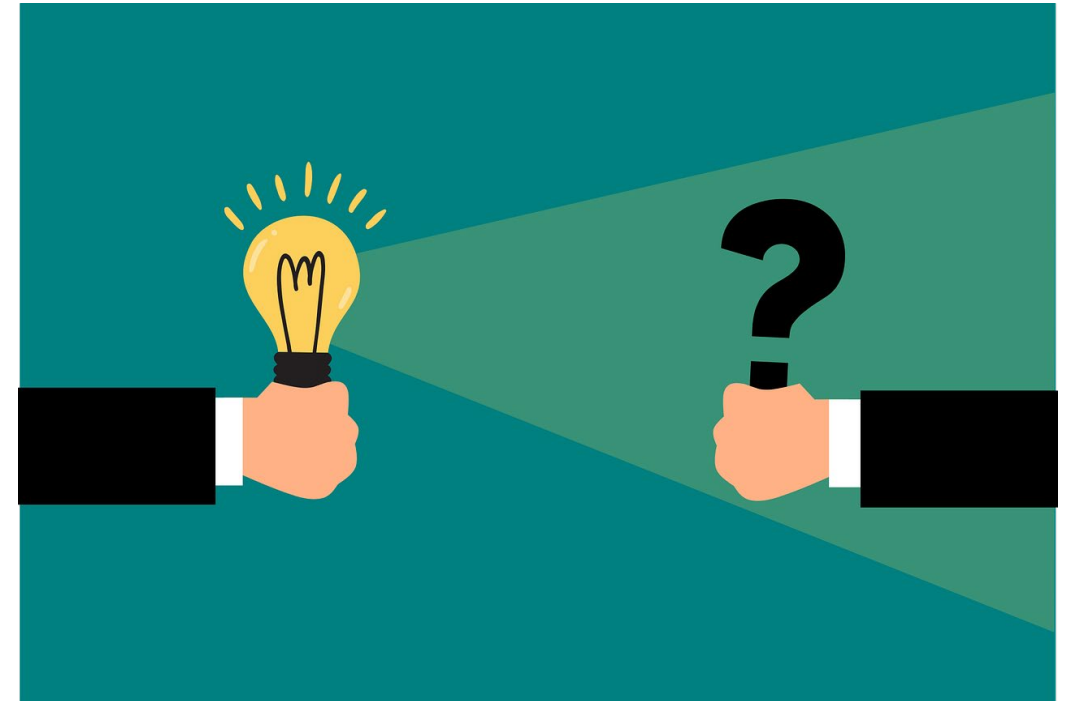


Support for Flipping your class

- **GEAC Instructional Design Team**

GEACInstrDesign@nps.edu

- Assist with identifying material to flip
- Provide support with adapting materials
- Connect with media development team to develop flipped content



Recommended References

- Al-Samarraie H., Shamsuddin, A., & Zahranj A. I. (2020). A flipped classroom model in higher education: A review of the evidence across disciplines. *Educational Technology Research and Development*, 68(10), 171051. <https://doi.org/10.1007/s11423-019-09718-8>
- Bergmann, J., & Sams A. (2012). *Flip your classroom: Reach every student in every class every day*. International Society for Technology in Education.
- Brame C. (2013). *Flipping the classroom*. Vanderbilt University Center for Teaching. <https://cft.vanderbilt.edu/guidesubpages/flipping-the-classroom/>
- Honeycutt, B. (2013, March 25). Looking for 'flippable' moments in your classroom. Faculty Focus. <https://www.facultyfocus.com/articles/blended-learning/looking-for-flippable-moments-in-your-class/>
- Makice K. (2012, April 13). *Flipping the classroom requires more than video*. Wired. <https://www.wired.com/2012/04/flipping-the-classroom/>
- Michigan State University Office of Medical Education Research and Development (2022). *why, and how to implement a flipped classroom model*. <https://omerad.msu.edu/teaching/teaching-skills-strategies/27teaching/162-what-why-and-how-to-implement-a-flipped-classroom-model>
- Persky A. M., & McLaughlin, J. E. (2017). The flipped classroom: From theory to practice in health professional education. *American Journal of Pharmaceutical Education*, 81(18), 181-188. <https://doi.org/10.5688/ajpe816118>
- Sosa Diaz, M. J., Guevara Antequerra J. G., & Cerezo Pizarro, M. C. (2021). Flipped classroom in the context of higher education: Learning, satisfaction, and interaction. *Educational Sciences*, 8(1), 416. <https://www.mdpi.com/2227-7102/11/8/416>
- University of Texas at Austin Center for Teaching and Learning (2022). *Flipped classroom*. <https://ctl.utexas.edu/instructional-strategies/flipped-classroom>
- University of Washington Center for Teaching and Learning (2022). *Flipping the classroom*. <https://www.washington.edu/teaching/topics/engaging-students-in-learning/flipping-the-classroom/>



THANKS!

GEAC is here to help!

Phone (831) 656-3029

Email GEACInstrDesign@nps.edu