DEVELOPING A FLIPPED LESSON PLAN: PLANNING FOR ACTIVE ENGAGEMENT

RAVISHA MATHUR, SILVIA HEUBACH, VICTORIA BHAVSAR, LAURA SULLIVAN-GREEN
CALIFORNIA STATE UNIVERSITIES: SAN JOSE, POMONA, LOS ANGELES

https://tinyurl.com/yytbadq7

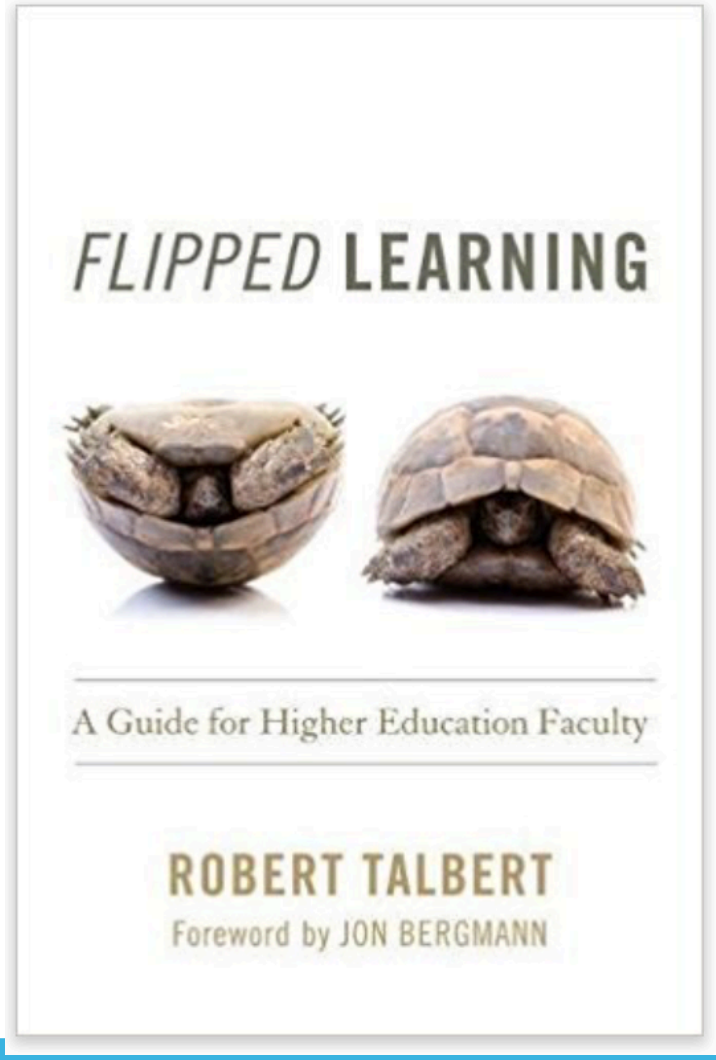
QUESTION

What motivates you to flip a class?

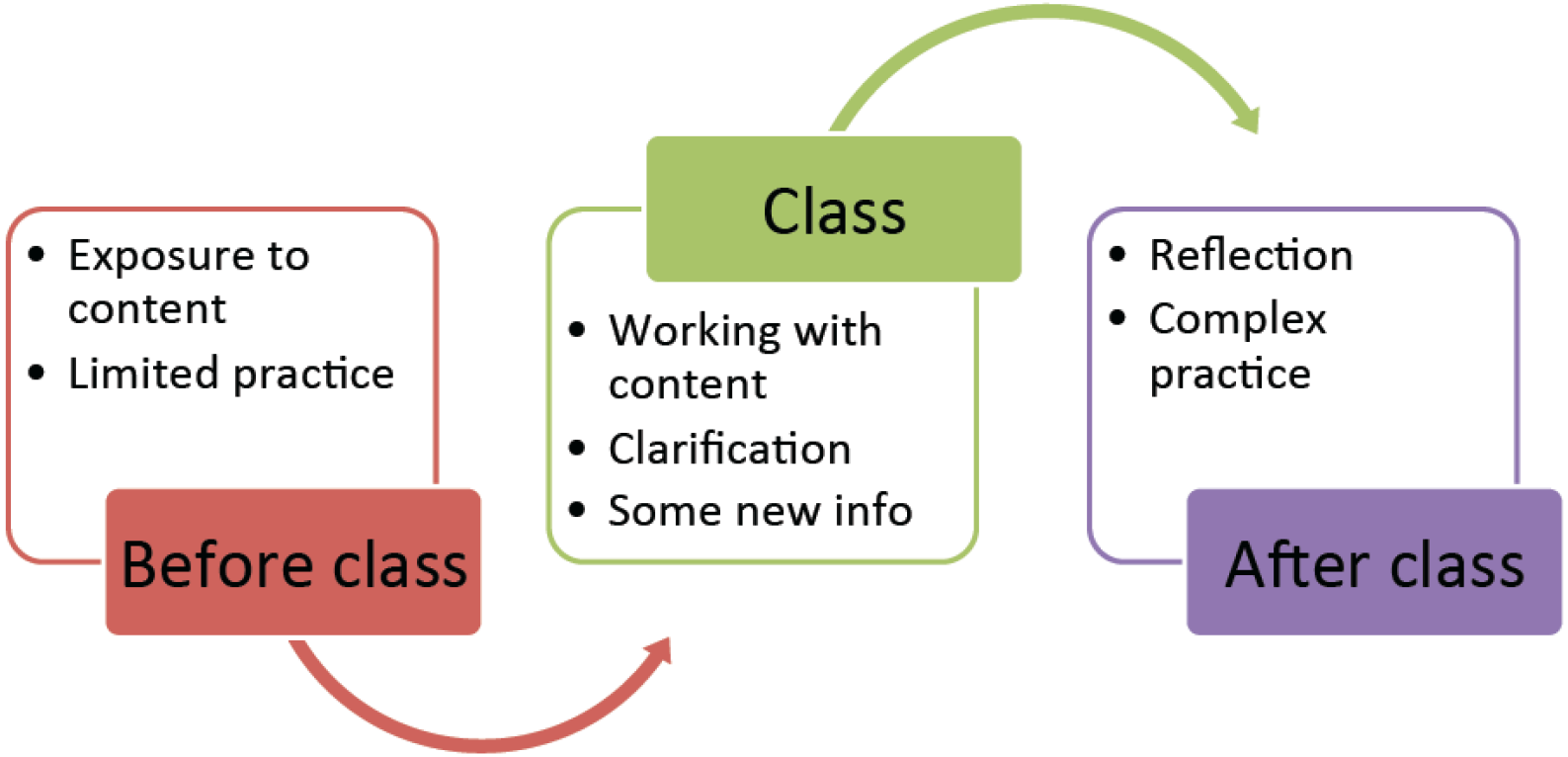


TALBERT'S APPROACH

Robert Talbert (2017). *Flipped Learning: A Guide for Higher Education Faculty.*

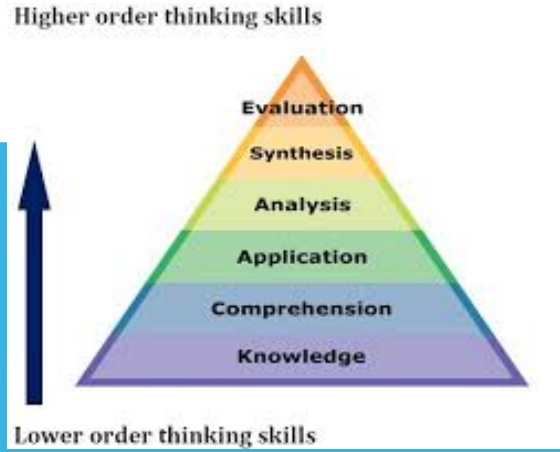


COMPONENTS OF THE FLIPPED MODEL



STEPS OF FLIPPED LESSON PLANNING

1. Create a list of learning outcomes (LOs) and designate them as basic or advanced based on cognitive complexity (Bloom's taxonomy).
2. Develop a plan of in-class activities linked to the advanced LOs. Map out the details.
3. Plan pre-class activity linked to the basic LOs; create a guided practice document.
4. Design and construct any post-class activities intended for students (reinforce basic and advanced LOs).



START WITH A TOPIC….

Pick a topic that you will teach right after this conference.



STEP1: DEVELOP LEARNING OUTCOMES

- Mapping out learning outcomes- basic and advanced
  - Unambiguous
  - Action oriented
  - Measurable
  - Comprehensive
  - Minimal
- Basic – linked to preparatory activities
- Advanced- linked to group and post space activity



STEP 1: DEVELOP LEARNING OUTCOMES

Basic

Vague: Students will know the elements on the periodic table of elements.

Clear: Students will be able to identify the elements of the periodic table based on their symbols.

Advanced

Vague: Students will learn the programming language, Python.

Clear: Students will use Python to complete a data mining analysis.



STEP 1: DEVELOP LEARNING OUTCOMES

Spend five minutes writing one basic and one advanced LO for your topic.

Check with your neighbor for clarity and complexity!

Challenges in writing these LOs?



STEP 2: PLAN EFFECTIVE IN-CLASS ACTIVE LEARNING STRATEGIES

What's your favorite active learning activity?



STEP 2: PLAN EFFECTIVE IN-CLASS ACTIVE LEARNING STRATEGIES

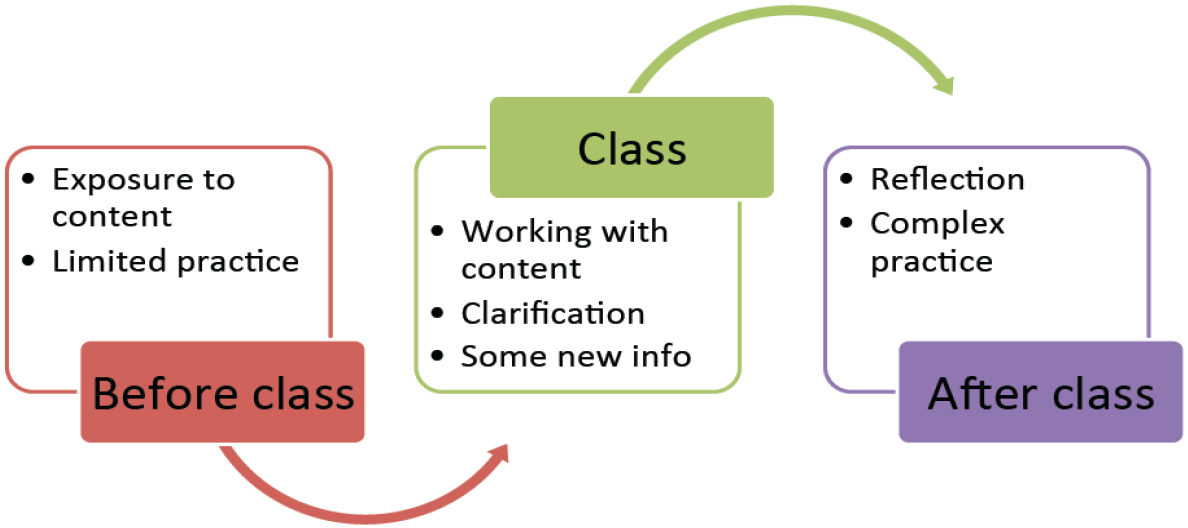
- Lots of examples out there: Strategies
  - https://tinyurl.com/yaneyqub
- Lots of tools: Tools
  - https://tinyurl.com/y9kp9hhx

- What active learning strategies work best with advanced LOs for your topic?



SOME THINGS TO CONSIDER FOR STEP 3

3 hours in class = 6 hours outside
Prep work ~1 hour per week.
Advanced work ~2-4 hour per week.
Leaves 1-3 hour for projects and studying.



STEP 3: PRE-CLASS ACTIVITIES AND GUIDED PRACTICE DOCUMENT

- Guided practice template

- Key components of the guided practice
  - Overview
  - Learning outcomes
  - Preparatory activities
  - Exercises/tasks



STEP 4: DESIGN POST-CLASS ACTIVITIES AND REINFORCE LEARNING OUTCOMES

What do you do currently after class to reinforce course content taught during class?

How do you modify your existing homework assignment to be advanced practice? Be mindful about what needs additional practice after class.

For your advanced LO, what activities provide continued, developmental engagement with those LOs?

Caution: Make sure that the hardest work happens in class, while you're around to help! Post-class is about reinforcement.



STEP 4: DESIGN POST-CLASS ACTIVITIES AND REINFORCE LEARNING OUTCOMES

Some options:

- Formal writeup of in-class work
- Post-class project
- More practice (good for quantitative courses)
- Ideas for reflection assignments:
  - Identify methods of learning that worked well or not
  - Learning journal – motivation, affect, & behavior
  - Writing that helps connect ideas
  - Planning upcoming work – project milestones and future plans



CHALLENGES WITH DEVELOPING AND IMPLEMENTING LESSON PLANS

- Always takes longer than you think it does!
- Student accountability
- Not everything works in a flipped class… especially the first time
- Some students will resist, but that is ok



BEST PRACTICES AND RECOMMENDATIONS

- Provide purpose!
- Be organized and clear
- Pre-class activities at the lower level of the taxonomy with reasonable workload
- Small number and variety of activities
- Provide activity rationale
- Consider time commitment
- Take good notes of implementation



LAST THOUGHTS

Part 1: What is a major question or concern that you still have about flipping a lesson?

Part 2: What would your inner flip expert tell you to do about that?



ACKNOWLEDGEMENTS AND REFERENCES

This material is based upon work supported by the U.S. Department of Education, First in the World Grant P116F150112. Any opinions, findings, conclusions or recommendations expressed are those of the authors and do not necessarily reflect the views of the U.S. Department of Education.

Cronhjort, M., Filipsson, L., & Weurlander, M. (2018). Improved engagement and learning in flipped-classroom calculus. *Teaching Mathematics and its Applications: An International Journal of the IMA*, 37(3), 113–121.

Davis, N. L. (2016). Anatomy of a flipped classroom. *Journal of Teaching in Travel & Tourism, 16* (3), 228-232. doi: 10.1080/15313220.2015.1136802

Talbert, R. (2017). *Flipped Learning: A Guide for Higher Education Faculty*. Sterling, VA: Stylus Publishing