Course Redesign:
Why you might want to try it

"Flipping" the College Classroom

JULEE WALDROP, DNP, FAANP

PROFESSOR SCHOOL OF NURSING

Topic Options

Description/Definition of “flipping method”

Theoretical underpinnings

Myths about “flipping your classroom”

What is the quality of evidence to support flipping in the college classroom

Does it really improve student outcomes - Summary of current evidence from literature

Definitions

"Pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter" (FLN, 2014)

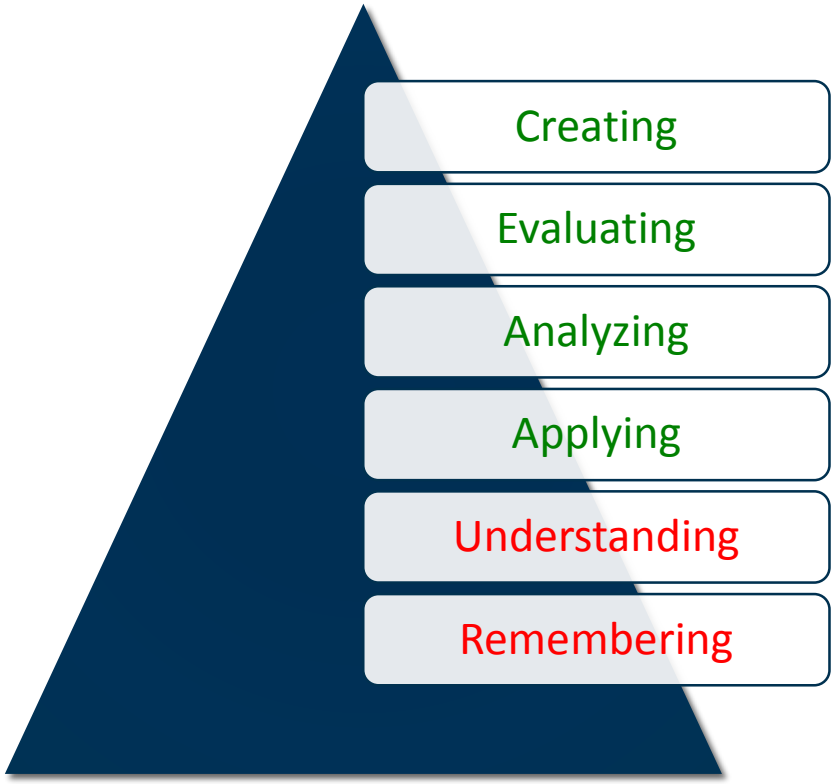
- Flexible Environments
- Learning Culture
- Intentional Content
- Professional Educator

Definitions

"An instructional strategy..that reverses the traditional educational arrangement by delivering instructional content, often online, outside the classroom. It moves activities, including those that may have traditionally been considered homework, into the classroom." (Wikipedia, 2015)

"An instructional technique focusing on the creation of a student-centered learning environment that leverages technology and emphasizes application and collaboration." (Fitzpatrick, 2012)

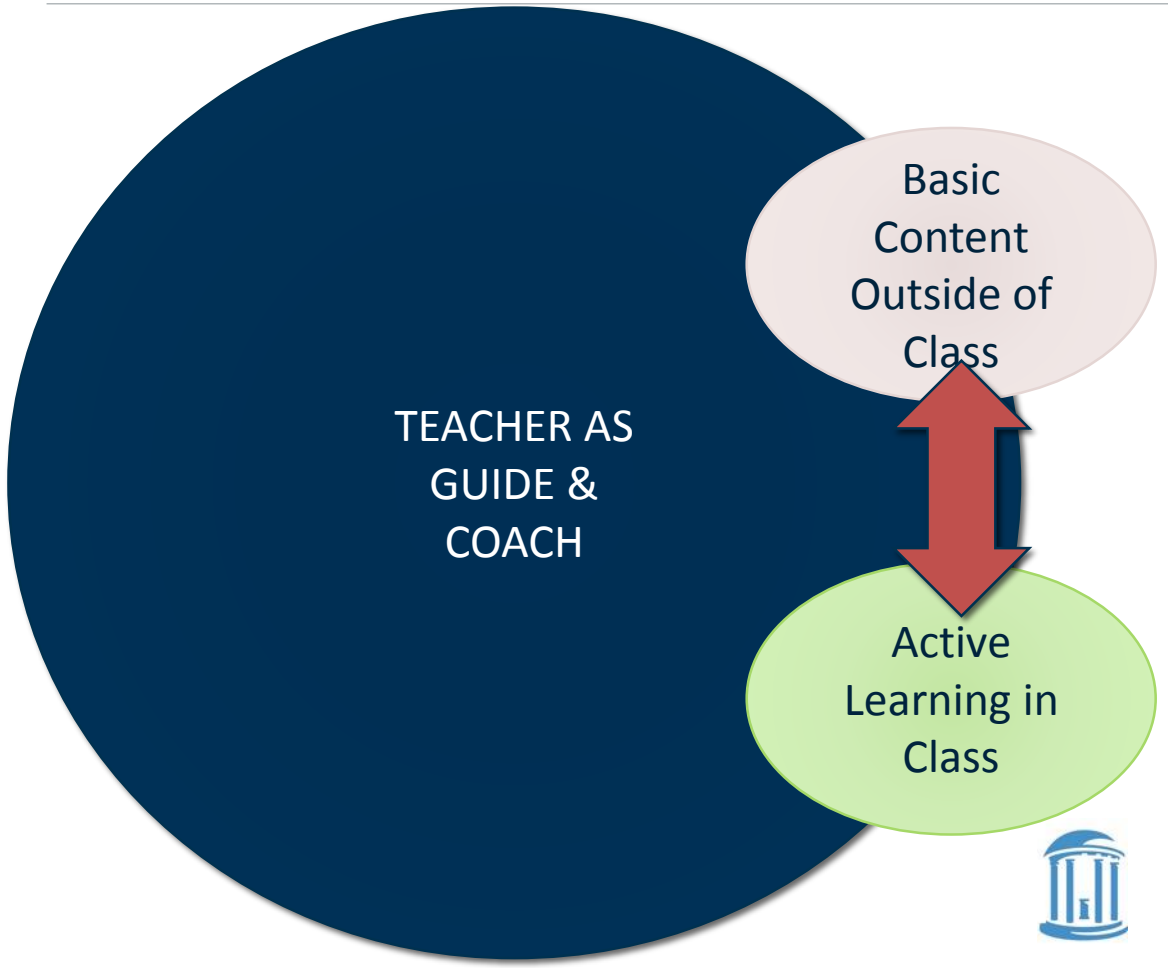
Differences in Where Learning Occurs between Traditional vs Flipped Class



Method	Before Class	During Class
Traditional	Surface learning (assigned readings)	Surface learning: listening to lecture Taking notes
"Flipped"	Construct understanding via assignments: videos, reading, preparing/submitting artifact	Construct understanding: answering questions (quiz – discussion; peer instructions)

Van Vliet et al (2015). CBE (Cell Biology) – Life Sciences Education, 14, 1-10.

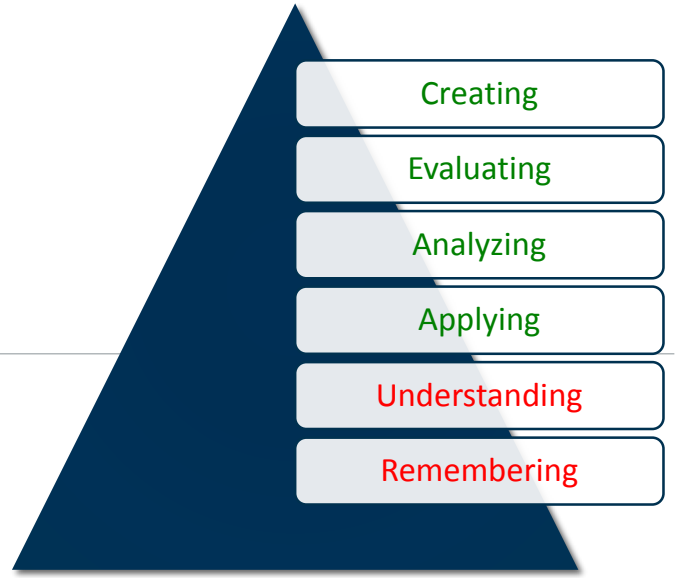
4 Simple Principles



- Teacher as guide/coach
- Assigning students to work through the basic course content outside of class time
- Aligning pre-class with in-class
- Using class time for active learning

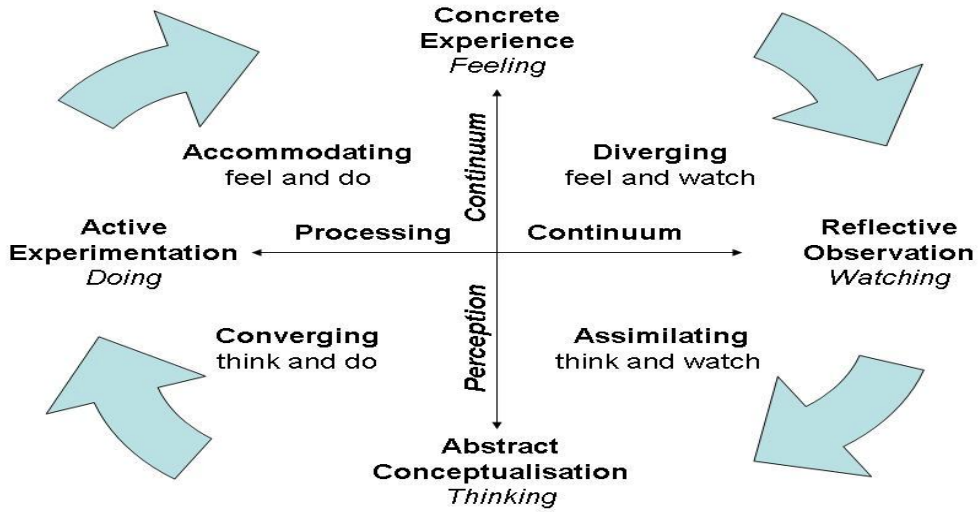
Menu

Theoretical Underpinnings



Bloom's Taxonomy

Active Learning based on Experiential Learning (Dewey, Kolb)



Transformative Learning (Mesirow)

Menu

Myths

Must be an expert in technology

Will eliminate the need for a qualified teacher in the classroom

If lectures are online students won't come to class

Won't be able to get to all the required content

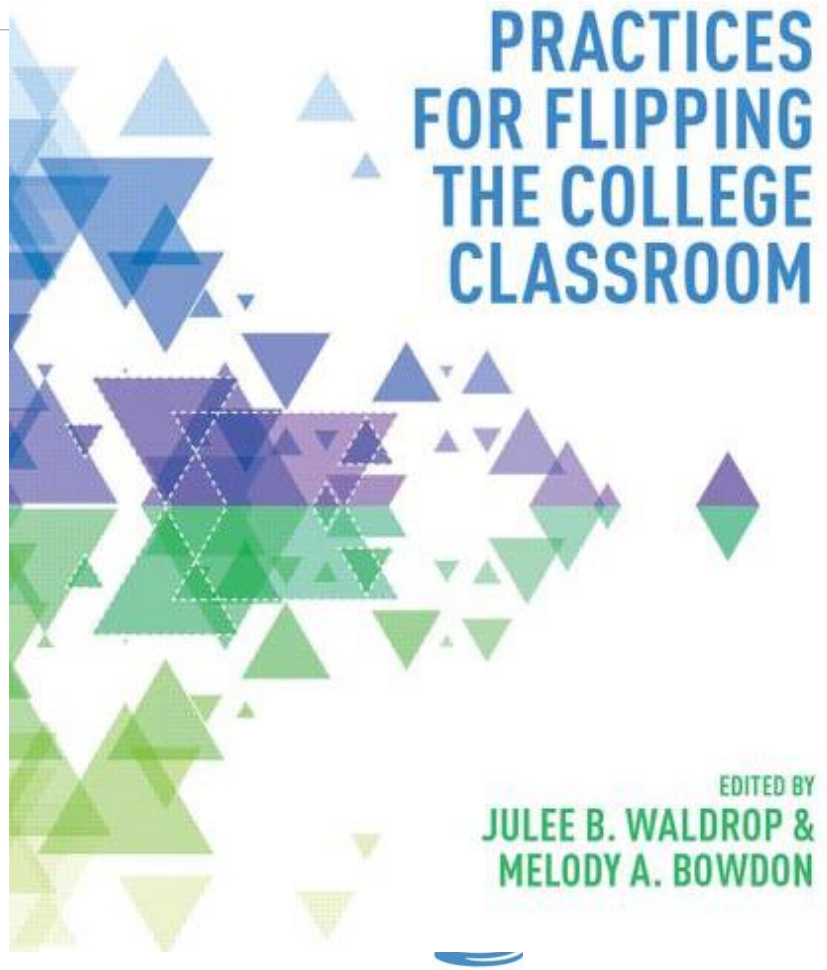
Students will be "mad" they have to "double" their work time in the class

"I paid good money for you to teach me!"

Menu

Quality of the Evidence (2010-2013)

- Anecdotal
- Informal observations
- Reflections on the experience
- How to / DIY
- Case studies



- Review of Evidence
- 8 systematically evaluated examples
  - Chemistry
  - Math
  - Nursing
  - History
  - Psychology
  - Marketing
  - Economics
  - Creativity
- Student Practices
- Author Reflections

Quality of the Evidence (2014-2015)

Increasing amount of systematic evaluation in many disciplines using Educational Research Designs

- Comparing 2 sections of same course (one flipped, one not)
- Comparing student performance over multiple semesters of teaching (one semester flipped, one not)
- Faculty generated assessments of matched exam question pairs (before and after implementation)
- Monitoring student learning before and after flipped method
- Changes in student perceptions, attitudes, satisfaction and behaviors using student surveys or anecdotal comments
- Faculty reflections

Summary of Quality of Evidence

Improvements
- Controlling for bias
- Using ACT scores to compare groups
- Using valid and reliable learning assessment tools
- Evaluating higher order test questions
- Psychometric testing of instruments

Weaknesses
- Faculty conducting own focus groups
- Faculty developed surveys on student satisfaction
- Post evaluation only
- Small sample sizes

Menu

Current Evidence – Summary

Integrative Review Nursing

Study Characteristics

- 24 studies measured effectiveness with test performance
- Compared to traditional lecture
  - but comparison / control poorly described
- 2 used standardized diagnostic tests
- 12 flipped a whole course

Results

- Flipped out performed tradition (improved as progressed through the course)
- 15 demonstrated statistically significance
- Students Positive perceptions

Bernard (2015) International Journal of Nursing Education & Scholarship12(1): 1-11.

Informal Summary of Results: Students

Learning Styles
- Engagement
- Critical thinking

Academic Achievement
- Improved learning outcomes

Perceptions –
- positive
- Improved student satisfaction
- Usefulness and convenience of online materials (video lectures etc.)

Informal Summary of Results: Teachers

Mental shift needed

Need Agility with facilitating in class activities

Improved quality of teacher-student interaction

Initial Time investment (decreased over time)

Decreased office hour traffic

Encouraged ownership of learning by students

Accommodates range of student abilities and learning styles

Not all subjects may be “flippable”

Menu