

# The Flipped Classroom

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# Core Idea of Flipped Classroom

- Instruction that used to occur in class is now accessed at home, in advance of class.
- Class becomes the place to work through problems, advance concepts, and engage in collaborative learning.
- Instructor's role changes from the *Sage on the Stage* to the *Guide on the Side*



# CHANGING THE CLASSROOM EXPERIENCE

## IMPACT

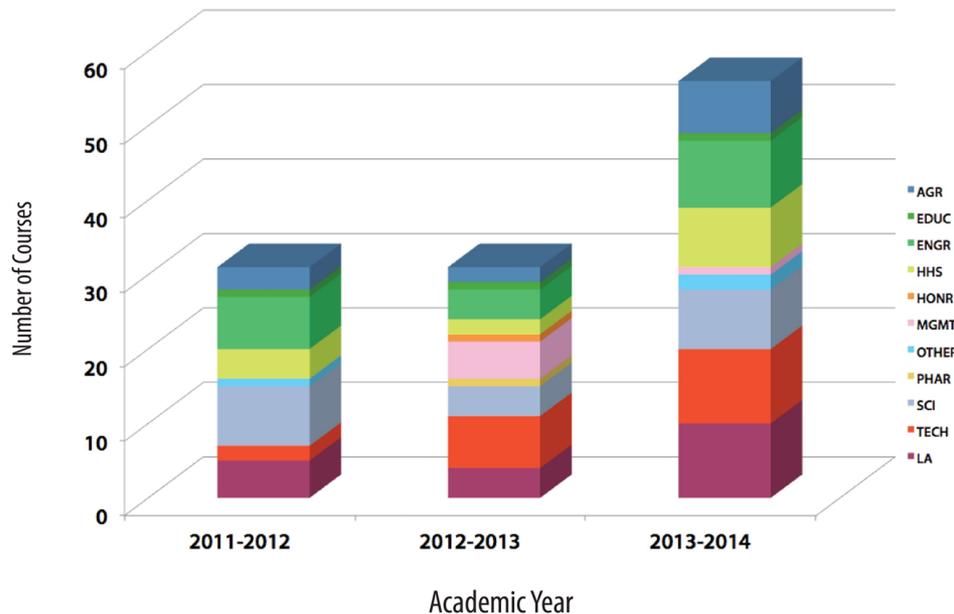
### *Instruction Matters: Purdue Academic Course Transformation*

Two models (about 50% each)

- Flip (online + group work with hands-on activities)
- Supplemental (large lecture + online activities & modules)



COURSES TRANSFORMED BY COLLEGE



- Have redesigned 7 classrooms
- Will break ground for Active Learning Center

# Keys for Flipped Classrooms

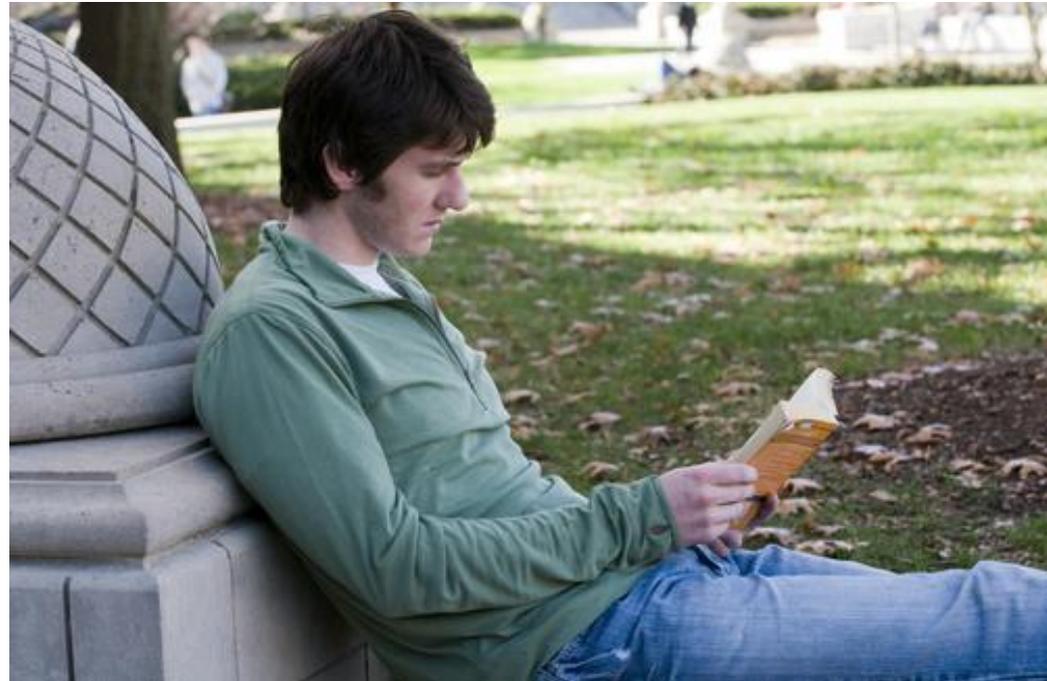
1. You need better space (e.g., SCALE-UP model)



2. Equipment for multimedia instruction
3. Huddle boards to computing stations
4. Online lectures
5. Involved faculty

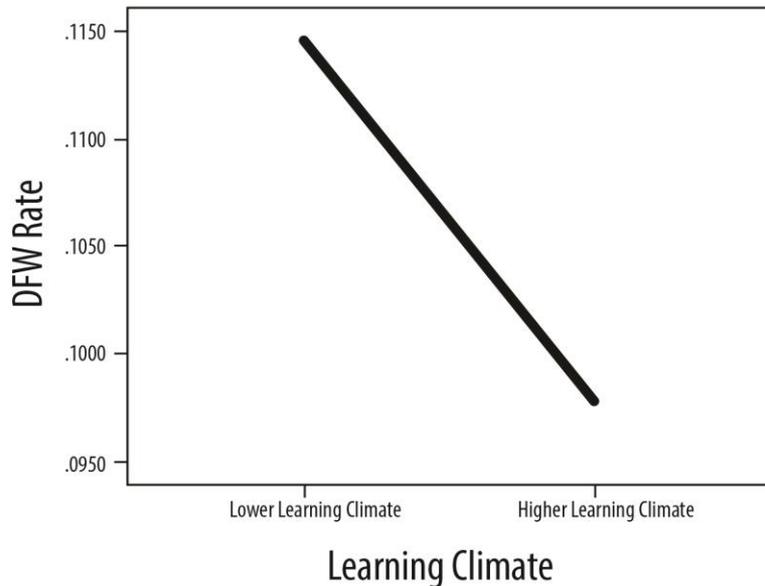
# What we have learned

- Learning climate with active learning is key.
- A better learning climate leads to:
  - Greater perceived competence and lower perceived doubt
  - Improves academic performance, and
  - Lowers DFW rate



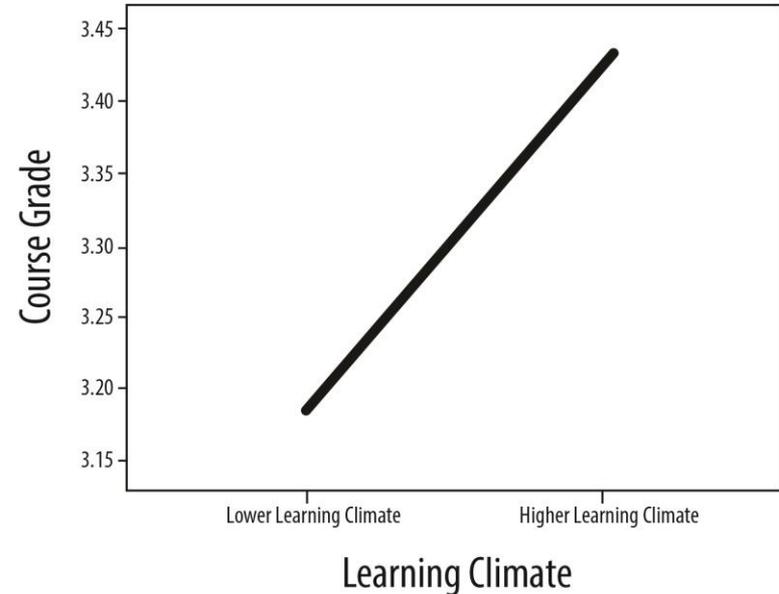
# What we have learned

## Difference in DFW Rate based on Higher and Lower Perceived Learning Climate



There is a significant difference relative to course grades for students who perceive a higher or lower learning climate. Although the effect size is small, when students perceive a more student-centered learning climate they earn better course grades.

## Difference in Grades based on Higher and Lower Perceived Learning Climate



There is a significant difference relative to DFW rate for students who perceive a higher or lower learning climate. Although the effect size is small, when students perceive a more student-centered learning climate they are less likely to drop the course.

# Research Underway

1. Evaluation of Faculty Attitudes and Cultural Change
2. Examination of DFW Rates in IMPACT Courses
3. Student Survey on Learning Climate, Autonomy, Competence, Relatedness, Perceived Transfer of Knowledge
4. Outcomes that are on Higher-Order Dimensions of Bloom's Taxonomy
5. Individual SoTL Projects from Faculty Research Questions
6. Analysis of Learning Spaces and Effective Use
7. Potential Effects of IMPACT on Subsequent Academic Performance