Traditional PSC100

• Sophomore-level class with 200 students, 1 TA
  – 4 hours of lecture per week (two 2-hour lectures)
  – Some limited discussion during the lectures (same 5 students)
  – *Students do well at regurgitating facts, but don’t learn anything about critical thinking*

• A 35-minute test every 2 weeks
  – Multiple choice

• 4 empirical journal articles
  – 5-question “reading check” for each article, then lecture
  – *Most students get very little from the journal articles, because they really don’t know how to read a journal article*
Goals of Hybrid Version

- Reverse the decline in teaching quality that has occurred as class sizes have increased
- Better teaching (and student experience) for the same time and money
- Provide opportunities for small-group discussions
- Give students skills, not just factual knowledge
General Approach

• Replace live lectures with YouTube video lectures
• Instead of spending 4 hours/week lecturing, spend 4 hours/week in small-group discussions
  – 8 groups of 25 students, 1 hour/week for each group
  – Groups are split between myself and the TA
Pilot Testing

• Need to see what works to avoid wasting time
• Pilot 1: Spring 2012 (1.5-week unit on attention)
  – Recorded “the usual lectures” and delivered via YouTube (10-15 minutes per video)
  – No online quizzes; one 50-minute discussion with 4 groups of 50 students
  – Lectures were OK; discussions were a waste of time
• Pilot 2: Spring 2013 (2-week unit on perception)
  – Video-optimized lectures; 5-minute segments, followed by an online quiz
  – Each student attended two discussion sections (one per week) in a group of 25 students
  – Lectures were better; discussions were OK
  – Slight improvement in test scores despite some hiccups
Full version of PSC100Y (W2014)

*Note: This will be in parallel with traditional PSC100 (at first)*

- Replace live lectures with video lectures on YouTube
  - Each 5-minute lecture segment followed by an online quiz
  - Quizzes force timely watching of video lectures
  - ~2 hours for the same material as in 4 hours of live lecture

- Small-group discussions
  - 8 groups of 25 students, 1 hour/week for each group
  - Half led by me; half led by the TA
  - What can we do that really benefits from small groups?
  - Focus on teaching them to read and evaluate journal articles

- Chat room (Piazza) monitored by undergrad TA
  - Required to post one question/answer/comment per 2-week unit

- Fundamental principle: Active learning
  - Example: Fill out worksheet while reading a journal article in preparation for a public policy debate based on evidence from the article

- Same testing as before (multiple choice test every 2 weeks)
Lessons Learned So Far

- Pilot testing is crucial to see what works
  - Detailed surveys at the end of each pilot
  - Compare test scores, if possible
  - Talk to lots of different students

- What to do in small-group discussions?

- Shooting 20 hours of video takes a long, long time

- Dealing with initial time investment
  - If I can do it, so can you
  - Spread time cost by doing pilot units
  - Create a team of student volunteers to help
  - Apply for the PHCA so that you can pay students to help
  - Be ambitious, but realistic – you can continue to add stuff in future quarters

- This has been fun!