

Preparing Graduate Students to Teach Statistics and Data Science

Large Classrooms

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Large is relative.

Turn To Your Partner (TTYP)

1. Have you ever taught a large class?
 - ❖ If yes, how large was the class? What was the main obstacle while teaching that you remember? What did you do about it? (2-3min)
 - ❖ If no, what size do you consider large? What do you expect to be a major obstacle while teaching and how would you try to counter it?
2. Turn to the person next to you (pairs of 2) and share your answer. (5-6min)
3. Prepare to share what you and your partner discussed. Both of you should be ready to share. (3min)
4. Let's share.

Challenges Related to Class Size

Students are more likely

- ❖ to sit back passively
- ❖ get distracted with other things (phones, computer, ...)
- ❖ to miss class
- ❖ to take less responsibility for their own learning

How to Win Students and Influence Learning

- ❖ By Ellen Smyth (Faculty Focus, 07 / 13 / 2011, see references for link)
- ❖ Smyth refers to the Dale Carnegie approach*:

““There is only one way under high heaven to get anybody to do anything,” Carnegie writes. “Just one way. And that is by making the other person want to do it.””
- ❖ Consider what your class can offer that makes your student more “marketable”

* Carnegie, Dale (1936), How to Win Friends and Influence People, Pocket Books.

Challenges Related to Class Size

- ❖ For instructors, it becomes more difficult to
 - ❖ Build rapport with students and to connect with them
 - ❖ Do sufficient formative (and summative) assessment
 - ❖ Provide timely and detailed feedback (especially as part of formative assessment)
 - ❖ Gauge student understanding
 - ❖ Manage class

Some Strategies

- ❖ Use active learning strategies frequently.
- ❖ Ask thoughtful questions & hold all students accountable for answering.
- ❖ Have short formative assessments & only grade a randomly chosen subset (one-sentence summary, muddiest point, TTYP, 1-minute paper).
- ❖ Set clear expectations in the syllabus & refer to it.
- ❖ Decide on one main form of communication regarding class logistics.
- ❖ Learn as many names as you can (even if it is only 5!) and interact with students as much as you can.
- ❖ Stay organized.

Some References

- ❖ <https://cft.vanderbilt.edu/guides-sub-pages/teaching-large-classes/>
- ❖ http://www.depts.ttu.edu/tlpdc/Resources/Teaching_resources/TLPDC_teaching_resources/TipsForTeachingLargeClasses.pdf
- ❖ http://www.depts.ttu.edu/tlpdc/Resources/Teaching_resources/TLPDC_teaching_resources/Syllabus_whitepaper_2017.pdf
- ❖ <https://citl.indiana.edu/teaching-resources/teaching-strategies/holding-students-accountable/>
- ❖ <https://www.facultyfocus.com/articles/teaching-and-learning/how-to-win-students-and-influence-learning/>