

Flipped Classroom in Third Year Undergraduate Statistics

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A flipped classroom attempts to 'flip' the typical structure of a course such that the presentation of concept, traditionally achieved through in-class lectures, is presented outside class, reserving class time for working on activities and projects. Flipping Professor O'Hagan's third year statistics class, a challenging class where students often have a difficult time grasping the concepts, was particularly useful as it allowed for plenty of contact time with the students to focus on problem sets.

The structure of the flipped classroom in Professor O'Hagan's class sees the webcast assigned a week prior to the class, during in-class he presents a warm-up activity, then a problem from the prior session's material as review, followed by a brief review of the week's webcast material with questions and concludes with a couple of problems on the new material.

Evidence shows that the flipped classroom format improves learning as well as student and instructor satisfaction. Having the extra class time to complete problem sets was a real key to student success and this was the motivating factor for changing the format. The new format meant that the instructor does not have to lecture, as this has already been covered in the webcast but that he has had to peel the students away from the in-class problem solving time as their motivation and work ethic has increased substantially.

Things to consider when flipping a class are:

- 1) Who is the audience and how would a flipped format fit with their style?
- 2) What features would be important in a flipped design?
- 3) Do you have the time and resources to flip it
- 4) How will you know if a flipped design is worthwhile?