Learning Catalytics™

EDUCATOR TESTIMONIAL
UNIVERSITY OF BRISTOL

COURSE: A 1st-year course called Digital Circuits and Systems for 70 Electrical & Electronic Engineering students

USED SINCE: 2015

SUMMARY: Learning Catalytics was used to facilitate a flipped classroom approach and encourage more interaction between students.

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What challenge or problem did you hope Learning Catalytics would solve?

- I was keen to encourage co-operation between students.
- I was aware of Eric Mazur's work, and was particularly interested in his research on students helping each other in class to better understand concepts.
- I was interested to try the "flipped classroom" approach.

How do you use Learning Catalytics with your students?

I use Learning Catalytics for the Logic Design element of the course, which is around 11 weekly 2 hour lectures (covering approximately half of the course content). The lectures are given in a tiered lecture theatre with bench seating. Students are required to read ahead for the next lecture.

Typically there are 10-12 Learning Catalytics questions per lecture. They tend to be 'conceptual' questions, rather than straight from the notes. The two main types of questions I use are multiple choice and short answer. I prefer questions that can be identified as correct/incorrect automatically. The regular expressions are very useful for checking short answer responses. If 30-70% of students give the correct response, I group the students together and re-deliver the question. Generally I put students in groups of 3 sitting within 2 places of each other.

What outcomes/benefits/results have you seen from using Learning Catalytics?

- The proportion of correct answers invariably increases on the second round.
- The students interact with classmates they may not have known previously.
- Most of the students appear to do the reading ahead so that they can participate in class.
- It's apparent that students are working with the material sooner, rather than trying to assimilate it just before the exam.

> ***Students liked the stimulation that Learning Catalytics provides, and most obviously enjoyed using it.***

Other comments?

- As with any interactive technique, students liked the stimulation that Learning Catalytics provides, and most obviously enjoyed using it.
- A small minority were uncomfortable interacting with classmates during lectures – they deliberately sat remotely to defeat the grouping algorithm.
- From the instructor's point of view, creating questions is a pleasure. The user interface is excellent.
- The students' user interface is also clear and easy to use.