Using MOOC materials in a flipped or blended campus classroom environment

http://yint.org/flipped-mooc

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Concluding thoughts I hope to cover by the end of today's talk

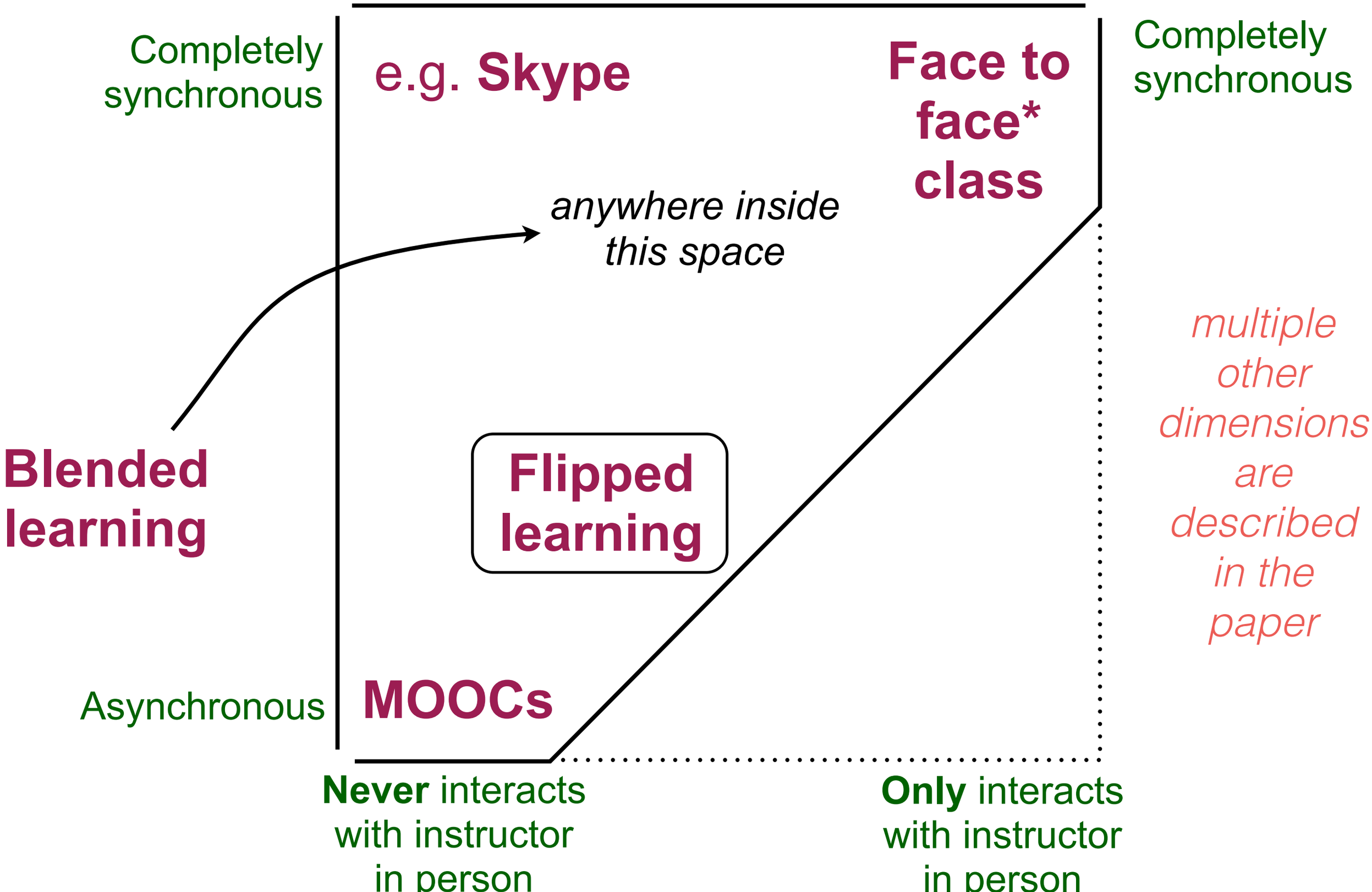
Everyone here has the tools **today** to introduce blended learning aspects into their class.

Blended learning requires **clear communication** with your class before, and during, the semester.

You might not get it right the first time, but you will improve your course by adding blended learning elements.

All quantitative and qualitative data is available, including course evaluation

Let's visualize some terminology



The 2014 MOOC

coursera

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Experimentation for Improvement

We are constantly using experiments to tweak and find improvements in our personal lives, our communities, and in our work. But are you doing it efficiently? Or are you changing one thing at a time and hoping for the best? In this course, you'll learn how to plan efficient experiments using statistical methods - enabling you to test for many variables that lead to better results.

Preview Lectures

About the Course

Would you like to:

- improve the quality of drinking water;
- make a stronger concrete or brick;
- increase the sales from your store;
- find the right combination of settings for your favourite recipe;
- improve the quality of your company's product;
- reduce waste;
- minimize energy use?

Sessions

Jul 7, 2014 - Aug 24th 2014

Join for Free!

Course at a Glance

7 weeks of study
3-4 hours/week

Why flip this course?

Demonstrate a useful, easily-available life-long learning tool

OOI

Spread out costs

Converting the course to a flipped learning environment

Assessment	2014 (F2F)	2015 (Flip)
Assignments	20%	10%
Weekly online tests	13%	-
In-class activities	-	15%
Pre-class quizzes	-	10%
Midterm	12%	10%
Peer-eval project report	10%	10%
Forum postings	-	5%
Final exam	45%	40%

Lecturing	~ 90% class time	~ 10% class time
Face-to-face contact hours	3 hours/week	2 hours/week

Capitalizing on cognitive tools

Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Watch video Read text Do quiz	In-class activities	(class cancelled)	Watch video Read text Do quiz	In-class activities
T **F**	**T** **F**	**S**	**T** **F**	**T** **F**

T = testing effect
F = feedback effect
S = spacing effect

Distributed learning (not cramming), with overlap, means less stress at the midterms and exam time

What students did prior to class time

- Readings
- Videos
- Quizzes [one per class, 22 over the semester]
- Engage in the forums

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What's the purpose of pre-class activities?

- To prime their thinking before coming to class.
- They are confident on the basic concepts.
- To identify what the trouble spots are.
- Use the testing effect, spacing effect, and the feedback effect.

What does class time look like, and how is it used

Active learning

Worked on actual datasets

Gamified elements

Critiquing and commentary

Learned shortcuts

Fill-in-the-blank sheets

Access to the instructor for Q&A

Mini-lecture to regroup and answer common issues

Numeric calculations

Software tools were learned

Group work skills

Scan and go

The irony of the online class

Flipped

After a video is uploaded it cannot easily be redone. Typically one shot to get it right.

Biggest surprise in the survey data: students would look it up first, watch videos again, ask peer group, wait till next class, or post to forums.

Face to face

Face-to-face: you can read body language and quickly offer a better explanation.

The feedback delay in an online class is too long.

Please see the link for all the detail

http://yint.org/flipped-mooc

- Qualitative feedback on 8 survey questions
- Course evaluation
- All 19 class activities, free textbook, videos, course outline
- This presentation
- Video demo of what the Coursera site looks like
- A full paper, describing all the logistical details

Flipped classrooms in the context of Chickering and Gamson

1. Encourages contact between students and faculty
2. Develops reciprocity and cooperation among students
3. Encourages active learning
4. Gives prompt feedback (from peers and instructor)
5. Time on task is emphasized
6. Communicates high expectations (right from the start)
7. Respects diverse talents and ways of learning

Arthur W. Chickering and Zelda F. Gamson, “Seven principles for good practice in undergraduate education” *American Association of Higher Education Bulletin* volume 39, no.7, pp.3-7, 1987.

Credits

Life-long learners photo credit:

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