



Blended Learning in Spanish Universities: The Case of UC3M

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@cdkloos

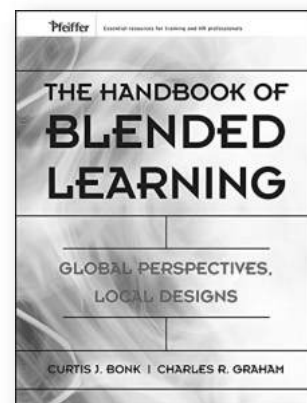


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Quote

- *"Blended learning systems combine face-to-face instruction with computer-mediated instruction"*

-- Charles R. Graham, p. 5 in:
Curtis J. Bonk, Charles R. Graham (eds.):
"The Handbook of Blended Learning",
Pfeiffer 2007



5+5 Dialogue, 2021-11-11

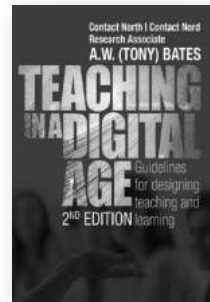
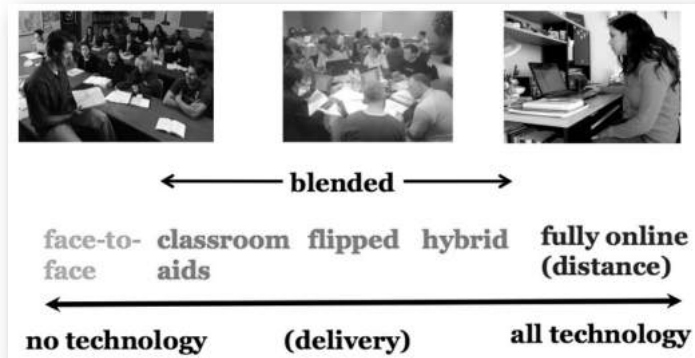
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Spectrum of Formats

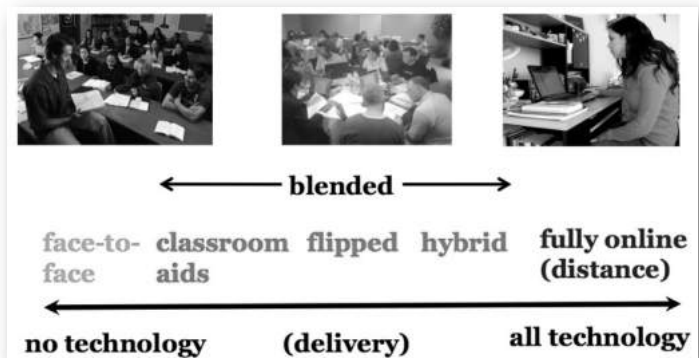


- Anthony W. Bates: “Teaching in a Digital Age – 2nd Edition”. Tony Bates Associates Ltd 2019, pressbooks.bccampus.ca/teachinginadigitalagev2

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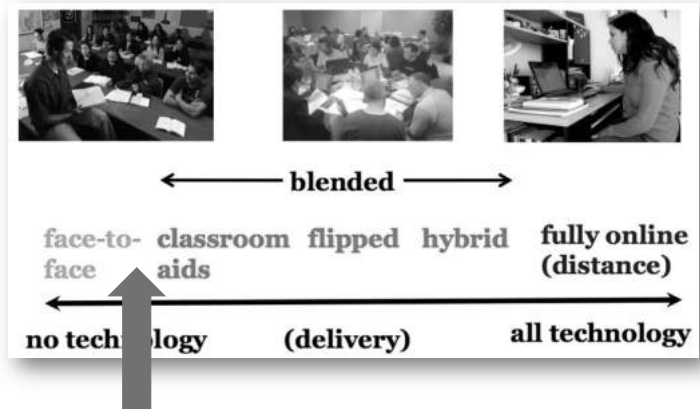
6 Cases

1. Teaching with videos
2. Engagement tools
3. Flipped classes
4. Digital boards
5. Systems for video-classes
6. Telepresence classrooms



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Case 1: Teaching with Videos



Be Your Own Assistant



Remixing Reality



Phil Libin
CEO of mmhmm



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Remixing Reality

The DJ-ification of the world



IRL+: Better than In Real Life



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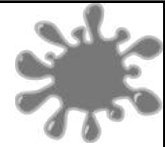
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DJ-ification of Education



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Remixing Reality: Teaching with Videos



commonsense.org



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Remixing Reality: Teaching with Videos

TIP #1: Take notes

- Real-time, collaborative
- Use a backchannel tool

Today's Meet

- Build knowledge while watching

TIP #2: Pause and ask questions

- Point back to essential questions
- Ask for arguments vs. answers

TIP #3: Multiple viewings

- Assign projects
- Annotate a video
- Remix a video

youtu.be/xSK4noPp1t8

Remixing Reality: Teaching with Videos

| | Onsite | Online |
|---------------------------------|--|--|
| <p>Teacher introduces topic</p> | <p>Students ...</p> <p>Students ...</p> <p>Questions are asked</p> <p>Students ...</p> <p>Discussion</p> | <p>... view video</p> <p>... collaborate on backchannel</p> <p>... annotate or remix videos</p> <p>(Zaption was acquired by Workday)</p> |
| | | |

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Remixing Reality: Teaching with Videos

But it can also be:

Online (live) Online (recorded)

Teacher introduces topic

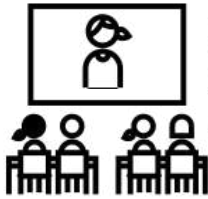
Students **view** video

Students **collaborate** on backchannel

Questions are asked

Students **annotate** or **remix** videos

Discussion



(Zaption was acquired by Workday)



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Remixing Videos

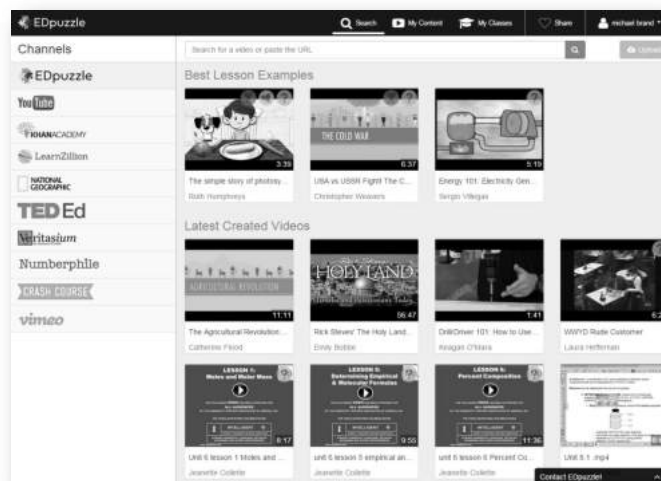


• edpuzzle.com



Make any video your lesson

Choose a video, give it your magic touch and track your students' comprehension.



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Remixing Videos

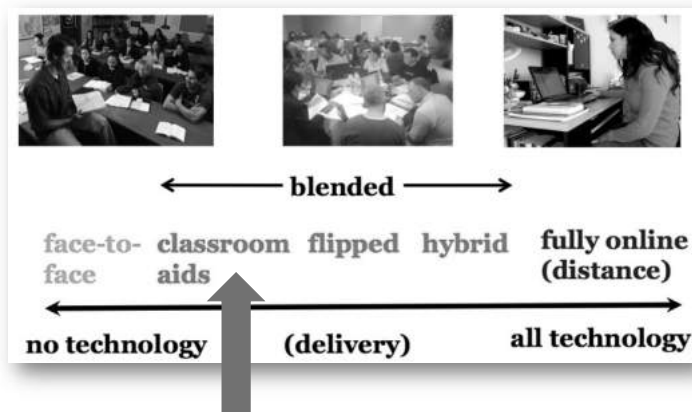


Popular channels

- Edpuzzle
- YouTube
- Khan Academy
- National Geographic
- TED Talks
- Veritasium
- Numberphile
- Crash Course

- 02:12 Multiple-choice
- 03:08 Open-ended
- 04:40 Multiple-choice
- 05:19 Multiple-choice
- 05:53 Multiple-choice
- 06:43 Open-ended

Case 2: Engagement Tools





Engagement Apps

Face-to-face students



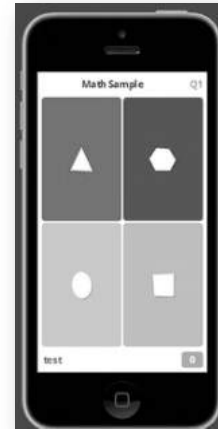
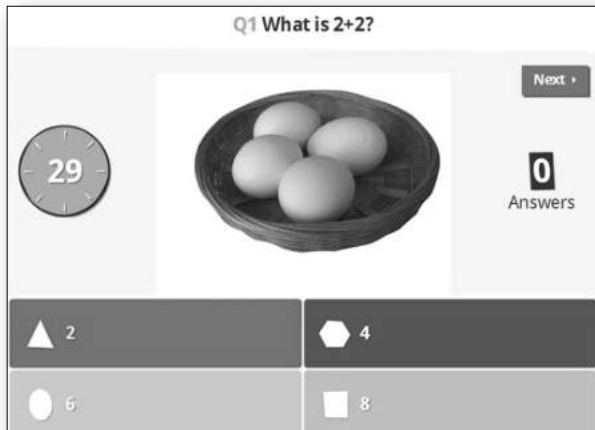
Remote students



Kahoot!



Kahoot!



Kahoot!



STEP 1) YOUR INITIAL ANSWER
You can change this answer later, if you change your mind.

Anxiety

Fear

Joy

Explain to other students why you chose this answer (Required):

In the next step you will be shown a selection of other responses which may help you refine your answer.

Note: In order to move to the next step please choose an answer and briefly explain your decision.

Next Step -->

Wooclap



• www.wooclap.com



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Plickers



• plickers.com

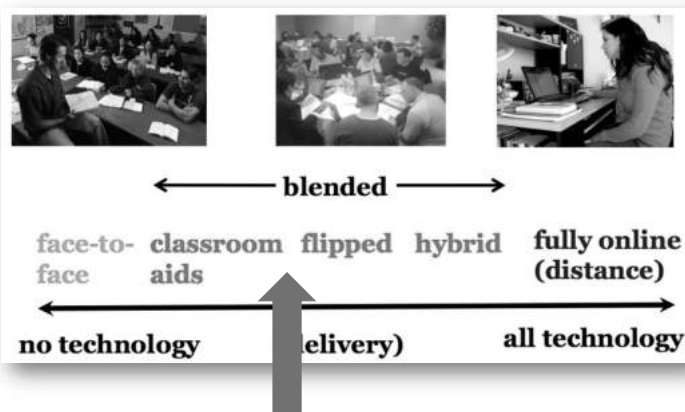


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Engagement through the Cloud



Case 3: Digital Boards





Digital Boards

Face-to-face students



Remote students



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Classroom with Digital Board



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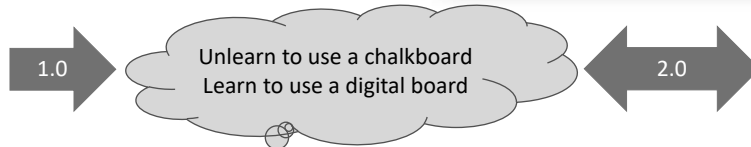
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From the Chalkboard to the Digital Board



Putting Intelligence into the Board

Traditional chalkboard

- Lots of space
- Easy to use
- Own handwriting



Digital board

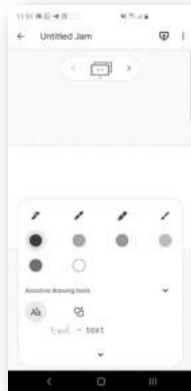
- Limited space,
 - but lots of pages
 - or limitless canvas
- Storable, recordable, shareable
- 1. "Smart" writing
- 2. Multimedia can be included
- 3. Collaborative



Smart
Rich
Connected

1. Smart Writing

- Recognition of hand-written text



1. Smart Writing: Auto-Draw

- Draw perfect shapes

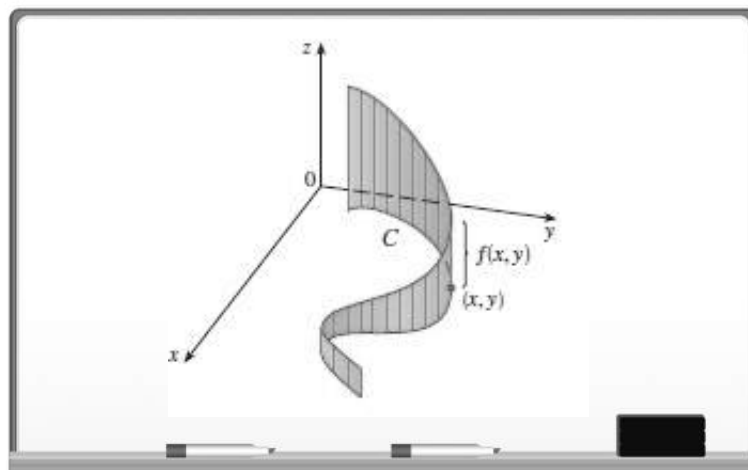


1. Smart Writing: Auto-Draw

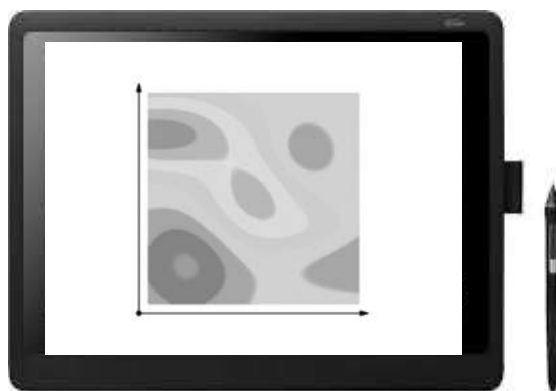
- Recognition of predefined figures



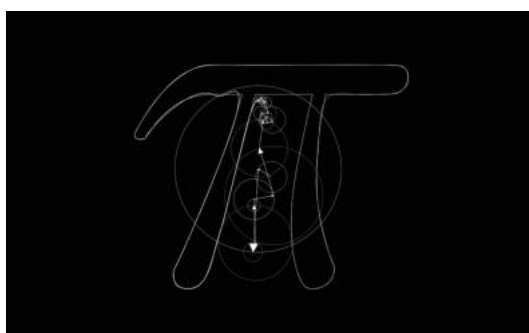
2. Drawing → Multimedia



2. Drawing → Multimedia



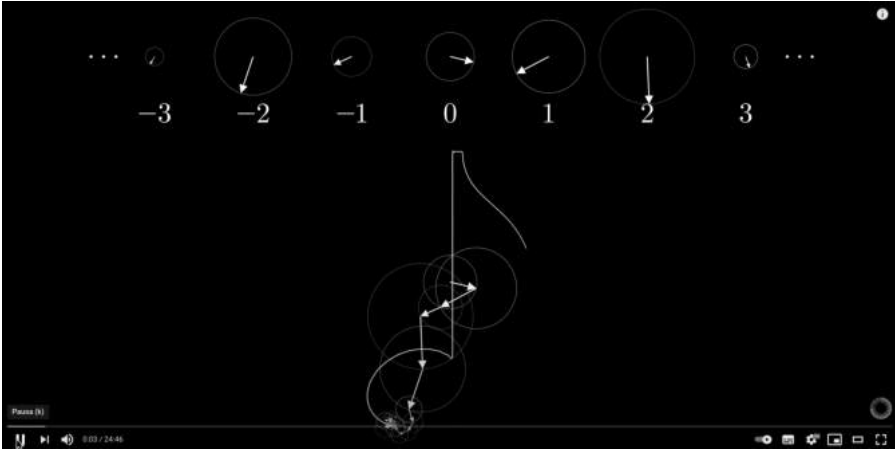
3 blue 1 brown



3blue1brown



New video every day (with probability 0.05)



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3. Collaboration in the Cloud

Connected



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Shared Board



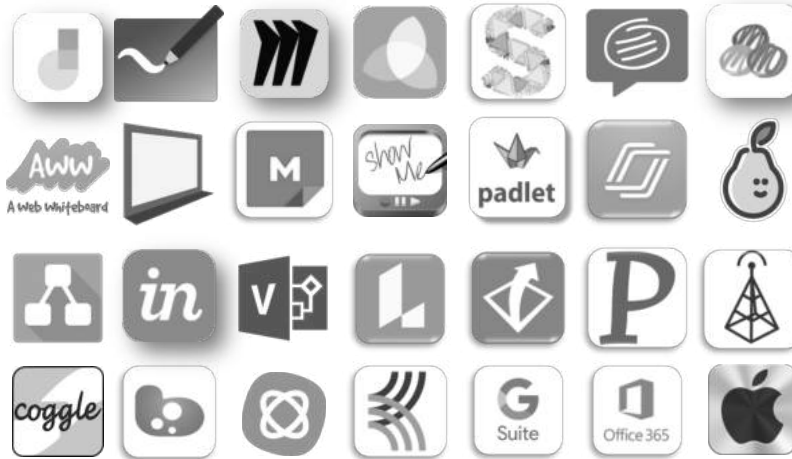
Google Jamboard



- gsuite.google.es/intl/es/products/jamboard
- jamboard.google.com
- Web, Android, iOS
- Also physical board



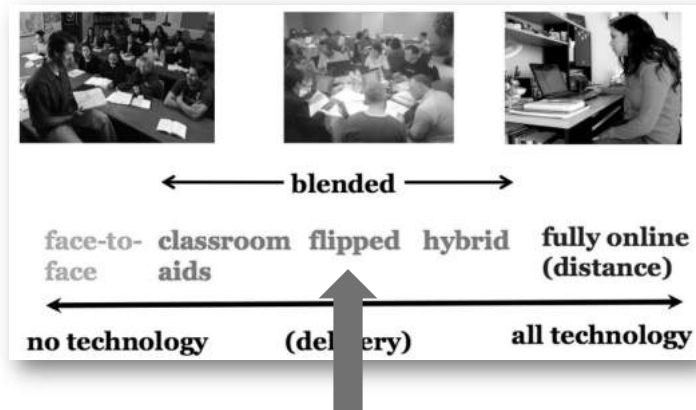
Collaboration in the Cloud



The Cloud as an Additional Meeting Space



Case 4: Flipped Classes

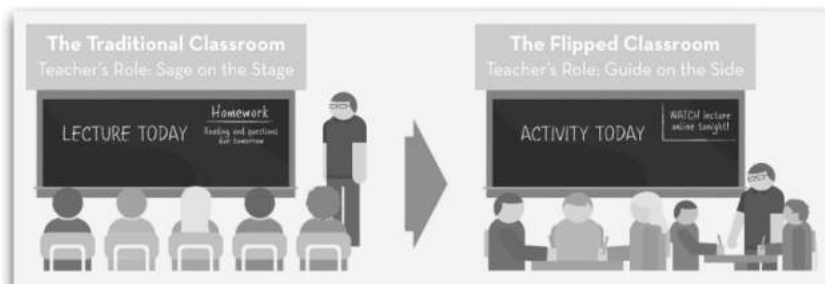


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Flipped Classroom

THE FLIPPED CLASSROOM

- Students view videos and do quizzes before coming to class
- Contact time in class can be used for:
 - Exercises, problem solving, solving questions, review



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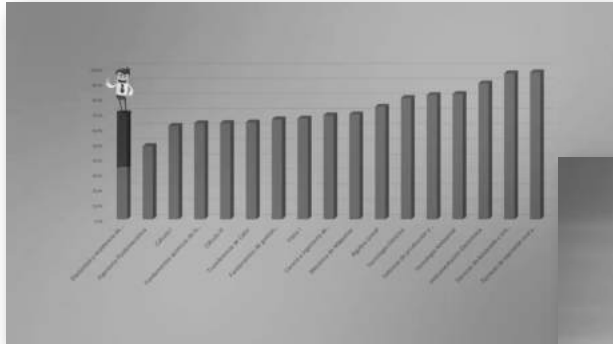
Elasticity and Material Strength



Problem Solving in Small Groups



Elasticity and Material Strength



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App to Support Out-of-Class Activity



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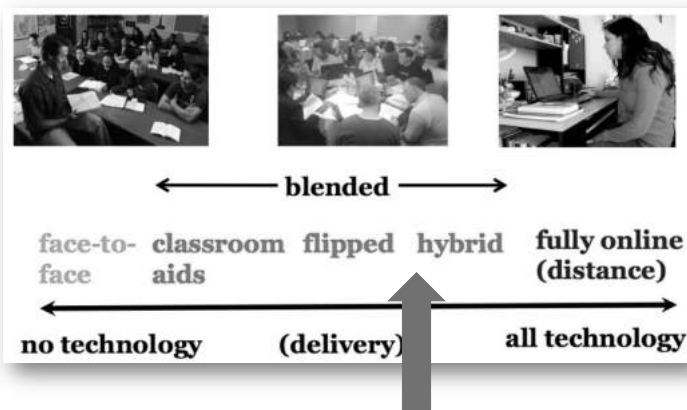
Prize



- www.reimagine-education.com
- www.reimagine-education.com/the-winners-individual/2015/427/660679627d961f7511493f7f3d257b46/Universidad+Carlos+III+de+Madrid

Two Courses: Getting Freshman on Tra

Case 5: Systems for Video-Classes



Systems for Video-Conferences (not for Video-Classes)



From Video-Conferences to Video-Classes

- A class is not a conference
- Video-support for a class should be not the same as for a conference
- What other elements support a class that do not exist in video-conference systems?
- Some examples

- Engageli
- Class
- ClassIn




Built on Zoom



Engageli

• engageli.com

engageli



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Breakout Groups



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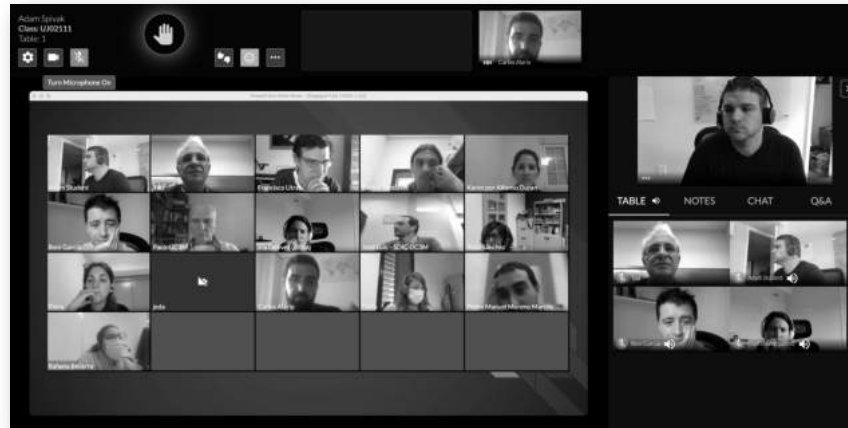
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Class



Tables



Presentation



The slide content is as follows:

Statistical Inference

- **Inferential Statistics** deals with procedures for making inferences about the characteristics that describes the larger group of data, called **population**, from the knowledge derived from only a part of the data, known as **Sample**.
- Numerical quantities describing a population are called **parameters**. μ, σ, ρ
- A numerical quantity computed from a sample, is called a **statistic**. $\bar{x}, s, S, \hat{\beta}$

Note Taking



The slide content is as follows:

Statistical Inference

- **Inferential Statistics** deals with procedures for making inferences about the characteristics that describes the larger group of data, called **population**, from the knowledge derived from only a part of the data, known as **Sample**.
- Numerical quantities describing a population are called **parameters**. μ, σ, ρ
- A numerical quantity computed from a sample, is called a **statistic**. $\bar{x}, s, S, \hat{\beta}$

A note-taking interface is overlaid on the right side of the slide. A callout box points to the slide content with the text: "Clicking on a note replays class at the time when the note was taken". The note-taking interface includes a "TABLE" tab, a "NOTES" tab, and a "CHAT" tab. The "NOTES" tab is active, showing a list of notes with a search bar and a "start typing..." input field.

Shared Doc per Table



Support for collaborative group work via shared projects (docs, sheets, web resources)

| | Q1 | Q2 | Q3 | Q4 |
|---------|------------------------------|----------------------------|------------------------------|----|
| Stage 1 | Website go-live | Open social media channels | Start to quarterly blog post | |
| Stage 2 | Create programme launch plan | Launch social programme | Create communication plan | |

Engagement Level



CS169 - Advanced Algorithms

1 Instructor & 1 TA
32 of 34 Students, 5 Tables

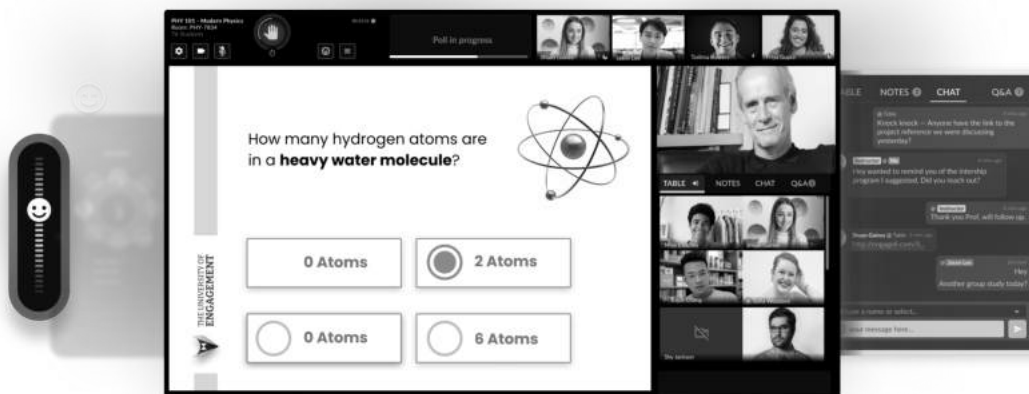
#9 Math Major

- Halle Scott
- Macle Fournelle
- Eugene Smith
- Harpreet Chisla
- Emily Larsen
- Kain Parkinson
- Whitney Betts

Hybrid Class



Quizzes



Quizzes



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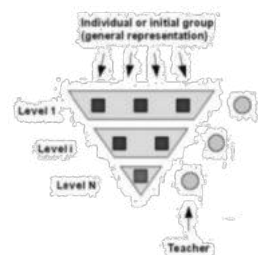
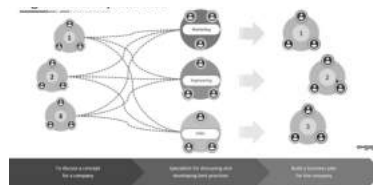
Collaboration Patterns



- Jigsaw

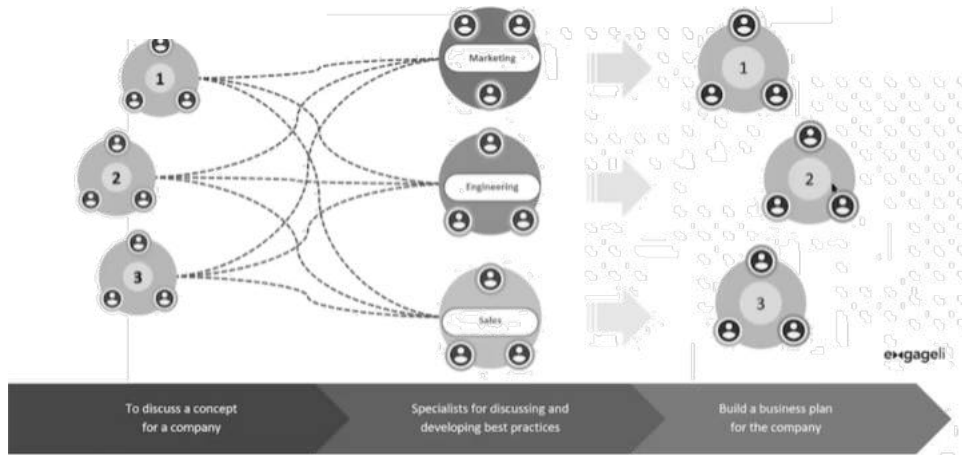
- Peer instruction

- Pyramid

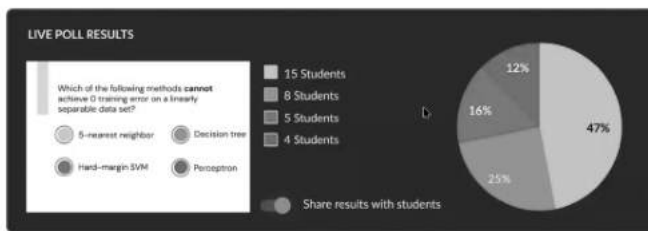


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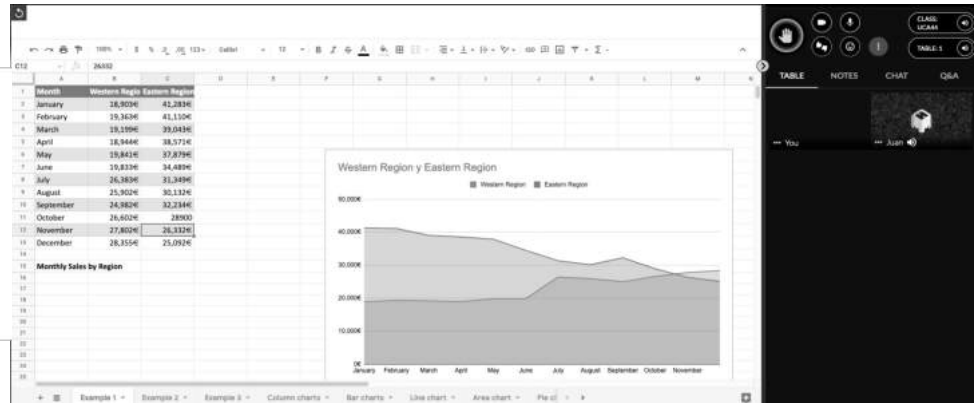
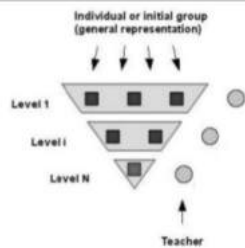
Jigsaw



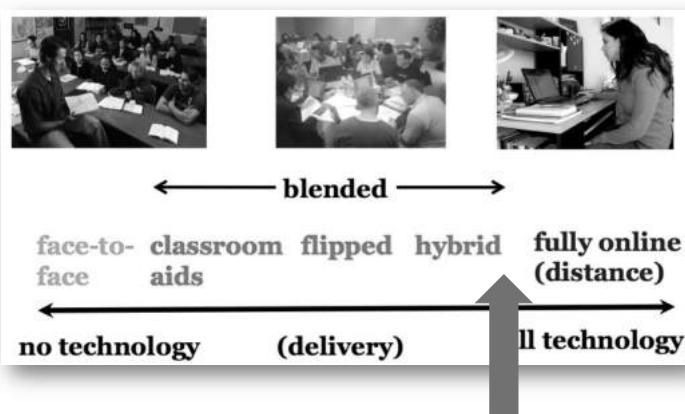
Peer Instruction



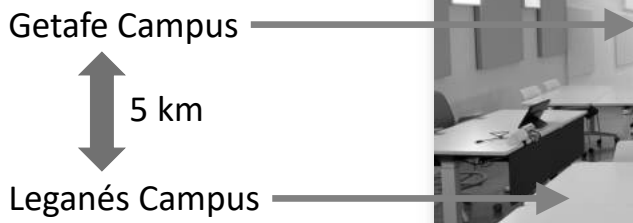
Pyramid



Case 6: Telepresence Classrooms



Telepresence Classrooms



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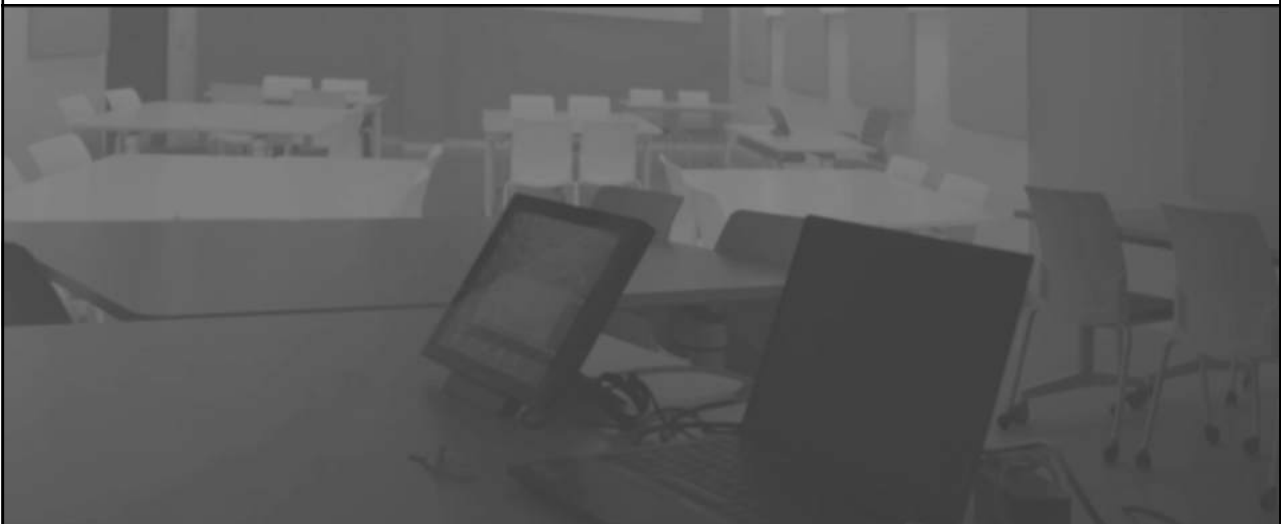
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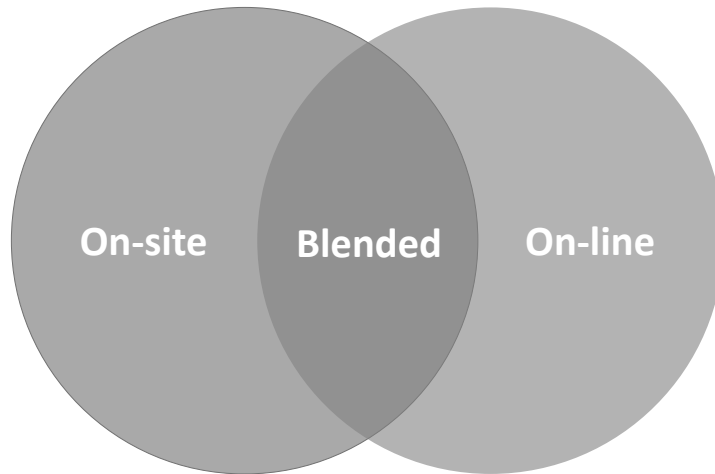
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Telepresence Classrooms

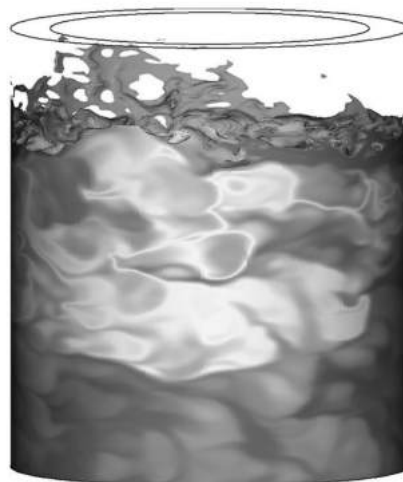


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Blended Education



Liquid Education



Quote



*The difficulty lies, not in the new ideas,
but in escaping the old ones,
which ramify,
for those brought up as most of us have been,
into every corner of our minds.*

-- John Maynard Keynes (1883-1946)

Thank you!

