A CLaS on its own

The challenge: redesign the student experience in large core units in the Business School. Enter CLaS: the Connected Learning at Scale project to re-engage learners inside and outside the classroom through designing and leveraging educational technology across physical and digital spaces, for an active learning experience with practical, real-world application. We share our learnings so far in Technology Enhanced Learning (TEL) as a lever to draw learners and 21st century learning together.

1. About us, about CLaS
   Is this a familiar sight at your university? Universities are still lecturing and need to change from passive to active learning. In this presentation, I discuss how the Connected Learning at Scale project (CLaS) is changing learning experience at the University of Sydney Business School, and I will show some examples.

   ![Figure 1](image1.jpg)

2. Complex world
   21st century world demands different pedagogical approaches. In 2016, the University of Sydney Business School gained a purpose-built building for teaching and learning with the latest technology. While the physical spaces enable more flexibility, team and project work to prepare students for the future of work and global challenges, the virtual and online spaces need to be equally rewarding.

   ![Figure 2](image2.jpg)
3. Rethinking learner experience
The CLaS project designs for large cohorts to connect at scale, so students can become creative critical thinkers rather than regurgitate information in exams. It’s a move away from the didactic content transmission models of the lecture hall.

4. Connecting Learning at Scale
A many-to-many student-centered pedagogy is informed by active, problem-based learning, discipline-based research, collaboration and network formation.

5. Connecting Learning at Scale
The CLaS project has three years to transform large units. Critical tasks include content evaluation and redesign, educational design, learning object making, embedding graduate qualities, staff capability development, research, evaluation and supported engagement.
6. Embedding change
Change is hard. Building staff capacity to learn & teach differently is key to piloting emerging and innovative pedagogy (Laurillard, 2012).

![Figure 6](image)

7. Three principles
CLaS is grounded in these three principles. However, our focus was on the first principle – instead of listening to lectures, how could students actively engage with information? Even though connect and collaboration, assessment and feedforward are all interrelated.

1. Moving from knowledge transmission to information engagement (lectures/streams)
2. Connected interactions and active learning (different types of class engagement, interaction, collaboration, networking)
3. Aligned assessment, feedback and feed forward (assessment). A mix of group/crowd/personal assessment types to reward more than memory and reduce contract cheating

![Figure 7](image)

8. Prototyping learning experiences
In the first year of the initiative (2019) we piloted a slice of a subject (‘The Future of Business’) a first-year subject in the Bachelor of Commerce. We redesigned the content, changing the way the units are taught, and how students in the unit engage, in order to inform future iterations.
9. Learning designed for engagement
The prototype emphasised information engagement—active engagement with interactive, engaging learning objects, aligned and sequenced to support different learning styles and paces, application and current debate in real-world contexts (Bennett, Agostinho and Lockyer, 2015) These are the building blocks for the connected approach.

10. Learning designed for engagement
We designed for students to engage through different content types, activities, engagement, self-assessment, feedback, with some opportunity (though less) for peer learning. Students chose their own pathway through the activities, content and application in a non-linear manner. Opportunities for comprehension checking were embedded in interaction.
11. Learning designed for engagement
Learning was designed to be playful. The original concept was to enable students to wind their way through, as in ‘snakes and ladders’. Students could choose activities and learning sequences that were relevant to their perceived needs and preferences. Activities were optional to encourage self-directed learning.

![Figure 11](image11.png)

12. Learning designed for engagement
Learning was scaffolded by design to suggest important pathways and ways to review to better connect students to learning. Students chose activities where they could apply discipline knowledge to their own context, as well as the business world.

![Figure 12](image12.png)

13. Storyboarding, design and redesign
The design needed many storyboards and redesign of information for active engagement. Content was regrouped and reimagined as activity and tasks. Minimum tasks were suggested by design cues.

![Figure 13](image13.png)
14. Design constraints
The team had to be creative with our learning platform as Canvas LMS is linear and text-based. SAS has constraints for interacting with content, and the larger digital ecolearning system was constrained. Much extra design and coding effort was required.

15. Multidisciplinary expertise helps
It required a talented team effort of learning designers, interactive and media professionals, researchers, and a project manager to support academics.

16. Design beyond university walls
We designed to extend learners beyond university and digital learning environment into professional communities of practice (Mott, 2010). Social media feeds were embedded so students could participate in current real-world debates business world and professional communities of practice.
17. Interactive, visual design
Third party software for interactive learning objects, useful for other contexts. Learners engage with content that is visual and accessible. Learning should delight and be memorable (Velesianos, 2011). Visual information is absorbed faster than text. Complex information was presented to interact with – to explore concepts and make learning more memorable or sticky.

18. Design for authenticity
Designing authentic activities to situate learning in experience was also important. In the 'real' world, tasks are often fuzzy and need to be defined (Bennett, Harper, Hedberg, 2002). For example, we embedded content from gapminder.org so students could explore population data and were guided to tease out its business implications.

19. Design to reduce cognitive overload
Designing for efficient cognitive processing meant, for example, using video content judiciously with words and images to promote active learning and foster concept learning (Mayer, 2009). The goal was to optimise processing and to provide a format that students could also read via closed captioning, or speed up the delivery.
20. Design to improve

CLaS has an ongoing evaluative framework to identify critical success (and fail) factors to scale and sustain innovations. Lessons-learnt resources, case studies, FAQs and research are to be shared widely. Our goal was to prototype and test and see what works, what doesn’t, in order to scale and sustain innovation. We plan to share lessons-learnt.

Figure 20

References


