L&T:21

Showcase – Session 4

Stream 1

Nov 18, 2021

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Showcase 4: Stream 1

Paul Finn

Lecturer with the Discipline of Strategy, Innovation and Entrepreneurship, The University of Sydney Business School

JamBoard

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Showcase 1

Complexity in use: a co-design approach for understanding complexity

— Corina Raduescu & Sarira El-Den

Complexity-in-Use: A co-design Approach for Understanding Complexity

Corina Raduescu | Busines Information Systems, Business School

Dr. Sarira El-Den | School of Pharmacy

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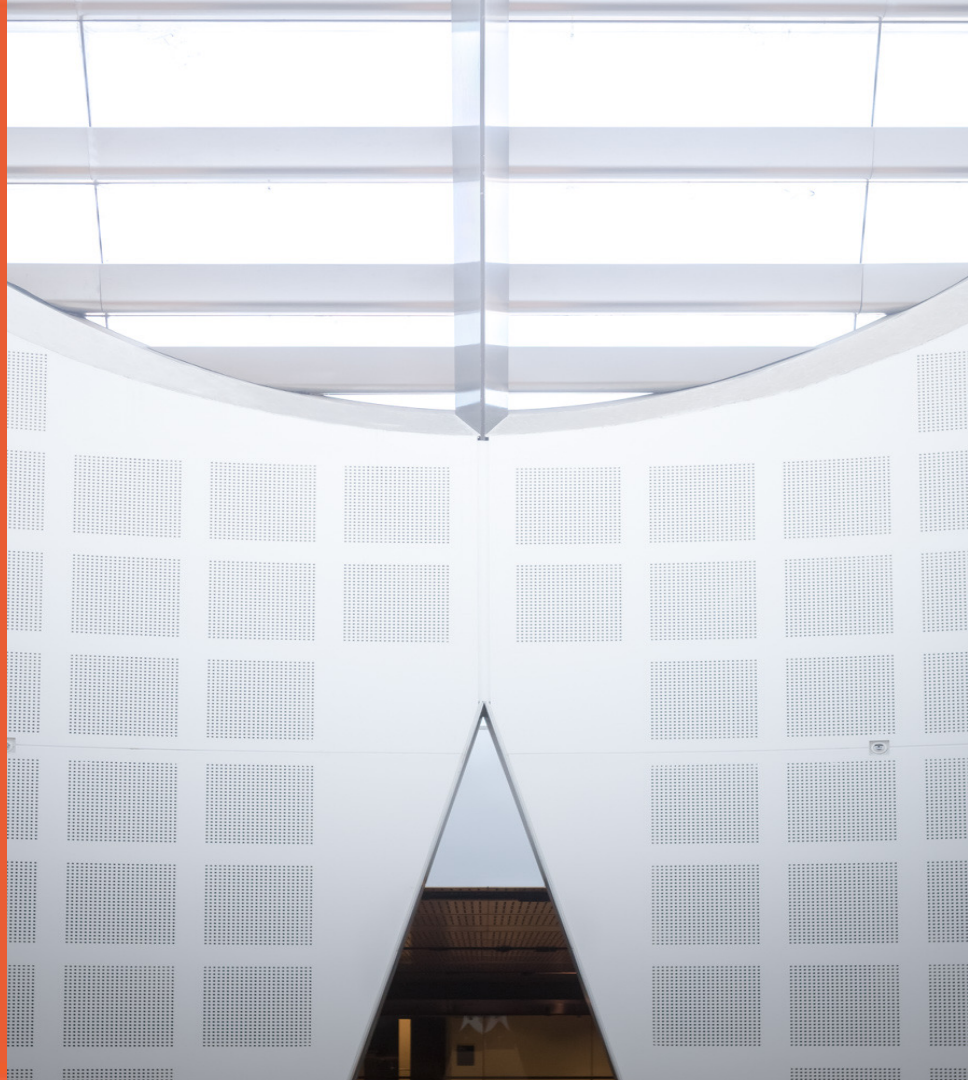
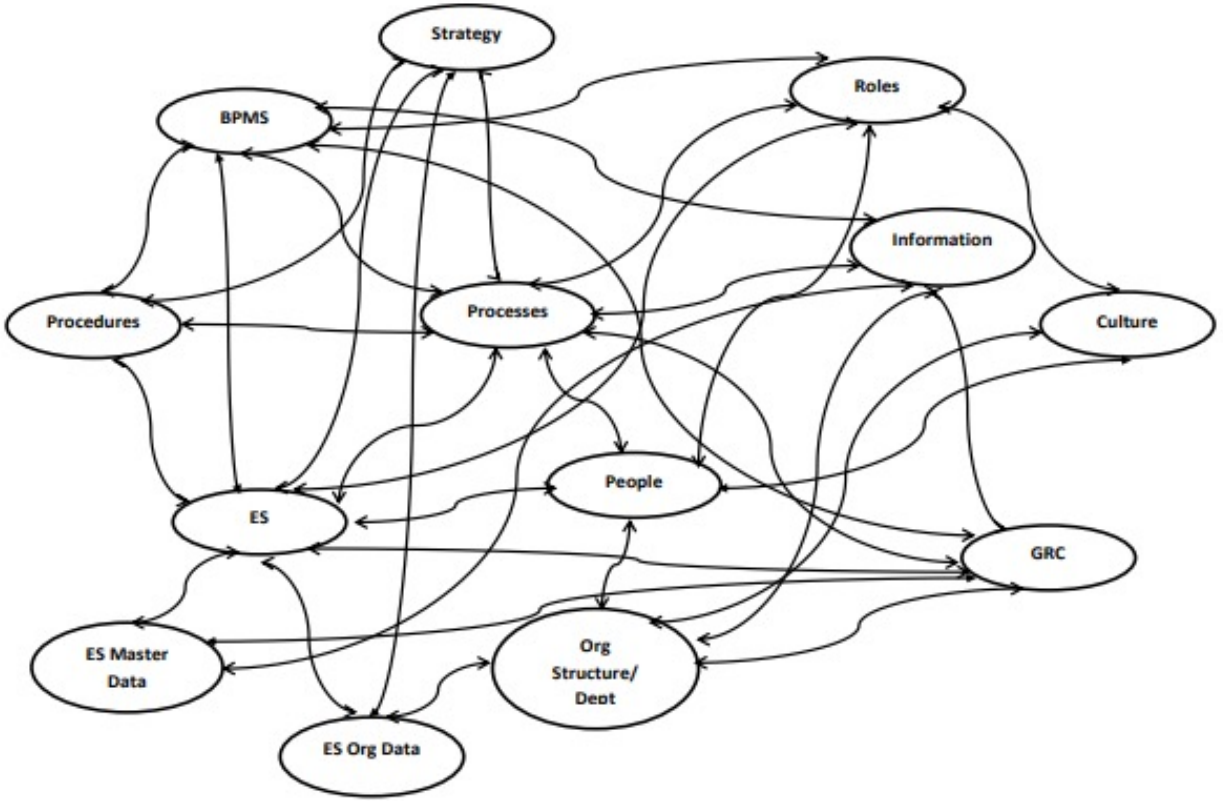


Real world complexity presents a challenge and opportunity for educating students

- Students are challenged in understanding real world complexity without ***direct access*** to the business context.
- Highly relevant in information systems (IS) because they:
  - are complex, and
  - manifest and evolve in their business context that can face unknown situations (e.g., Covid-19)
- Without such access, students developed only limited ability to successfully apply complex concepts in the workplace.
- There have been calls for **complexity** to be embraced in education for decades
  - education programs need to address the broader implications of complex concepts.

Information Systems – complex concepts



Additional inhibitors to getting students to engage with complexity

1. An emphasis on instrumental learning
   - Teacher-centred, despite benefits of other approaches being known
   - Simplified, positivist evaluation of learning (USS)
   - Students increasingly seek certainty in evaluation, with highly detailed rubrics
   - Students pressurised by family environments, universities, competitive labour market
   - Students, Universities (via KPIs) pressurise academics, causing stress and encouraging them to provide simple, modularised assignments
2. Professional silos
   - Teaching is designed around Faculties and Departments with little interaction between them
   - Unit level focus that can lack proper integration for concepts that cannot exist in isolation
3. Modularised learning
   - Need to cover considerable technical material, leaving little time for the broader sociotechnical context
   - Student focus on learning technologies, e.g., SAP, Signavio, BI tools

We turned to the educational design/ design literature to address the challenge

- More effective learning environment where students learn through a process of discovery of real-world complexity.

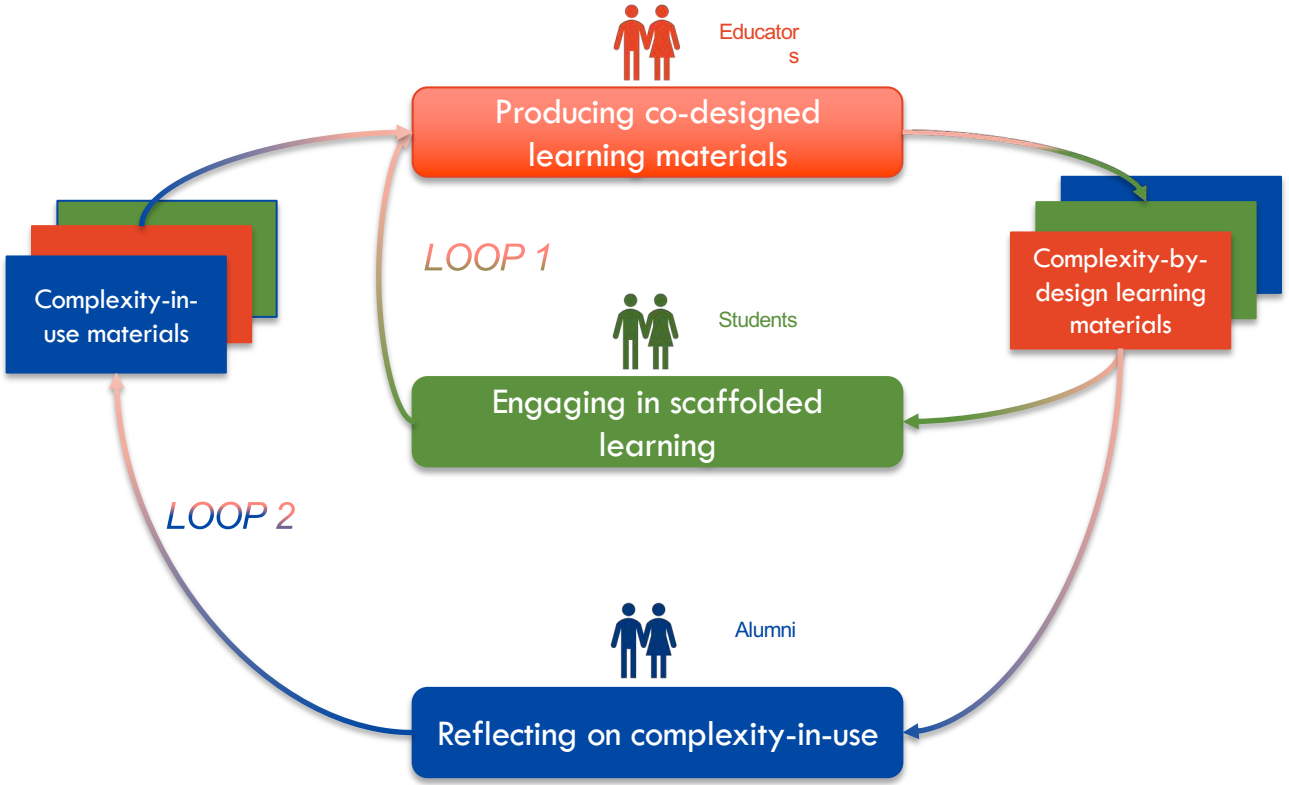
- A new approach, rooted on three theoretical pillars:
  1. ***educational design theory*** – co-creation of learning with academics, students and industry partners;
  2. ***general design theory*** – a modification of design through practice - A design is not completed until it has been "appropriated" in practice → **"Design-in-use"**
  3. ***complexity theory*** – a holistic interdisciplinary approach to understanding complexity
- We therefore created an educational design which involves ***co-design*** for ***complexity-in-use*** in collaboration with the School of Pharmacy.

An educational design for complexity-in-use

Interdisciplinary learning environment

- Funded by two Education Innovation Projects.
- Addresses both the social and technical aspects of IS in a community pharmacy.
- Learning is co-created through interactions among students, academics, and business partners – video case scenarios expose students to a diversity of perspectives.
- Through a scaffolded approach the perspectives are integrated, resulting in a holistic understanding of IS complexity in a pharmacy context.

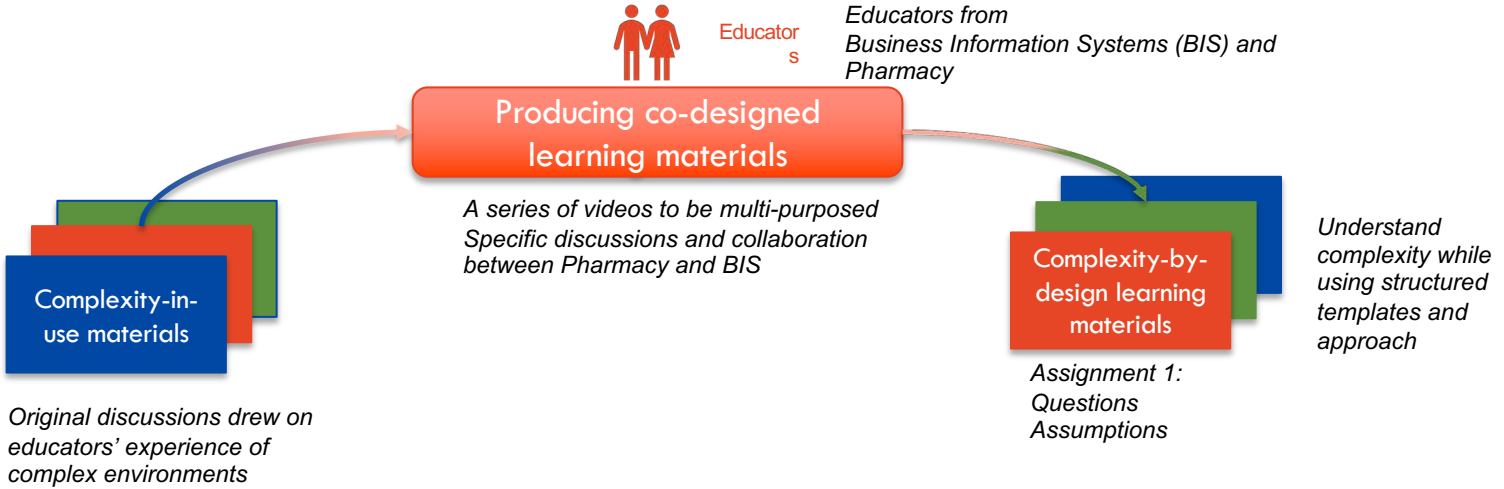
An educational design for complexity-in-use



Modelling a community pharmacy process

Adapted from Carroll 2004

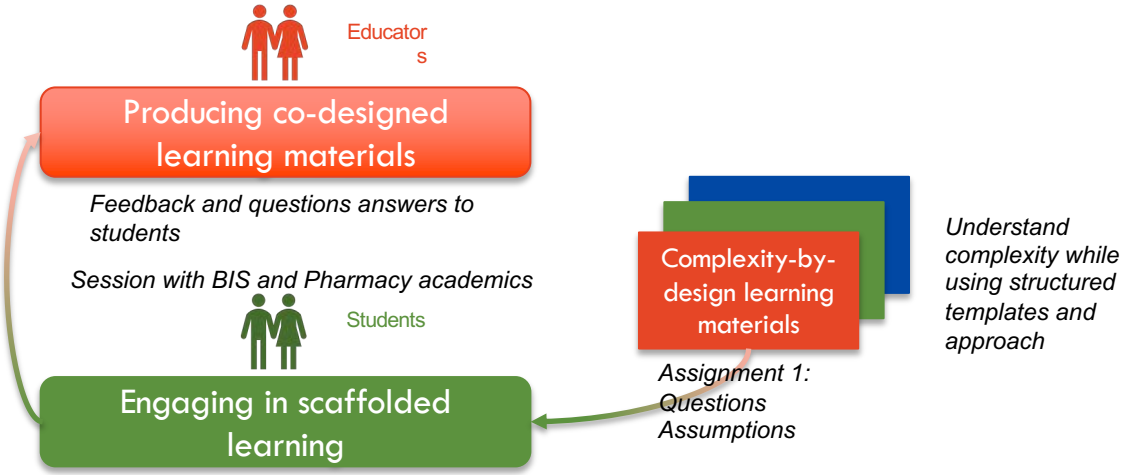
Stage 1: Assumptions as Scaffolding for complexity



Modelling a community pharmacy process

Adapted from Carroll 2004

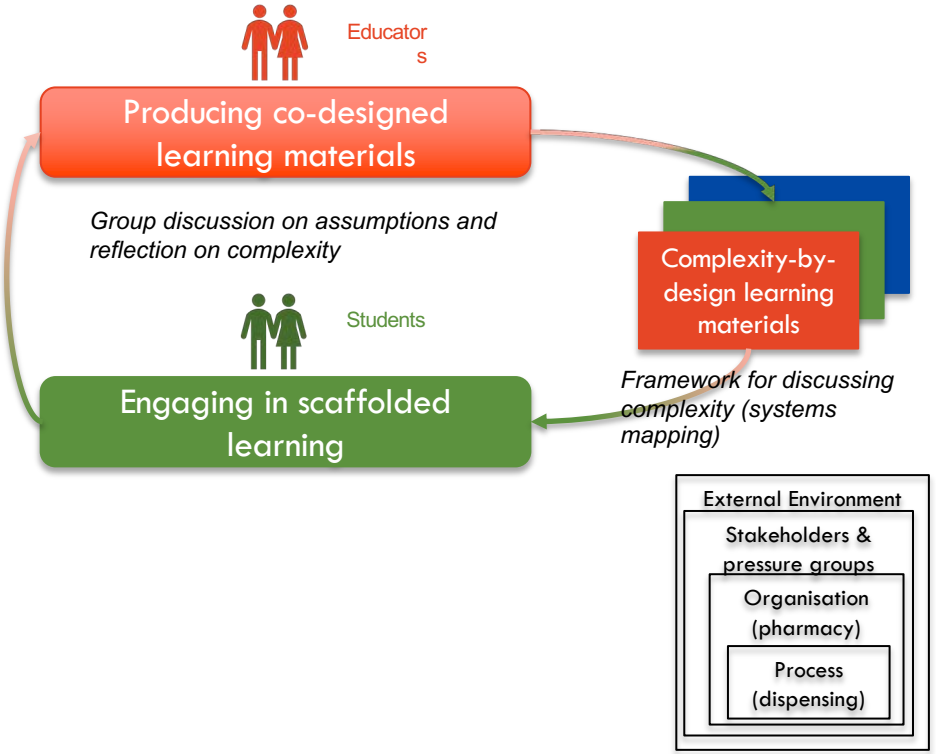
Stage 2: From scaffolding to co-design



Modelling a community pharmacy process

Adapted from Carroll 2004

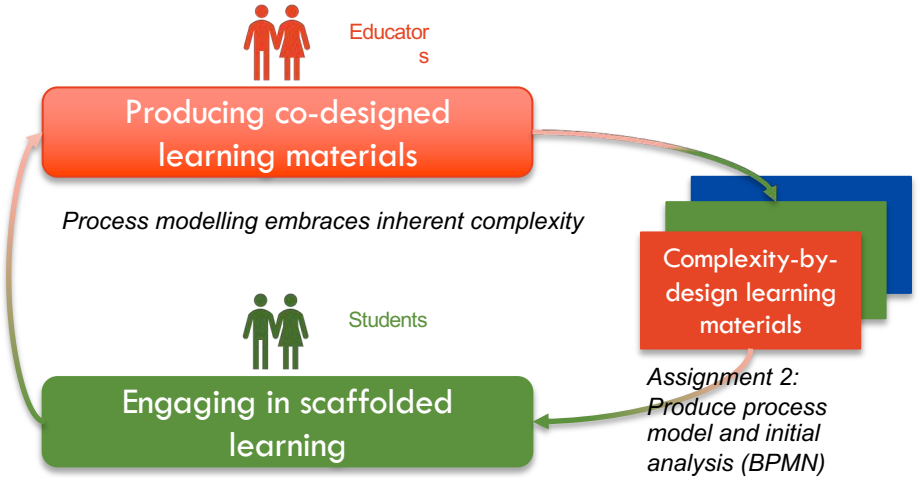
Stage 3: Revealing complexity



Modelling a community pharmacy process

Adapted from Carroll 2004

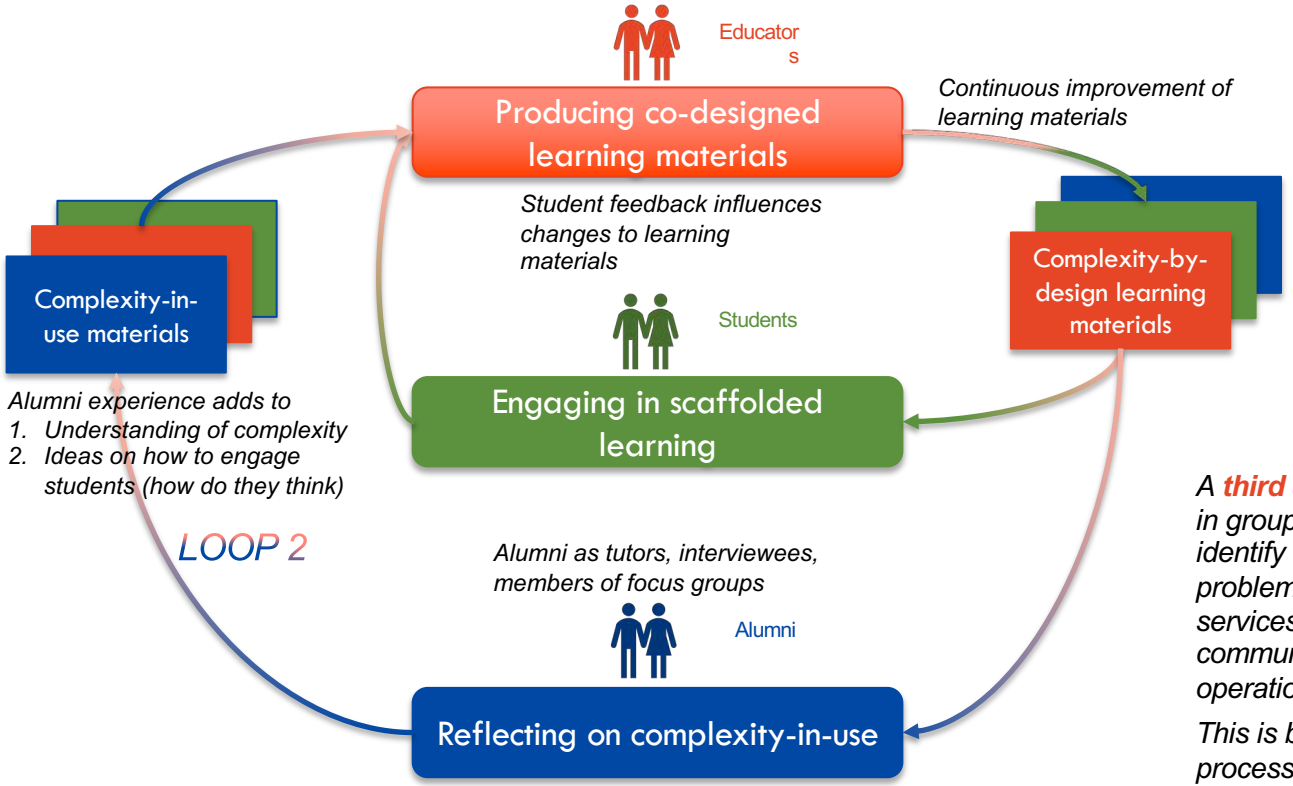
Stage 4: Student design embracing complexity



Modelling a community pharmacy process

Adapted from Carroll 2004

Loop 2: Involving Students and Alumni



*A **third assignment**, performed in groups challenges students to identify current and possible problems and suggest new services or improvements to the community pharmacy operations.*

This is based on an in-depth process understanding that draws on earlier discussions regarding complexity.

Modelling a community pharmacy process

Adapted from Carroll 2004

Co-design approach impact

- Over 2,000 students engaged with the design across six units of study in both the Business and Pharmacy Schools since 2018.
- Increases of USS mean scores for overall learning experience and the skills required in the real world from 3.9 to 4.6.
  - "*The use of video cases and live stakeholder engagement in class improved my learning experience*" question also scored a mean of 4.5.
- Positive student feedback
  - "*Thinking in and outside the box considering all dimensions of a system, it forced us to think as if we were actually working with real organisations and their problems*"
- Co-design principles have been embedded in the first University-wide interdisciplinary project-based curriculum, Industry and Community Project Units - a key contributor to two University graduate qualities.
  - Emphasis on the integration of disciplinary knowledge required in addressing complex problems currently faced by industry partners
  - exposure of over 2000 students/ year across USyd faculties and schools

Conclusion

- A way forward to enable University education to better embrace **complexity**
- Highly positive impact
- Future work involves the design of a **situated and adaptive evaluation**
  - Adaptive production knowledge process driven by in-school, situated, specific conditions
  - Beyond Instrumental evaluation that
    - Takes a positivist view in reducing complexity
    - Is at odds with evaluating the understanding of complexity
  - Longitudinal study of students, then as alumni to evaluate the **"complexity-in-use"**
- Educational design will continuously evolve based on feedback and will embrace **"complexity-in-use"**

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Question?

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Showcase 2

Object Based Learning to encourage creativity and critical thinking in a postgraduate unit

— Abdul Razeed, Elly Meredith & Sandra Dwyer

L&T:21

2021 Teaching And Learning Forum

Object Based Learning to encourage creativity and critical thinking in a postgraduate unit

By
Dr Abdul Razeed
Dr Elly Meredith
Mrs Sandra Dwyer

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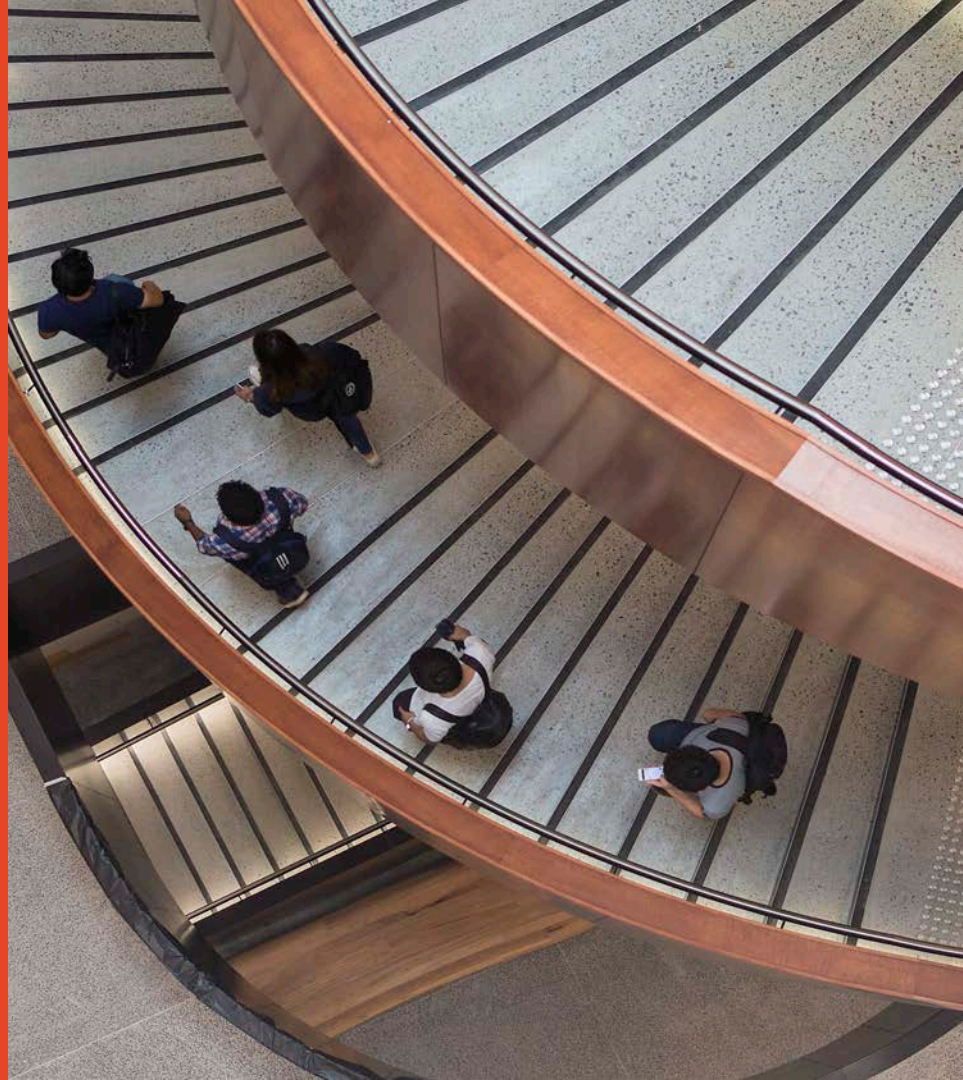
Business School



Introduction

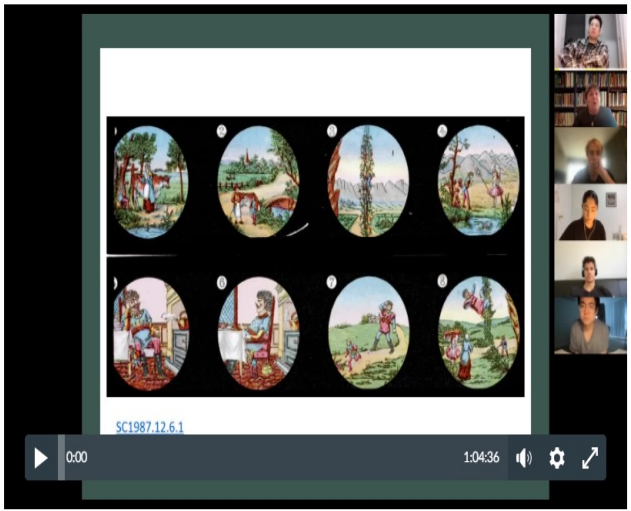
- Creative thinking and critical thinking - crucial graduate skills for 2020 and beyond
- World Economic Forum report - pandemic has further escalated the need for graduates to be well versed in these areas
- Only 45% of students enrolled in a postgraduate unit a a Business School viewed themselves as creative (Online Activity)
- Creativity is not a skill that is specifically targeted in the Business School
- This presentation reflects on the feedback received in Semester 1, 2021, and the changes that we have implemented in Semester 2, 2021 in response to the feedback.
- Undertaking this reflection throws more light into a curriculum design that incorporates creative and critical thinking in higher education.

Object Based Learning in BUSS5221

- Positive benefits of 'active' and 'experiential learning' in universities at both strategic levels and in daily teaching practice (Chatterjee & Hannan, 2015)
- Object Based Learning (OBL) is increasingly used in pedagogical research in Higher Education to lead transformational learning
- A business school first collaboration with Chau Chak Wing Museum that brings OBL to business school students to invoke the creative mindset of students
- Detailed iterative design and time investment in the design and implementation of OBL activities and scalable to a large cohort
- In S1 and S2, we designed the activity to allow students to interact with museum artefacts and specimens to foster students' engagement with the creative and critical components of BUSS5221

Semester 1

- Students formed working groups prior to Week 2
- The OBL activity was designed for both online and face-to-face learning
- In the Face-to-Face class, students were invited to interact with a number of physical museum artefacts and specimens in Chau Chak Wing museum
- In the Online class, students were provided digital museum objects to interact with including 3D images
- Face to face students and Online students were first invite to interact with the museum objects both physically (F2F) and through 3D images (Online)
- Objective of the exercise was for students to have an experiential and active learning experience, through the use of their creativity, to engage with museum objects



Semester 2

- For Semester 2 some changes were made to the program – timing, establishing a connection to the museum, the virtual tour and online delivery
- Though some remained the same, the fairytale and the group narrative for four items from the museum

The Changes

- The timing of the Chau Chak Wing Museum was altered from Week 2 to Week 3.
- Connection to the museum. We introduced a greeting from Dr Eve Guerry and Dr Jane Thogersen to give an overview of the museum and how it was connected to the course.
- The virtual tour – improve engagement with actual museum space – feeling part of the experience (El-Said & Aziz, 2021; Poronnik and & Sellwood, 2020)
- The last exercise was the group narrative – this didn't change but the introduction was altered.

Hoped for changes

- Improved experience due to being online – additional videos and framing of the exercise
- Covid-19 forced the re-work of the activity to be more engaging in an online environment

Semester 2 Feedback and Further Development

- Students were observed engaging and enjoying the activity overall. Students remained active for most of the session
- It appears that the ability to work independently on a creative task prompted discussion and a fun element

- The fairy-tale activity did not need to be grounded in the students knowledge of the tale. The opportunity to be creative over-rode this point that we imagined might be a limitation
- The exercise to virtually navigate the museum was done in a collaborative manner by many of the groups. It offered a path of continued creativity as well as a grounding in the analytical and logical curation of the museum space.
- This enabled a discussion to be prompted about the weft and the weave – our focus headline for the subject
- The final exercise to create a narrative provided students and the class with stories that were engaging, unique and usually humourous

- Overall the creative approach was successful and engaged students for the entire workshop
- The analytical approach we feel will be best developed when students return to the physical space to engage with the specifics of how the museum is curated

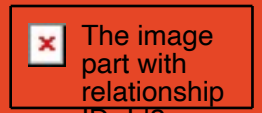
References

Chatterjee, H. J., & Hannan, L. (2015). Engaging the Senses: Object-Based Learning in Higher Education. Routledge. https://doi.org/10.4324/9781315579641

El-Said, O., & Aziz, H. (2021). 'Virtual tours a means to an end: an analysis of virtual tours' role in tourism recovery post COVID-19', Journal of Travel Research, p. 1-21 DOI:10.177/0047287521997567

Poronnik, P., & Sellwood, M. (2020) 'Bioscience education 2030 and beyond: where will technology take the curriculum?' Biochemistry and Molecular Biology Education,48(6), pp. 563-567. DOI: 10.1002/bmb.21393

Thank you for listening!



Question?

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Showcase 3

The value of pre-work and how to ‘get them to do it’ in the new normal

— Robyn Martin

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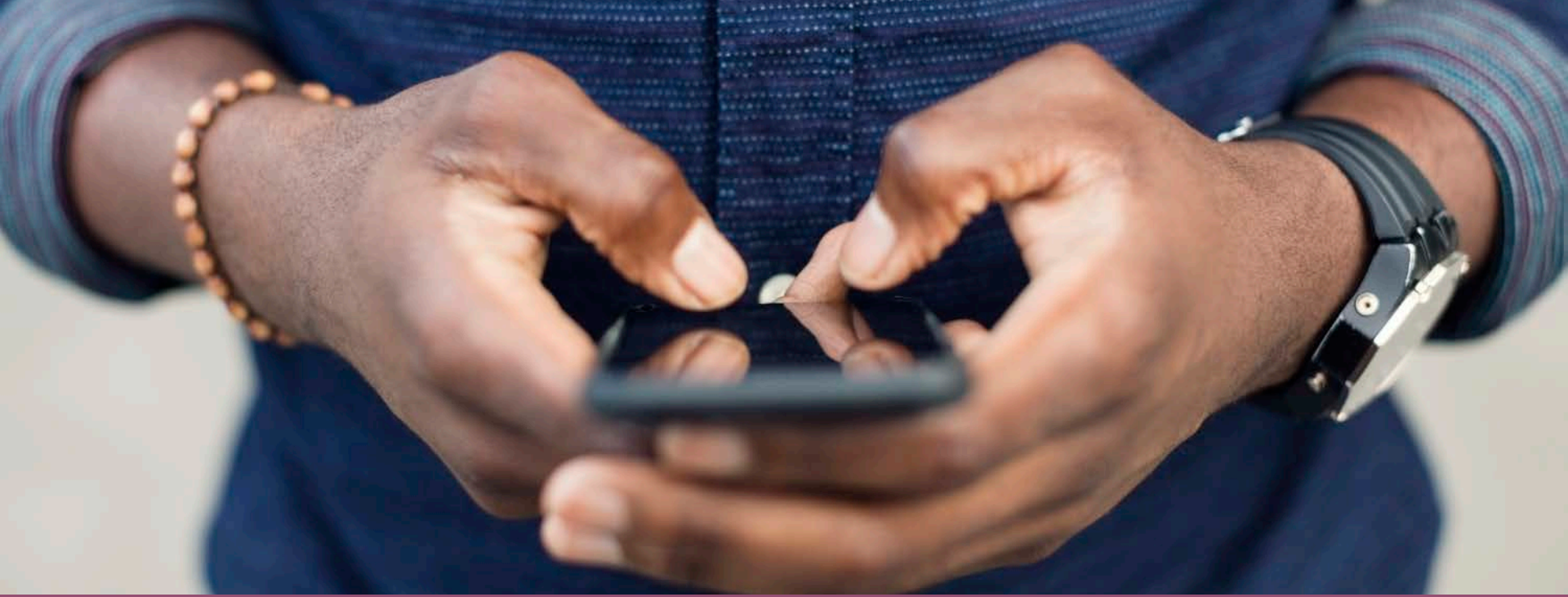


The value of prework & how to ‘get them to do it’ in the new normal

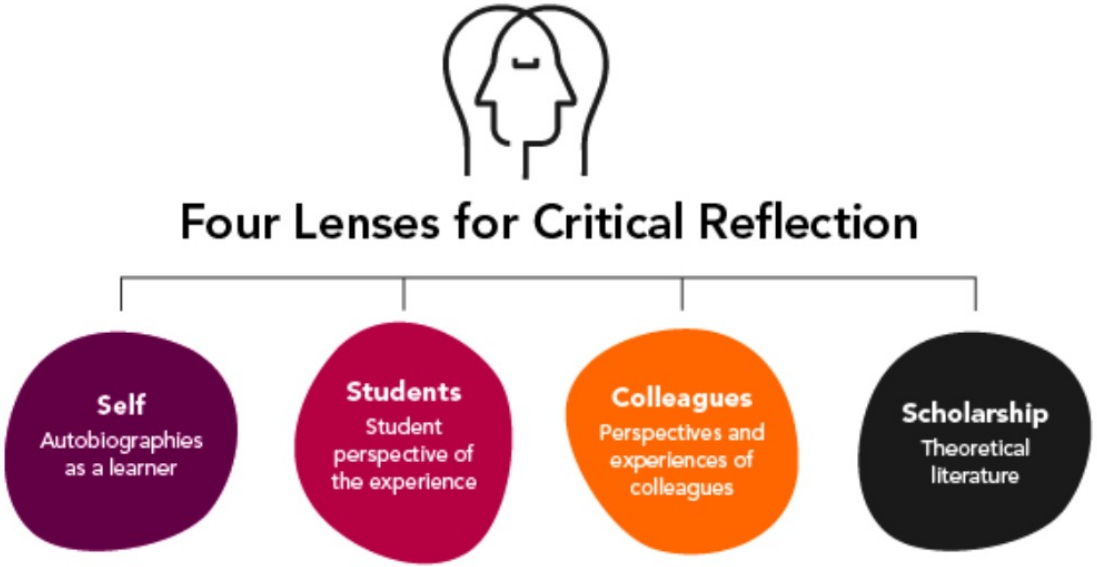
Robyn Martin

Lecturer in Academic Development & Leadership (DVC-E)| Excellence in Business Education (USBS)

The Prework Challenge

The prework-tutorial dynamic

Critical Reflection - Brookfield's Four Lenses



Brookfield (2017)

Student perspective

Student interviews + HILL Survey

(Martin et al, 2020)

"I always intend to do it....I just run out of time!"

"Not really sure what the point of prework is....you tell me answers in the tutorial anyway!"

PREWORK

Students perspective

Self perspective

"I agree!"

Why even have prework?

I WANT TO DRIVE DISCUSSION IN TUTORIALS

"PREWORK IS SO BORING"

"My biggest barrier to learning is.... me....I'm a dreadful procrastinator."

Churches (2008)

rd's (2013)

Six ing Ty

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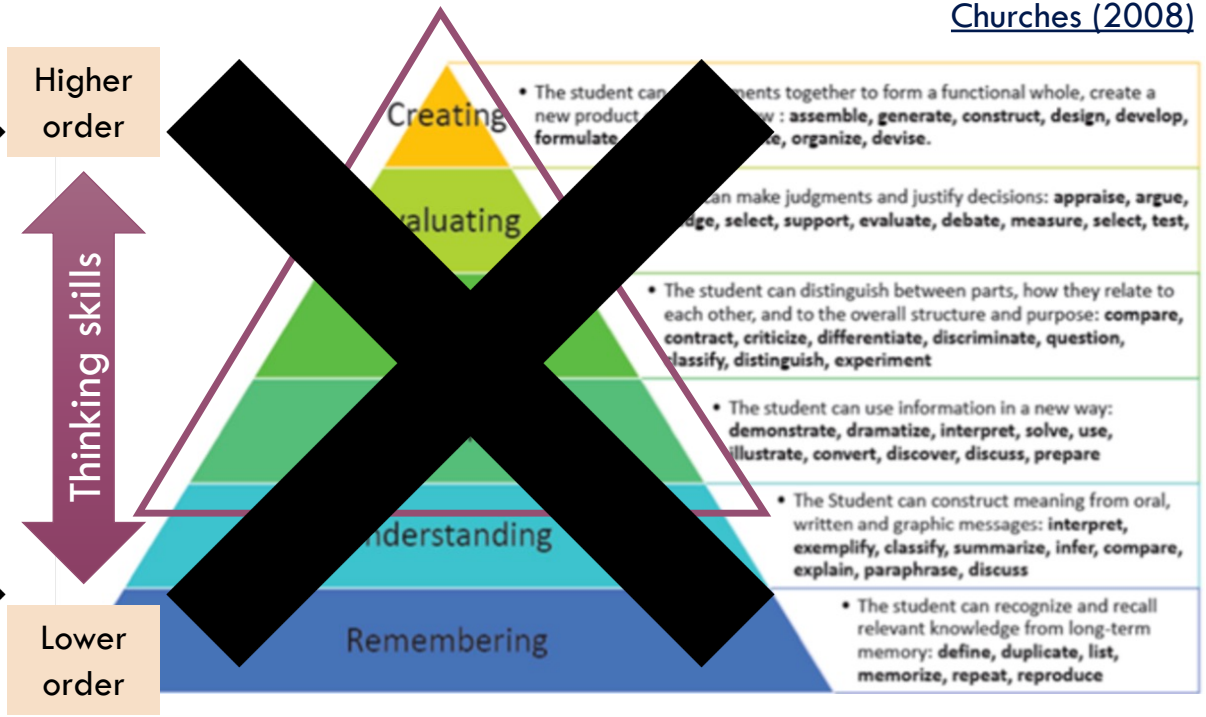
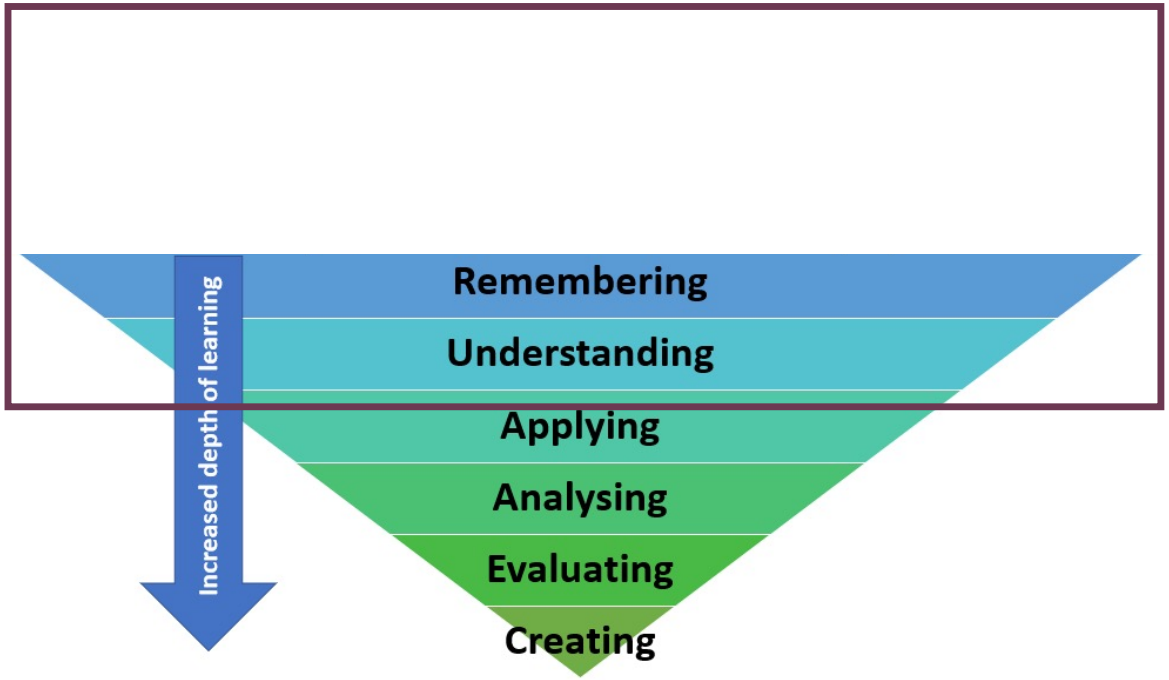


Scholarship perspective

What am I trying to achieve? Drive tutorial discussion

"What does the student bring to the learning?"



Laurillard's (2013)

Six Learning Types

- Acquisition
- Inquiry
- Practice
- Discussion
- Production and
- Collaboration

Blooms reimagined

(Martin, 2019)

So…
that's what I did.

Introduced prework-

- Much simpler/quicker/easier/shorter
- Reflected on ***their*** experiences
- Clearly communicated expectations through choice
- Added value through generation of 'weekly study notes'

Reflection Collection

Unmarked, weekly reflections,

locked prior to tutorials.

Reflection Collection

Clear communication of expectations through choice

*"If you are aiming for a **Pass, or Credit,** read pages 2-14*
*If you define yourself as a **High Achieving Student,** read all of Chapter 1."*

Once prework was completed, reflect upon on *their* experiences:

Did anything surprise you?

What do you know now that you didn't know prior to the prework?

Submit and lock via SRES, 1 hr prior to tutorial
(no penalty if missed)

In tutorial

Kicked off the discussion with their reflections

Communicated how the Reflection Collection became 'study notes'

Access to 'study notes' via SRES Student portal.

The teaching team results

- 'Choice' removed no-prework as an option
- Increased discussion in tutes (removed the 'lecture recap')
- Access to students 'thoughts' prior to class via SRES educator portal
- No marking required ☺

The student feedback

MKTG5001 Sem 2 2020 Results

'I hate how you made me do my prework'

'I love how you made me do my prework'

Paraphrased USS

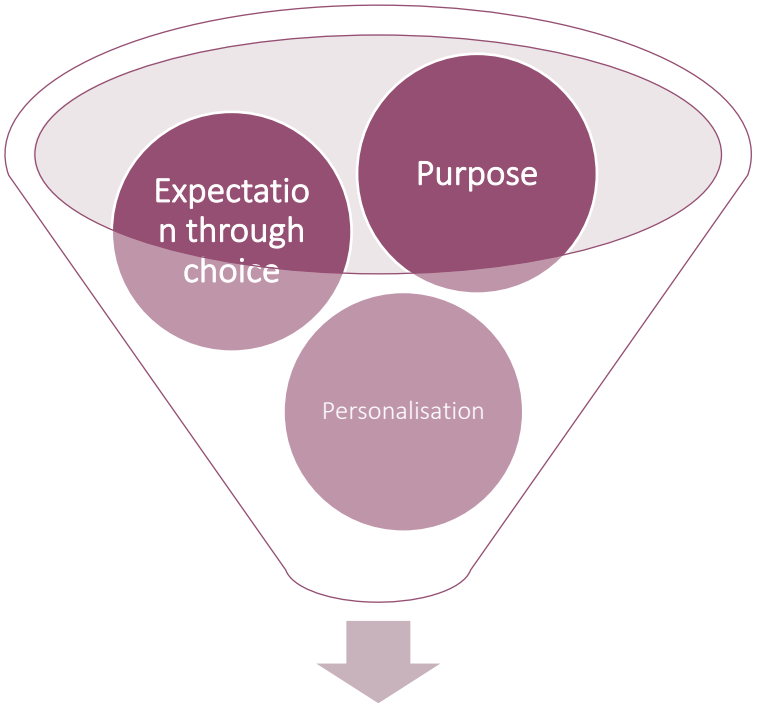
95% of students indicated recording weekly reflections supported their learning

(Student survey, 208/692)

"Yes, I think it [reflection collection] is so helpful. Thank you all!" *(Focus group)*

"Robyn made me comfortable to say, 'I don't know', and then investigate further". *(USS)*

How do you get them to do prework?



Value = Completed prework

In summary

- Purpose
  - What are you trying to achieve?
- Expectation through Choice
- Personalisation
  - Let them talk about their experiences
- Value
  - Beyond simply marks

(K5)

Questions?

Thank you

JamBoard

Don’t Forget to record your key insights from each speakers’ presentations on their Jamboard page – https://bit.ly/3BLh82e

Next session

5min break – Before the Wrap up & Close Session will commerce in this zoom session

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Thank you!

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