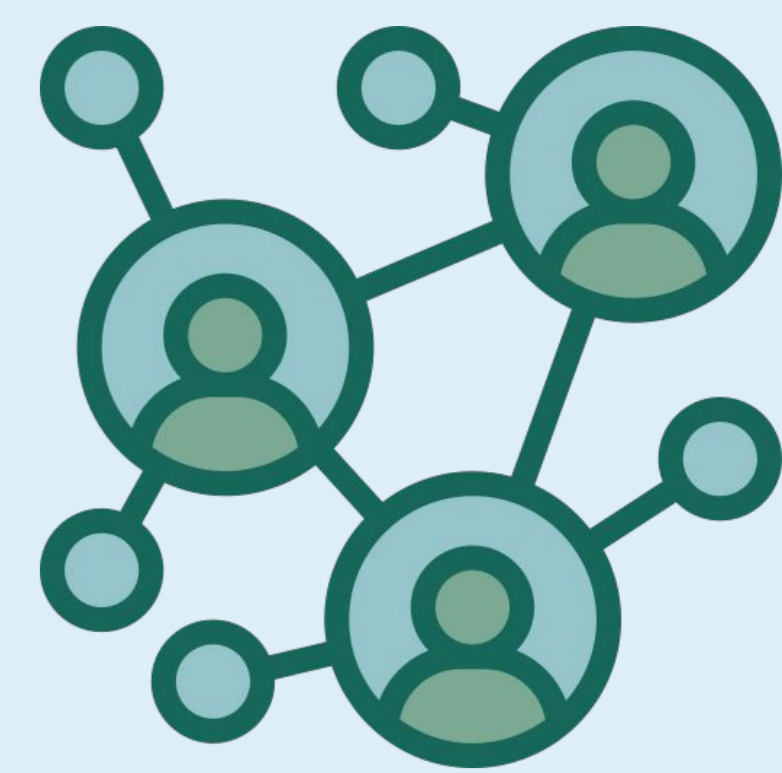


TRANSDISCIPLINARY CHALLENGE-BASED LEARNING

Multi-Stakeholder Co-Creation Combining Engineering Technology and Social Sciences



RESEARCH QUESTION

- 1) How to create value for the challenge provider, so that they will continue their collaboration with the UT?
- 2) How to integrate a singular challenge into multiple courses, ensuring students' rich learning experience?

METHODOLOGY

We integrated two 5-EC courses (Change Making and Systems Thinking) into one, 10-EC Leading Systemic Change course package.

Mixed-methods data was gathered throughout the courses, among challenge providers, students, and teachers:

1. Panel Meeting Discussions (n = 13)
2. Dairy-Style Logbooks (n = 10)
3. Surveys (n = 6)
4. Testimonials (n = 5)

Before	During	After the Challenge
1	1/2/3	1/4

Transcribed data was coded in iterative rounds by multiple, independent coders, using grounded theory and Gioia's way to thematically structure the data

INTRODUCTION

- The increased adoption of CBL may create **saturation** in the willingness of external stakeholders to be challenge providers
- We aimed to better understand how to **create value for external stakeholders** and **enrich student's learning experience**
- We did so by **upscaling CBL into two courses** in UT's award-winning Transdisciplinary Master-Insert engaging **one single challenge**

RESULTS*

- Bi-weekly project meetings to **co-create the solutions** increased **stakeholder value**
- **Multi-perspective** transdisciplinary education enriched students' learning experience



- Challenge provider: *"It exceeded my expectations. I was not sure how the merging of the courses would be like in practice. It is difficult to see in advance what the dynamics will be like."*
- Students: *"The combination of Change Making and Systems Thinking was really really good!"* and *"At some point students knew more than the teachers about the challenge."*
- Teachers: *"The tools given, lecture slides, and explanations were to a large extent oriented towards the challenge"* and *"Alignment between the teacher team is key."*

OUR TEAM

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* We are currently writing an international journal paper based on the data gathered.