



Research Lab (60 minutes); Topic: Co-creative and transformative learning environment /Saskia Ruijsink MSc (s.m.ruijsink@tudelft.nl), Ilse Markensteijn, Elise Blondel

Thesis labs: a transformative learning environment?

The Leiden-Delft-Erasmus Centre for Sustainability aims to accelerate the transition to a circular economy to achieve a sustainable society. Our innovative concept of Interdisciplinary Thesis Labs (see text box) is one way to challenge students, researchers, and societal organizations to work on this.

Topic: Co-creative and transformative learning environment

The **thesis lab** (see text box) approach unfolds as a transformative learning experience in practice. But we also have many questions and are in continuous search to improve our format. In this **research lab** we will further discuss and investigate its potential in a collaborative manner.

Our research question is: To what extent is the thesis lab suitable for trans-disciplinary sustainability research? Does participation in the lab result in a change in the mind-set of the various participants? We see that it works, but there are challenges.

We have applied the following **methods**: A) Identify expectations (at the start in February 2022) and asses if those were met (at the end in July 2022) in two surveys among the students and the partners from practice; B) Focus Group Discussion (in April 2022).

We will reflect with the participants of this research lab in Hasselt about the thesis lab itself, and about how we can best evaluate it, moving beyond a learning-by-doing approach.

Concretely our questions are:

1. What do you see as the strengths and weaknesses of the thesis lab approach, thinking about all the actors involved: organisers, academics, students and partners from practice?
2. How can we better evaluate and asses the thesis lab as an inter- and transdisciplinary learning environment?
3. What do you suggest as a way forward?

The programme of the research lab:

- 10 minutes: introduction of the session and the Interdisciplinary Thesis Lab approach (with a lab-student)
- 10 minutes: Q&A with a student who joined the Thesis Lab
- 30 minutes: 3 * 10-minutes interactive brainstorming around the 3 questions, using boards
- 10 minutes: wrap up

What is an Interdisciplinary Thesis Lab?

This is a half-year program for graduating master students at Leiden University, Delft University of Technology and Erasmus University Rotterdam. Around 10 students from different study programs work together on an interdisciplinary sustainability challenge from one of our societal partners. Each lab is supervised by a researcher. Each student works on an individual thesis related to the interdisciplinary challenge. They are supervised by their own university. Next to that, the students join a half-year program of 12 bi-weekly meetings. Students learn about the interdisciplinary context of their thesis topic via: in-depth lectures , a thesis group, a round table and workshops on sustainability skills and science communication. They combine their knowledge in an interdisciplinary result (its development is supported by a guided 2-days pressure cooker) and share it with the societal partners in the final presentation session.

Example: Circular Building Materials and (re)Manufacturing Hub (February-July 2022)

In the Lab 'Circular Building Hub' a consortium of five societal partners has one major challenge for 10 students from 4 different study programs: what are the potentials and limitations of a Circular Building Hub to make circular city policy a success?