

CONNECTS

Designing design principles for Transdisciplinary Challenge Based Learning

Workshop International CBL conference, April 7th 2025

Contributors:

Janina den Hertog; Judith Gulikers; Hanh Tran; Nienke Nieveen, Klaasjan Visscher, Irene Visscher-Voerman

During our CONNECTS workshop at the CBL Conference in Eindhoven, we engaged participants in co-creating design principles for three key dimensions of transdisciplinary Challenge-Based Learning (CBL): co-learning, scaffolding, and embedding. We presented a set of sub-dimensions for each main dimension, developed through our project. Participants were then invited to contribute to the development of corresponding design principles. Divided into four groups, each selected one of four pre-defined dimensions to explore in depth, namely:

1. There is room for learning surprises
2. All stakeholders (students, teachers, and societal partners) feel shared responsibility for the learning of all involved
3. Scaffolding is focused on knowledge integration, supporting the acquisition of relevant knowledge, and facilitating connections across disciplines and perspectives
4. There is a shared knowledge and innovation agenda between higher education institutions and societal stakeholders, enabling alignment with existing communities

Among these, the most popular choice was:

"All stakeholders (students, teachers, and societal partners) feel that they have shared responsibility for the learning of all involved."

Below, you'll find an impression of the workshop and a summary of the participants' contributions.

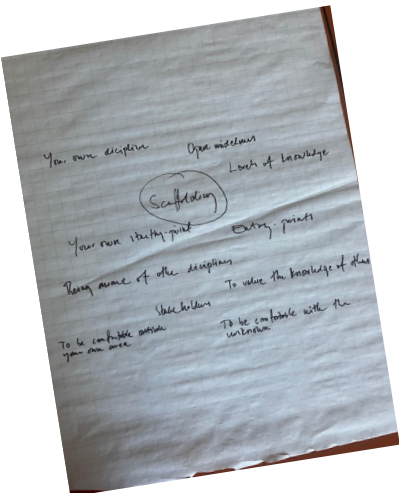
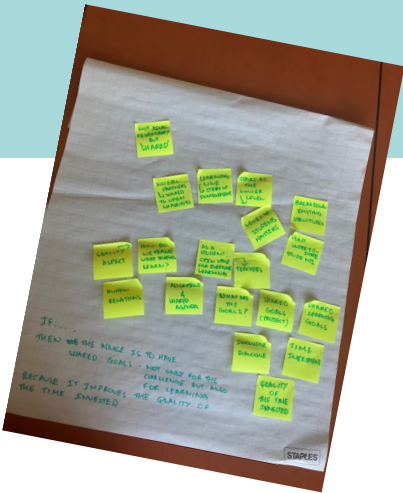




If you want to foster shared responsibility for learning among all those involved,

Then the advice is to have shared goals- not only for the deliverables and outcomes of the challenge, but also for the learning outcomes of students and partners.

Because mutually agreed-upon learning goals enhance the quality and effectiveness of the time and effort invested by everyone involved.



If you want to scaffold students' ability to integrate knowledge across disciplines

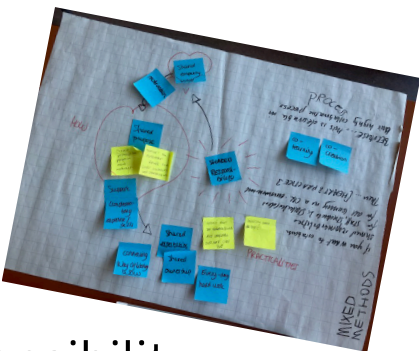
Then the advice is to embed this process explicitly into the curriculum. Design a clear progression over time, allowing students to gradually build integrative skills. Teachers must act as role models, demonstrating interdisciplinary thinking and let students engage in hands-on activities and perspective-taking exercises.

Because without explicit support and structured practice, knowledge integration does not happen spontaneously.

If you want to foster shared responsibility for learning among all those involved

Then it is essential to connect heart with practice.

Because in highly collaborative and interdisciplinary settings, shared responsibility emerges not just from formal roles, but from a genuine connection between purpose and action. Aligning values, intentions, and practices strengthens commitment and enhances the quality of collective learning.



If you want to foster shared responsibility for learning among all involved

Then start by clearly defining who the primary learner or target group is. From there, adopt alternative assessment methods that make learning visible for all stakeholders. Establish a shared understanding of what constitutes success. Clearly articulate the purpose of learning, manage expectations, monitor progress, and ensure that all parties remain equally engaged throughout the process.

Because shared responsibility for learning can only emerge when everyone understands their role, sees value in the learning process, and is committed to it.

