

# SEDA Autumn Conference 2024



**Session Title:** Evaluating Challenge-Based Learning and Challenging Evaluation : Innovative Approaches to Assessment from the ECIU University (European Consortium of Innovative Universities)

**Session Type:** Provocations (10mins)

**Main presenter(s):** Sarah Jones, INSA Toulouse

**Co presenter(s):** N/A

**Session Summary:** Challenge-based learning (CBL) fosters hands-on, collaborative learning where students address real-world challenges whilst working in international and interdisciplinary teams and in collaboration with their teachers and external partners. Yet effective CBL evaluation remains unclear, with teachers often relying on traditional methods. This paper explores the tension between CBL's call for student-driven evaluation and established pedagogical norms, particularly in the context of INSA Toulouse, an engineering university in France, where these practices challenge long-held disciplinary beliefs.

**Session Outline:** Challenge-based learning (CBL) is a pedagogical framework that aims to create a collaborative and hands-on experience of teaching and learning for both students and teachers (Johnson and Cummins, 2009). It asks students to identify global challenges (called “Big Ideas”), pose probing questions, and advancing towards a solution to a real-world challenge whilst collaborating with their teachers and external partners such as companies or communities (Malmqvist, 2015). In a CBL approach, the students are both creator and definer of their own knowledge and learning experience.

The European Consortium of Innovative Universities (ECIU) has adopted CBL as the underlying pedagogical principle for its cross-consortium learning opportunities, with the objective that this approach will foster both international collaboration and enrich students’ learning by developing soft skills otherwise neglected by their traditional degrees (ECIU University, 2021). As of 2024, there have been 46 challenges offered across the alliance relating to themes such as the circular economy, resilient communities, and sustainable engineering.

However, in my experience working with CBL as an ECIU Academic Developer, the practical aspects of assessing challenges remain unclear. The CBL framework posits that teachers should guide their students to help create their own forms of evaluation, developing both student autonomy and metacognitive practices (CBL rubric). Yet in practice, teachers and even students often resort to more traditional evaluation techniques for their Challenges, particularly those derived from Problem- and Project-based learning. For example, at INSA Toulouse, a French research-intensive engineering grande école, this approach runs counter to many teachers’ most deeply-held beliefs about both pedagogy and their own discipline. In this

provocation session, I will explore what these practices reveal about the limits of CBL, as well as how CBL forces us to rethink approaches to evaluation and assessment.



**References:** ECIU University (2021). Challenge-Based Learning: A Framework for Collaborative and Innovative Learning Experiences in Higher Education.

Johnson, L., Adams, S., & Cummins, M. (2009). Challenge-Based Learning: An Approach for Our Time. The New Media Consortium.

Malmqvist, J., Rådberg, K. K., & Lundqvist, U. (2015). 'Comparative analysis of challenge-based learning, project-based learning, and problem-based learning in engineering education'. 10th International CDIO Conference.

Challenge-Based Learning, n. d., 'CBL Rubric, Date accessed: 13.09.2024, <https://www.challengebasedlearning.org/project/cbl-rubric/>