UM Education Research Day 2026 – Poster gallery

From Classroom to Community: The Educational Value of the Societal Impact Project (SIP)

by Raffaele Altara (FHML)

The Societal Impact Project (SIP) is an innovative educational initiative that challenges students to address real societal issues through collaboration with community partners, and peers from diverse backgrounds. Rather than focusing solely on disciplinary knowledge, SIP aims to foster student development through authentic, impact-driven learning experiences.

This poster presents preliminary insights from the implementation and evaluation of SIP within the Faculty of Health, Medicine and Life Sciences. Drawing on student and coach reflections, course evaluations, and project outcomes, it explores how participation in societal impact projects contributes to the development of key competencies such as teamwork, communication, leadership, self-directed learning, and stakeholder engagement.

Particular attention is given to the role of transdisciplinary collaboration and the opportunities and challenges associated with integrating societal engagement into higher education curricula. The poster also reflects on how students experience autonomy, responsibility, and meaningful engagement when working on projects with potential impact beyond the university.

The aim is to stimulate discussion on how authentic societal challenges can be embedded in university education and how impact-oriented learning environments can support both student growth and community engagement.

Co-creation and Co-learning in Transdisciplinary Higher Education: A Systematic Review

by Yuanyuan Zhu (FHML)

Transdisciplinary education (TDE) prepares students to address complex problems. Co-creation and co-learning involve students and societal actors jointly addressing challenges and learning from each other. However, how they are designed and what outcomes they produce remain insufficiently synthesized. This systematic review examined (1) characteristics of co-creation and co-learning, (2) research approaches used to study them, and (3) outcomes for students, educators, and actors. Of 297 records screened, 25 studies were included. Preliminary findings show while some studies involved societal actors mainly as solely a source of input for problems, others

engaged them as active participant in co-creation and co-learning. Features of TDE included real-world challenges, collaborative learning activities, and facilitative educator roles. Most studies used qualitative or mixed-methods designs. Reported outcomes primarily concerned students' transdisciplinary competencies, while educators' and societal actors' experiences were less frequently evaluated. Findings highlight the need for active actor engagement and evaluation of actor experiences.

Promoting meaningful reflection: The mentor's role

by Joedith López Cuello (FPN), Anke Sambeth (FPN)

Reflection and mentoring are increasingly central to higher education, yet including reflective activities does not guarantee authentic engagement. Evidence that mentoring strengthens reflective skills comes mainly from professional training contexts and could be extended to broader academic settings. Drawing on Self-Determination Theory, this study examined the resources mentors use to encourage university students' reflection and the challenges they encounter, organized around autonomy, competence, and relatedness. Semi-structured interviews with 24 academic staff in formal mentoring roles were analyzed using content analysis. Mentors supported autonomy by letting mentees choose topics and make mistakes; competence through goal-setting, reflective questioning, and challenging and strength-based feedback; and relatedness through an informal, humorous style in a non-judgmental atmosphere. Challenges included student resistance to reflection, restrictive tools and formats, lack of formal preparation, and barriers to building trust. Formalizing mentor training and converting mentors' tacit knowledge into shared, explicit resources could strengthen reflective mentoring in higher education.

When Disruption Drives Reflection: Event Characteristics & Student Self-Reflection

by Joedith López Cuello (FPN), Anke Sambeth (FPN)

Reflection is increasingly recognized as essential in higher education for promoting active learning, employability, and professional development. Therefore, recent approaches have focused on mapping the events that authentically trigger reflection; however, little is known about which characteristics of these events prompt student' self-reflection over time. This study applies Event System Theory to investigate the influence of specific event characteristics—novelty, disruption, and criticality—on student reflection. In a five-week longitudinal study, 130 university students reported a significant weekly event and rated its characteristics, alongside their self-reflection. Linear mixed-effects analyses revealed that event disruption positively predicted self-reflection both within and between students, while novelty and criticality did not. These

findings suggest that reflection among university students is primarily stimulated by events that disrupt established routines, rather than by novel or highly critical experiences. Implications include designing educational activities that intentionally challenge students' habitual practices to foster meaningful reflection.

AI friend or foe: A perspective in Italian Physiotherapy education

by Rafaelle Sabot (FHML)

Artificial Intelligence (AI) is reshaping medical education, yet the perspective of physiotherapy educators, the pedagogical gatekeepers of the profession, remains largely under-explored. While a growing body of research has begun to map the perceptions and usage patterns of both physiotherapy students and practicing clinicians, the educator's voice remains a missing link in literature.

This qualitative study utilized semi-structured interviews with a purposive sample of 12 educators from the Universities of Trieste and Udine. Adopting a social constructivist framework integrated with the Technology Acceptance Model (TAM), data were analyzed using a deductive-inductive thematic analysis.

Analysis revealed that educators' attitudes are shaped by institutional culture and professional identity. Participants recognized AI's utility for administrative and content creation tasks, they expressed significant skepticism regarding its clinical accuracy for patient care. Key barriers identified include a "Digital Divide" caused by generational gaps in technical literacy and a lack of formal university policy or training.

This research highlights a conflict between the efficiency of AI and the preservation of human-centered clinical care. The findings provide evidence-based insights for the Italian academic community to develop institutional guidelines.

Co-Creating an Educational Teacher Portal

by Raul Pârâu (FSE/EDLAB), Nikolaos Zouros (FSE/EDLAB), Gaby Lutgens (EDLAB), Martijn Boussé (FSE)

How can we help lecturers quickly find the right educational support and expertise without getting lost in an overload of information? And how can and/or should education research be integrated into the portal?

Visit us in the poster gallery to be among the first to test an online teacher information portal we've been building to solve this problem. The portal combines a chatbot and a search feature, offering different ways of navigating educational resources, from quick access to deeper exploration. Your experiences and feedback will directly steer the development of the portal.

You can also attend our workshop in session round 2 (11:30-13:00) to learn more about our process and progress, and develop ideas in collaboration with other participants.

Reliable semi-automatic grading of open-ended exam questions with LLMs and conformal prediction

by Dennis Bams (SBE), Evgueni Smirnov (FSE), Stefan Straetmans (SBE), Filip Schlembach (FSE), Mikhail Glazunov (FSE), Enrique Hortal (FSE)

Open-ended exam questions show whether students understand the material, but grading them takes much examiner time, and two graders rarely give the same grade. This project, a collaboration between SBE and FSE funded by an EDLAB Education Research Grant, studies how far large language models (LLMs) can support the grading while the examiner remains responsible. Because exam answers are personal data, three open-weight models run on the university's own GPU cluster. In four pilot studies on public data sets (about 7,300 graded answers), the agreement between the models and the teacher (kappa 0.66–0.93) is at or above the agreement the literature reports between two human graders on comparable exams, and on a par with a commercial cloud model. Where the three models agree, in 39–53% of the answers, their grade equals the teacher's in 78–86% of cases. A statistical guarantee per answer, based on conformal prediction, proved hard to obtain, partly because the examiner's grade is itself not a fixed reference. The poster presents these preliminary findings and the next step: examiners review model proposals that come with a confidence level, to measure consistency and time savings.