

The Future Learning Initiative Advisory Board Meeting

October 27, 2023

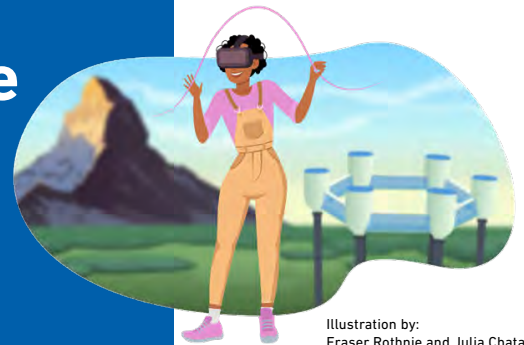


Illustration by:
Fraser Rothnie and Julia Chatain

13:00 Welcome and Updates on the Future Learning Initiative (FLI)

Manu Kapur, Professor, ETH Zurich

13:10 Welcome Note

Günther Dissertori, Rector, ETH Zurich

Brief Reports & Presentations

I. Project-based and cross-sectional / longitudinal studies

13:15 Empowering Excellence: Unveiling the Dynamic Journey of Project-Based Learning for Electrical Engineering at the D-ITET Center

Michele Magno

13:30 Gender Differences in Math Anxiety and in Positive Feelings Towards Mathematics: Evidence from ETH Zurich STEM Students

Alex von Bergen

13:45 Motivational Pathways during the First Bachelor Year at ETH Zurich – Pilot Results from RoADS

Michal Berkowitz

14:00 Break

II. Embodied Learning

14:15 Computer-Based Virtual Environment Simulations for Differential Diagnosis in Medical Education

Christian Fässler

14:30 Grasping Mathematics in Virtual Reality

Julia Chatain

14:45 Ethics Education

Manu Kapur

15:00 Linking the Design of Informal Learning Spaces to Student Use and Satisfaction

Beatrix Emo (online), Grégoire Farquet

15:15 ALETHA: A Mixed Reality for an Enhanced Lab Course on Microfluidics

Simone Schürle, Professor, ETH Zurich

15:30 Embodied Quantum Chemistry Learning from Haptic Feedback

Charlotte Müller

15:45 Break

III. Productive Failure (PF) and Preparation for Future Learning (PFL)

16:00 The light and dark side of emotions in learning: A case study of shame during failure-driven problem-solving?

Tanmay Sinha (online), Professor, Nanyang Technological University, Singapore

16:15 Preparing to Learn Linear Algebra: Problem-solving before Instruction for University Mathematics

Vera Baumgartner

16:30 Active before passive tasks improve long-term visual learning in difficult-to-classify skin lesions

Nadja Beeler

16:45 Narratives in University Biology Education: Benefits, Challenges, and Perspectives

Samuel Tobler

17:00 Break

17:15 *Keynote:* How Do Learners Discern Mathematical Structure? The Roles of Perceptual Learning, Action, and Collaboration

Martha W. Alibali, Vilas Distinguished Achievement Prof. of Psychology, University of Wisconsin–Madison, USA

IV. Neural Correlates of Learning

17:45 Neural Bases of Intuitive Physical Inference

Gabrielle Zbaeren

18:00 Heart and Brain: The Physiological and Neural Signatures of Learning Mathematics

Cléa Formaz (online)

18:15 How does expertise shape the brain?

Hanna Poikonen

Wrapping Up

18:30 Discussion

18:45 Apéro