# Biology education research to support innovation in undergraduate biology teaching

Life Sciences Switzerland (<u>LS2</u>), in collaboration with the University of Zurich and the ETH, has the pleasure to invite you to an **exceptional series of interactive events** with **Prof. Kimberly D. Tanner** from San Francisco State University.

#### When: March 27 to 30, 2023

Location: Zürich (for details, see specifics below)

### Talk #1 (Monday March 27)

LS2 and the joint UZH/ETH colloquium series on research in teaching and learning warmly invite you to a public guest lecture:

**Prof. Dr. Kimberly D. Tanner**, San Francisco State University, Department of Biology, Director of "The Science Education Partnership and Assessment Laboratory" (SEPAL)

# Title: Talk Matters: Investigating the nature of non-content classroom language – instructor talk – that may mediate student inclusion, engagement, and learning

Through the language they use, instructors create classroom environments that have the potential to impact learning by affecting student motivation, resistance, belonging, and self-



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efficacy. However, despite the critical importance of instructor language to the student experience, little research has investigated what instructors are saying in undergraduate classrooms that is not about content. We systematically investigated instructor language not directly relate to content and defined this as "Instructor Talk." Evidence will be presented on the nature and prevalence of Instructor Talk from dozens of biology courses, and emergent research frameworks will be shared that enable the study of Instructor Talk for both research and instructor professional development. Findings suggest that non-content instructor language may be an underappreciated variable influencing classroom inclusiveness and student learning.

#### **Time and Location:**

16.15-17.45, University of Zurich, Rämistrasse 71, 8006 Zürich, Room KOL-G-209. Also via Zoom (Meeting ID: 697 3719 1796, Passcode : 434637)

Questions? contact sara.petchey@uzh.ch

## Talk #2 (Thursday March 30)

Life Sciences Switzerland, the UZH Department of Evolutionary Biology and Environmental Studies, and the UZH Institute of Education warmly invite you to a public guest lecture:

**Prof. Dr. Kimberly D. Tanner**, San Francisco State University, Department of Biology, Director of "The Science Education Partnership and Assessment Laboratory" (SEPAL)

# Title: Investigating Differences in How Biological Novices and Experts Understand the Natural World – Card Sorting, Superheroes, and Intuitive Reasoning

How do experts structure their thinking about the concepts in their discipline? How is this different from the way those new to the field, novices, approach these same ideas? To what extent do students organize their disciplinary knowledge around surface versus deep features of the discipline? How might intuitive ways of knowing underlie common misconceptions embraced by biological novices? In this interactive seminar, Dr. Kimberly Tanner will engage the audience in exploring reasoning by biological novices and experts, drawing upon her own research that integrates methodologies from science education and cognitive psychology.

#### Time and Location:

12.15-13.00, University of Zurich, Irchel Campus, Winterthurerstrasse 190, 8057 Zurich, Lecture hall 03-G-95 (Campus navigation help at <u>https://www.plaene.uzh.ch/campus/I</u>)

For more details on the host seminar series, please go to <u>https://www.ieu.uzh.ch/seminars/full\_seminar\_list.php?seminar=BEEES</u>. Other questions? - contact <u>sara.petchey@uzh.ch</u>

### Workshops (probably March 28 and 29)

These will be highly interactive and the number of participants will therefore be limited. If you would like to receive more information on the workshops, as it becomes available, please **sign up** here: <u>https://www.picard.ch/sign-up</u>

For general information: didier.picard@unige.ch