

Dr. Christian Thurn

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Open Science Framework: <https://www.osf.io/cnu35>

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[Department website](#)

[ResearchGate](#)

[Google Scholar](#)

[LinkedIn](#)



ACADEMIC EDUCATION

- 09/2017 – 12/2021 **Dr. sc. ETH** (No predicates are given at ETH Zurich)
Thesis: *Change in Conceptual Understanding: The Role of Learning Opportunities, Prior Knowledge, and Intelligence* (Prof. Elsbeth Stern, Prof. Ismo Koponen, Prof. Christoph Hölscher); Department of Humanities, Social and Political Sciences, ETH Zurich
- 04/2016 – 07/2017 **MSc in Psychology** (with distinction)
Department of Psychology, University of Konstanz
- 10/2012 – 03/2016 **BSc in Psychology**
Department of Psychology, University of Konstanz
- 09/2014 – 02/2015 **Erasmus Exchange Study**
Università degli Studi di Padova, Italy

ACADEMIC EMPLOYMENT

- 2023 – Present **Postdoctoral Researcher & Lecturer (Oberassistent) for Science Education**
Department of Humanities, Social and Political Sciences, ETH Zurich
- 2024 **Visiting Researcher** at the Department of Science Education, University of Copenhagen
- 2022 – 2023 **Postdoctoral Researcher & Lecturer for Science Education**
Department of Humanities, Social and Political Sciences, ETH Zurich
- 2022 **Visiting Researcher** at the Department of Physics
University of Helsinki
- 2017 – 2021 **Doctoral student**
Department of Humanities, Social and Political Sciences, ETH Zürich
- 2014 – 2017 **Research assistant:** University of Konstanz
- 2015 **Intern:** Neurology station at Katharinenhospital, Stuttgart, Germany
- 2015 **Intern:** ETH Zürich, Zürich, Switzerland
- 2015 **Intern:** IAP Institut für Angewandte Psychologie, ZHAW, Switzerland
- 2014 **Intern:** Cubia AT, Konstanz

PUBLICATIONS

Publications in Peer Reviewed Journals

1. White, M., Edelsbrunner, P. A., & **Thurn, C. M.** (2024). The conceptualisation implies the statistical model: implications for measuring domains of teaching quality. *Assessment in Education: Principles, Policy & Practice*, 31(3–4), 254–278.

- <https://doi.org/10.1080/0969594X.2024.2368252>
2. Edelsbrunner, P. A., & **Thurn, C. M.** (2023). Improving the utility of non-significant results for educational research: A review and recommendations. *Educational Research Review*, 42, 100590. <https://doi.org/10.1016/j.edurev.2023.100590>
 3. **Thurn, C.M.**, Edelsbrunner, P.A., Berkowitz, M., Deiglmayr, A., Schalk, L. (2023). Questioning central assumptions of the ICAP framework. *npj Science of Learning* 8, 49. <https://doi.org/10.1038/s41539-023-00197-4>
 4. Edelsbrunner, P.A., Sebben, S., Frisch, L.-K., Schüttengruber, V., Protzko, J., & **Thurn, C.M.** (2022). How to understand a research question—a challenging first step in setting up a statistical model. *Religion, Brain & Behavior*, 13(3), 306–309. <https://doi.org/10.1080/2153599X.2022.2070258>
 5. Hoogeveen, S., Sarafoglou, A., Aczel, B., Aditya, Y., Alayan, A.J., Allen, P.J., Altay, S., Alzahawi, S., Amir, Y., Anthony, F.V., Appiah, O. K., Atkinson, Q.D., Baimel, A., Balkaya-Ince, M., Balsamo, M., Banker, S., Bartoš, F., Becerra, M., Beffara, B., ... **Thurn, C.M.**, ... Wagenmakers, E.J. (2022). A many-analysts approach to the relation between religiosity and well-being. *Religion, Brain & Behavior*, 13(3), 237–283. <https://doi.org/10.1080/2153599X.2022.2070255>
 6. **Thurn, C.M.**, Nussbaumer, D., Schumacher, R., Stern, E. (2022). The role of prior knowledge and intelligence in gaining from a training on proportional reasoning. *Journal of Intelligence*, 10(2), 31. <https://doi.org/10.3390/jintelligence10020031>
 7. Berkowitz, M., Braas, T., & **Thurn, C.M.** (2022). Sensitizing future teachers to psychological research on gender and STEM. *ETH Learning and Teaching Journal*, 3(1), 23-35. <https://doi.org/10.3929/ethz-b-000539474>
 8. Berkowitz, M., Gerber, A., **Thurn, C. M.**, Emo, B., Hoelscher, C., Stern, E. (2021). Spatial abilities for architecture: Cross sectional and longitudinal assessment with novel and existing spatial ability tests. *Frontiers in psychology*. 11, 4096. <https://doi.org/10.3389/fpsyg.2020.609363>
 9. **Thurn, C. M.**, Hänger, B., & Kokkonen, T. (2020). Concept mapping in magnetism and electrostatics: Core concepts and development over time. *Education Sciences*, 10(5), 129. <https://doi.org/10.3390/educsci10050129>

Book Chapters

10. **Thurn, C. M.** (2024). Konzeptwechsel, Konzeptwandel oder Konzeptprävalenz?: Aktuelle Perspektiven auf das Lernen von Konzepten. In S. Schröder & S. Faulstich (Ed.), »Conceptual Change« in den »weichen« Schulfächern: Didaktische Herausforderungen für den kultur- und sozialwissenschaftlichen Unterricht (pp. 21-54). transcript Verlag. <https://doi.org/10.1515/9783839468968-002>

Publications in Peer-Reviewed Conference Proceedings

11. Nussbaumer, D., **Thurn, C. M.**, Schumacher, R., & Stern, E. (2017, July 26-28). Who makes use of prior knowledge in a curriculum on proportional reasoning? in: Gunzelmann, G., Howes, A., Tenbrink, T. and Davelaar, E., *Proceedings of the 39th Annual Meeting of the Cognitive Science Society*, London, pp. 2809 – 2814.

Manuscripts in Preparation

• **Thurn, C. M.**, Peteranderl, S., Edelsbrunner, P., Deiglmayr, A., Keller, J., Schumacher, R., Stern, E. *Cross-Fertilization of Content and Strategy Knowledge: Bayesian Insights into Fostering Scientific Literacy in Physics Education* [Manuscript under review]. Department of Humanities, Social and Political Sciences, ETH Zürich.

- **Thurn, C. M.** & Frisch, L. K. *To medicide or not to medicide, that is the question – Attitudes towards medically assisted suicide*. [Revise & resubmit]. Department of Humanities, Social and Political Sciences, ETH Zürich.
- **Thurn, C. M.** *Who voted "guilty"? Audience judgment in a theater play about terrorism in 25 countries*. [Manuscript in preparation]. Department of Humanities, Social and Political Sciences, ETH Zürich.
- **Thurn, C. M.**, Braas, T., & Berkowitz, M. *Means, tails and fairytales–Fabulous methods for investigating gender effects*. [Manuscript in preparation]. Department of Humanities, Social and Political Sciences, ETH Zürich.

Web-based Publications – Scientific Outreach

- **Thurn, C.M.**, Meier, M. (2024, May 20th). [Vom Kinderblick zum Erwachsenendenken: Wie sich Konzepte entwickeln](#). [From a child's perspective to adult thinking: How concepts develop]. *The Inquisitive Mind*.
- **Thurn, C.M.**, Daguati, S. (2024, April 16th). [ConceptMappR: A digital tool for creating and analyzing concept maps](#). *ETH Refresh teaching*.
- Hosseinzadeh, M., **Thurn, C.M.** (2024, March 8th). [Die Illusion der Effizienz: Warum uns Multitasking in die Irre führt](#). [The illusion of efficiency: How multitasking leads us astray]. *The Inquisitive Mind*.
- **Thurn, C.M.** (2023, November 15th). [A Step Forward or a Step Back in Overcoming the Research-Practice Gap? Questioning Central Assumptions of the ICAP Framework](#). *Springer Nature Research Communities*.
- **Thurn, C.M.** (2022, March 14th). [Mehr als 'Connecting the Dots'? Was Netzwerkanalysen abbilden können](#). [More than 'Connecting the Dots'? What network analysis can depict]. *The Inquisitive Mind*.
- **Thurn, C. M.**, Voulpiotis, K., Ledoux, C. (2022, January 25th). [Research – Excellence + Culture = Open-minded](#). *ETH Zürich Staffnet Blog*.
- **Thurn C. M.** (2020, October 28th). [Boosting team spirit and diversity at ETH: a concrete vision](#). *ETH Zürich Staffnet Blog*.
- Edelsbrunner, P. A., **Thurn, C. M.** (2015, December 14th). [Structural equation modeling: What is it, what does it have in common with hippie music, and why does it eat cake to get rid of measurement error?](#) *JEPS Bulletin*.

AWARDS & HONORS

- 2017 **Honor for social commitment**
awarded by the student representative board, University of Konstanz based on a voting by all graduating psychology students in 2017

GRANTS & FELLOWSHIPS

- 2024 **Research Grant: Educational Podcasts "Crime in Statistics for your Coffee Break"**
(CHF 27'700) awarded by Innovedum, ETH Zürich.
- 2024 **Travel Grant: Funding for scientific exchange in Denmark** (CHF 4'750)
awarded by the Swiss National Science Foundation (SNSF), Bern.
- 2023 **Research Grant: Developing an Analysis Tool of Concept Maps** (CHF 27'881)
awarded by Innovedum, ETH Zürich.
- 2022 **Travel Grant: To attend the ISIR conference 2022 in Vienna, Austria** (1'000\$)
awarded by the Institute for Mental Chronometry
- 2021 **Research Grant: Additional funding for networking activities** (CHF 2'829)
together with Lisa K. Frisch; awarded by the Graduate School of the Faculty of Arts and Social Sciences, University of Zurich.
- 2021 **Travel Grant: Funding for academic short visit in Finland** (CHF 2'650)

awarded by the Aebli-Näf Stiftung, Bern.

INVITED TALKS (external)

1. **Thurn, C. M.** (2024, June 19). *Exploring knowledge networks: The Interplay of concept maps and questionnaires in physics* [Invited talk]. KUPER Meeting (Prof. Jesper Bruun), University of Copenhagen, Denmark.
2. **Thurn, C. M.** (2023, October 9 -10). *Discover hidden connections: Network analysis for education researchers with R* [Invited Workshop]. Würzburg International Autumn School on Lasting Learning (WIASLL) 2023, University of Würzburg.
3. **Thurn, C. M.** (2023, October 6). *Psychometrics in Education Science* [Invited Workshop]. Prof. Michael Schneider, University of Trier.
4. **Thurn, C. M.** (2023, February 10). *Konzeptwechsel, Konzeptwandel, oder Konzeptprävalenz? Aktuelle Perspektiven auf Konzeptlernen* [Invited Talk]. Conceptual Change in den Didaktiken kultur- & sozialwissenschaftlicher Fächer, University of Bayreuth.
5. **Thurn, C. M.** (2023, February 7). *Vernetztes Wissen, Vernetztes Denken: Netzwerkanalyse in der Lernforschung anwenden* [Invited Talk]. Lehrstuhlkolloquium (Prof. Tobias Richter), University of Würzburg.
6. **Thurn, C. M.** (2022, June 16). *Examining conceptual change by network analysis* [Invited talk]. Minds Hub research group (Prof. Katariina Salmela-Aro), University of Helsinki.
7. Edelsbrunner, P., **Thurn, C., M.** (2020, February 25). *Die Interpretation und informative Nutzung nicht-signifikanter p-Werte: Ein Review, Framework und Kompetenzmodell. [The interpretation and informative use of non-significant p-values: A review, framework and competence model]* [Invited talk]. Ludwig-Maximilian-University, München.

PEER-REVIEWED CONFERENCE CONTRIBUTIONS

Legend:

P – Paper/Poster & presentation, Co – Co-author only, C – Chair for sessions at the conference, D – Discussant

1. **Thurn, C. M.** (2024, September 20). *A moral dilemma about terrorism: Predicting moral judgment in the play "Terror" by Ferdinand von Schirach* [Paper presentation]. 24th scientific meeting of German political psychology Network, Vienna, Austria. **(P)**.
2. **Thurn C. M.**, Peteranderl, S., Edelsbrunner, P., Deiglmayr, A., Keller, J., Schumacher, R., Stern, E. (2024, September 16-19). *Sustainable Effects of Early Science Education: Bayesian Evidence for the Mutual Interaction Between Experimentation skills and content knowledge*. In T. Richter, M. Ebersbach, V. Kubik (chairs), Fachgruppen-Symposium: Lasting Learning – Part 3: Interleaved Practice, Distributed Practice, Perceptual Disfluency, and Control-of-Variables Strategy in Educationally Relevant Contexts. [Symposium presentation]. 53th Congress of the German Psychology Society, Vienna, Austria. **(P)**.
3. Dagupati, S., **Thurn, C. M.** (2024, September 16-19). *Students' opinions on a digital tool for constructing and analyzing concept maps* [Paper presentation]. 53th Congress of the German Psychology Society, Vienna, Austria. **(Co)**.
4. Dagupati, S., Rüttsche, B., **Thurn, C. M.** (2024, August 27-30). *Describing Conceptual Knowledge in Concept Maps by Network Analysis* [Paper presentation]. 13th International Conference on Conceptual Change, Munich, Germany. **(Co)**.
5. **Thurn C. M.**, Peteranderl, S., Edelsbrunner, P., Deiglmayr, A., Stern, E., Keller, J., Schumacher, R. (2024, August 27-30). *Vary One Thing at a Time: The Control of Variable Strategy in Physics Learning*. In G. Benke (chair), Perspectives and Positionings in Teaching for Conceptual Understanding. [Symposium presentation]. 13th International Conference on Conceptual Change, Munich, Germany. **(P)**.
6. Edelsbrunner, P., Dagupati, S., Bichler, S., Brod, G., **Thurn, C. M.** (2024, August 27-30).

- Research on the Effects of Prior Knowledge on Learning: Where to Go Next?* [Roundtable presentation]. 13th International Conference on Conceptual Change, Munich, Germany. (P).
7. **Thurn C. M.**, Edelsbrunner, P., Berkowitz, M., Schalk, L., Deiglmayr, A. (2024, August 27-30). *A Model for Teaching for Conceptual Change? Six Challenges Regarding the ICAP Framework* [Paper presentation]. 13th International Conference on Conceptual Change, Munich, Germany. (P).
 8. **Thurn C. M.**, Mathis, C., Faulstich, S., Schröder, S. (2024, August 27-30). *Conceptual Change in the Social and Cultural Sciences* [Book presentation]. 13th International Conference on Conceptual Change, Munich, Germany. (P).
 9. **Thurn, C. M.**, Braas, T., Berkowitz, M. (2024, July 18-20). *Means, Tails, and Fairytales – Ways to Investigate Gender Effects* [Paper presentation]. Network Gender & STEM Conference 2024, Heidelberg University, Heidelberg, Germany. (P, C)
 10. **Thurn, C. M.**, Daguati, S., Rüttsche, B. (2024, April 18-19). *ConceptMappR: A digital tool for creating and analyzing concept maps* [Paper presentation]. 6. Tagung Fachdidaktiken, PH Thurgau, Kreuzlingen, Switzerland.
<https://polybox.ethz.ch/index.php/s/Uuh8eUaGSZwA1Ku> (P).
 11. **Thurn, C. M.**, Sebben, S., Kovacevic, Z. (2023, September 11- 15). *Shakespeare's Small World and Big Connections: Replicating Stiller, Nettle, & Dunbar (2003)* [Paper presentation]. 16. Tagung der Fachgruppe Methoden der Deutschen Gesellschaft für Psychologie, Konstanz, Germany. <https://doi.org/10.3929/ethz-b-000649172> [link](#) (P).
 12. **Thurn, C. M.**, Edelsbrunner, P. A., Schumacher, R., Stern, E. (2023, August 22-27). *Preparation for Future Learning in Physics: The Importance of Overlap in Prior Knowledge*. In T. Simacek (chair), *The Role of Prior Knowledge in Learning*. [Symposium presentation]. EARLI 2023, Thessaloniki, Greece. <https://doi.org/10.3929/ethz-b-000649170>
<https://polybox.ethz.ch/index.php/s/HIAnsUQYVe59FuE> (P).
 13. **Thurn C. M.** (2023, August 22-27). In K. Lesperance (chair), *Understanding and Combatting Gender Differences in Student Motivational Factors in STEM*. EARLI 2023, Thessaloniki, Greece. (D).
 14. **Thurn, C. M.** (2023, August 22-27) *Identifying central misconceptions via network analysis*. [Paper presentation]. EARLI 2023, Thessaloniki, Greece. <https://doi.org/10.3929/ethz-b-000649171> <https://polybox.ethz.ch/index.php/s/dQzpMc63oxeUNus> (P).
 15. **Thurn, C. M.** (2023, August 20-21). *Let's Talk about Writing – A Poster on Academic Writing Habits for Researcher Education* [Roundtable presentation]. JURE 2023, Thessaloniki, Greece <https://doi.org/10.3929/ethz-b-000649167> [link](#) (P).
 16. **Thurn, C. M.**, Kause, A., & Frisch, L. K. (2022, September 10-15). *A moral dilemma about terrorism: Predicting decisions in the play 'Terror' by Ferdinand von Schirach*. [Paper presentation]. 52nd Congress of the German Psychology Society, Hildesheim, Germany. <https://www.uni-hildesheim.de/dgps2022/conference-program/> (P).
 17. **Thurn, C. M.**, & Frisch, L. K. (2022, September 04-06). *To Medicide or not to Medicide, that is the Question – Attitudes towards Medically Assisted Suicide*. In **C. M. Thurn** (chair), *Moral Judgment and Decision Making*. [Symposium presentation]. 17th Conference of the Swiss Psychological Society, Zürich, Switzerland (P, C).
 18. **Thurn, C. M.** (2022, August 24-27). *Intervention Effects on Conceptual Co-existence in Magnetism and Electrostatics*. In P. Edelsbrunner (chair), *Cognitive Conflict between Science and Intuition: New Empirical Investigations and a Cognitive Model*. [Symposium presentation]. 12th International Conference on Conceptual Change, Zwolle, The Netherlands. <https://www.windesheim.nl/getmedia/754c51c2-820d-46c2-a001-7def54ab063d/Book-of-abstracts-12th-conference-on-CCT-Zwolle-August-2022.pdf> (P).
 19. **Thurn, C. M.**, Hänger, B., Schumacher, R., & Stern, E. (2022, August 24-27). *The impact of*

- prior knowledge and intelligence on understanding the physical field concept*. [Poster presentation]. 12th International Conference on Conceptual Change, Zwolle, The Netherlands. <https://www.windesheim.nl/getmedia/754c51c2-820d-46c2-a001-7def54ab063d/Book-of-abstracts-12th-conference-on-CCT-Zwolle-August-2022.pdf> (P, C).
20. **Thurn, C. M.**, Markwalder, U., Edelsbrunner, P. A., Stühlinger, M., & Stern, E., (2022, July 25-27). *Quo vadis, student? Predicting secondary school streaming in Switzerland from students' intelligence, interest, and school grades*. [Paper presentation]. ISIR 2022, Vienna, Wien (P).
 21. **Thurn, C. M.**, Hänger, B., Edelsbrunner, P. A., Deiglmayr, A., Schumacher, R., & Stern, E. (2022, July 18-22). *Network models of conceptual understanding in magnetism*. [Poster presentation]. JURE 2022, Porto, Portugal. <https://doi.org/10.3929/ethz-b-000559131> (P, C).
 22. **Thurn, C. M.** (2022, June 16-18). *External causes of bias in moral judgment*. [Poster presentation]. Mind and Matter 2022: Foundations of Information, Intelligence and Consciousness, Helsinki, Finland. https://www2.helsinki.fi/sites/default/files/atoms/files/305494_mind_and_matter_2022_abstracts_0.pdf (P).
 23. Edelsbrunner, P. A., & **Thurn, C. M.** (2022, March 09-11). *A Diffusion Model-Approach to the Retrieval of Conceptual Knowledge in Science*. [Poster presentation]. 9. Jahrestagung der Gesellschaft für Empirische Bildungsforschung, online, Germany. https://www.researchgate.net/publication/359330085_A_Diffusion_Model-Approach_to_the_Retrieval_of_Conceptual_Knowledge_in_Science (Co).
 24. **Thurn, C. M.**, & Braas, T., Berkowitz, M. (2021, August 23-27). *Means, Tails and Fairytales – Fabulous methods to investigate gender differences*. [Paper presentation]. 19th Biennial EARLI Conference, online, Belgium (P, C).
 25. Edelsbrunner, P. A., & **Thurn, C. M.** (2021, August 23-27). *Current Debates in Psychometrics and Applied Statistics: Implications for Educational Research*. [Collaborative Workspace]. 19th Biennial EARLI Conference, online, Belgium (P, C).
 26. **Thurn, C. M.**, & Kokkonen, T. (2021, July 5-10). *Revealing novice-expert differences in knowledge structures*. [Paper presentation]. Networks 2021 - a joint Sunbelt and NetSci conference, online, USA. <https://drive.google.com/file/d/1gNxVAMD56kfvezchowjw6b0irKUoIM51o/view> (P).
 27. Eberli, R., Nussbaumer, D., & **Thurn, C.** (2020, August 10-12). *From implicit to explicit in learning STEM subjects - 'Control of variables' strategy in physics*. [Paper presentation]. EARLI SIG 15 – Special Educational Needs Biennial Meeting, online, UK (Co).
 28. Edelsbrunner, P. A., & **Thurn, C. M.** (2019, September 15-18). *Misinterpretations of non-significant p-values: A Review and a Competence Model for Teaching*. [Paper presentation]. 14. Tagung der Fachgruppe Methoden der Deutschen Gesellschaft für Psychologie, Kiel, Germany. http://www.fgme2019.de/fileadmin/user_upload/Programm_FGME2019_20190820.pdf (P, C).
 29. Edelsbrunner, P. A., Stern, E., & **Thurn, C. M.** (2019, September 09-12). *Beyond Cohen's rule of thumb: When is an intervention effective from a statistical point of view?* [Paper presentation]. paEpsy 2019, Leipzig, Germany. <https://osf.io/da7x3/> (P).
 30. **Thurn, C. M.**, Edelsbrunner, P. A., & Schumacher, R. (2019, September 09-12). *Can Early Physics Instruction Prepare for Future Learning About Magnetism?* [Paper presentation]. paEpsy 2019, Leipzig, Germany (P).
 31. **Thurn, C. M.**, Nussbaumer, D., Schumacher, R., & Stern, E. (2019, August 12-16). *Preparing Primary School Students for Acquiring Proportional Reasoning Ability*. [Paper presentation]. 18th Biennial EARLI Conference, Aachen, Germany (P, C).
 32. **Thurn, C. M.**, & Edelsbrunner, P. A. (2019, February 25-27). *Die Konsequenzen von Fehlinterpretationen nicht-signifikanter p-Werte in der Bildungsforschung: Ein Review [The consequences of*

misinterpretations regarding non-significant p-values in educational research: A review. [Paper presentation]. 7. Jahrestagung der Gesellschaft für Empirische Bildungsforschung, Köln, Germany (P).

33. Edelsbrunner, P. A., & **Thurn, C. M.** (2018, September 15-20). *Misinterpretations of non-significant p-values: Estimating their frequency and potential consequences for educational theory and policy*. [Digital poster presentation]. 51st Congress of the German Psychology Society, Frankfurt am Main, Germany (P). <https://osf.io/g5paq/>
34. Edelsbrunner, P. A., & **Thurn, C. M.** (2018, August 29–September 01). *Conceptual Notions of p-values in Educational Research*. [Paper presentation]. 11th International Conference on Conceptual Change, Klagenfurt, Austria (P).
35. **Thurn, C. M.** (2018, August 27-29). *Investigating the Interaction of Intelligence and Conceptual Change*. [Presentation of PhD project]. 2nd Summer School on Conceptual Change, Klagenfurt, Austria (P).
36. Edelsbrunner, P. A., & **Thurn, C. M.** (2018, June 10-12). *The Prevalence of Unfounded (Statistical) Inferences Based on non-significant p-values in Educational Psychology*. [Paper presentation]. Research Synthesis, Trier, Germany. <https://doi.org/10.23668/psycharchives.860> (P).

Organized Symposia (Peer-Reviewed)

1. **Thurn C. M.** (2024, August 27-30). *The Role of Executive Functions in Conceptual Change*. JURE Symposium at the 13th International Conference on Conceptual Change, Munich, Germany.
2. **Thurn C. M.** (2022, August 24-27). *Conceptual Change Research Across Ages*. JURE Symposium at the 12th International Conference on Conceptual Change, Zwolle, The Netherlands. https://www.windesheim.nl/getmedia/754c51c2-820d-46c2-a001-7def54ab_063d/Book-of-abstracts-12th-conference-on-CCT-Zwolle-August-2022.pdf

TEACHING EXPERIENCE

*I have added the score on general satisfaction from my teaching evaluations at ETH Zürich. It ranges from 1 (lowest satisfaction) to 5 (highest satisfaction). Courses are evaluated every other year.

Since 2023 **How to Develop and Implement Teaching Projects in Outdoor Education**, *ETH Zürich, Switzerland*

Co-teaching with Hanspeter Gubelmann, Adrian Zwyssig

Topics: principles of organization of outdoor projects; classroom management outdoors; interdisciplinary teaching

Spring Semester 2023	4.7
Spring Semester 2024	-
Spring Semester 2025	

2018 - 2022 **Gender Issues in Education and STEM**, *ETH Zürich, Switzerland*

co-teaching with Michal Berkowitz, Thomas Braas

Topics: Gender vs. Sex, Cognitive Sex Differences and their Assessment, Nature via Nurture, Early Preferences, Stereotypes, Attribution, Teacher Influence, Self-concept, Intervention Studies

Autumn Semester 2018	-
Spring Semester 2019	4.0
Autumn Semester 2019	4.0
Spring Semester 2020	-
Spring Semester 2021	4.2
Autumn Semester 2021	-
Spring Semester 2022	-

Since 2018	Autumn Semester 2022	4.7
	Research Methods in Educational Science , <i>ETH Zürich, Switzerland</i> co-teaching with Peter Edelsbrunner, Thomas Braas Topics: (Quasi-)Experimental and Correlational Research, Research Methods, Replicability, Generalizability	
Since 2018	Autumn Semester 2018	4.4
	Spring Semester 2019	(response rate too low)
	Autumn Semester 2019	-
	Spring Semester 2020	-
	Autumn Semester 2020	4.2
	Spring Semester 2021	4.6
	Autumn Semester 2021	-
	Autumn Semester 2022	4.2
Since 2018	Support and Diagnosis of Knowledge Acquisition Processes , <i>ETH Zürich, Switzerland</i> co-teaching with Peter Edelsbrunner/Lennart Schalk/Jens Maue/Simona Daguati Topics: Formative Assessment, Conceptual Change, Cognitive Activation, Self-directed Learning, Social Learning, Constructivism, Situated Learning, Summative Assessment	
	Spring Semester 2018	-
	Autumn Semester 2018	3.1
	Spring Semester 2019	3.8
	Autumn Semester 2019	-
	Spring Semester 2020	-
	Autumn Semester 2020	4.1
	Spring Semester 2021	3.9
	Autumn Semester 2021	-
	Spring Semester 2022	-
	Autumn Semester 2022	4-0
	Spring Semester 2023	3.5
	Autumn Semester 2023	-
	Spring Semester 2024	-
	Autumn Semester 2024	4.3
	Spring Semester 2025	
2017	R Wars II - Advanced Skills in R , <i>University of Konstanz, Germany</i> co-teaching with Florian Ermark. Topics: MANOVA, Logistic Regression, Factor analysis, IRT, Word/Text Analysis, Outlier Analysis, Logical Operators and Loops, Creating Own Functions, Using Markdown and Papaja	
2016, 2017	R Wars - Basic skills in R , <i>University of Konstanz, Germany</i> co-teaching with Florian Ermark. Topics: Data Import, Descriptive Statistics, Objects, Data Types in R, Data Management, Inferential Statistics, Graphics with generic plot functions and ggplot	
2013–2017	Student teaching assistant , <i>Statistics I and II, Test theory, Empirical practices, SPSS</i> , R.University of Konstanz, Department of Psychology	

WORKSHOPS & SEMINARS

- 08.11.2024 **Input:** Methoden zur Erfassung von Konzeptwandel [Methods for assessment of conceptual change]. *Workshop zur Delphi-Studie: Conceptual Engineering im Unterricht* (Dr. Markus Bohlmann), University of Münster.
- 14.10.2024 **Workshop:** Integrating sustainability in every field. *Booster workshop for ETH teaching staff.*
- 15.09.2024 **Workshop:** Discover and Understand Connections: Network Analysis for Psychologists with R (co-teaching with Zoran Kovacevic), *53th Congress of the German Psychology Society, Vienna, Austria.*
- 07.06.2024 **Input:** Networks of Knowledge: Uncovering Core Concepts and Misconceptions in Primary School Physics. *Imperfect Pitch* (Prof. Adrienne Traxler), University of Copenhagen.
- 08.11.2023 **Input:** Visualization in R. Peer Mentoring Group for Methods and Statistics, University of Zürich.
- 07.11.2023 **Workshop:** Lernen und Lernprozesse – Aktuelles aus der Lernforschung (co-teaching with Mojgan Hosseinzadeh). Counselling & Coaching team, *ETH Zürich.*
- 01.03.2023 **Input:** The Write Stuff: How ChatGPT is Changing the Game in Academic Writing. (co-teaching with Alena Thöni). Peer Mentoring Group for Methods and Statistics, *University of Zürich.*
- 18.05.2022 **Workshop:** Prüfen und Bewerten. (co-teaching with Peter Edelsbrunner). *Kantonsschule Menzingen, Switzerland.*
- 23.08.2021 **Workshop:** How to deal with non-significant p-values and make them informative. (co-teaching with Peter Edelsbrunner). *18th Biennial EARLI Conference, Online, Belgium.*
- 23.04.2020 **Workshop:** How to deal with non-significant p-values and make them informative. (co-teaching with Peter Edelsbrunner). Peer Mentoring Group for Methods and Statistics, *University of Zürich.*

SERVICE

Professional Activities

- 2024 **Conference organization:** Member of the Conference Organization Committee for the EARLI SIG 03 summer school, Munich, August 27-30.
- 2024 **Summer school organization:** Head of the Organization Committee for the 4th EARLI SIG 03 summer school on conceptual change, Munich, August 26-27.
- 2022 **Conference organization:** Member of the Conference Organization Committee for the EARLI SIG 03 conference on Conceptual Change, Zwolle, August 24-27.
- 2022 **Colloquium organization:** Kolloquium Lehr-Lern-Forschung und Fachdidaktik (ETH Zürich/Uni Zürich – co-hosted by Elsbeth Stern, Eva Becker, Kai Niebert, Fritz Staub)
- Since 2017 Member of the peer mentoring group of methods and statistics at the University of Zurich

Society Memberships

- Since 2019 European Association for Research on Learning and Instruction (EARLI)
- Since 2022 Deutsche Gesellschaft für Psychologie (DGPS)
- Since 2024 Deutscher Hochschulverband (DHV)

Peer-Review Activities for Journals

- European Journal of Psychological Assessment
- Learning & Instruction
- Computer Science Education

- International Journal of Artificial Intelligence in Education
- European Journal of Science and Mathematics Education
- ETH Learning & Teaching Journal
- PlosOne
- Seeds of Science
- Education Sciences
- Journal of Intelligence
- Sustainability

Didactics & Sensitivity Training

- 2024 **Improving teaching slides with simple means**, *ETH Zürich*
- 2023 **Peer Feedback on Teaching**, *ETH Zürich*
- 2023 **Presenting Science to Non-Science Experts**, *ETH Zürich*
- 2022 **Workshop Barrier free access (Hindernisfreiheit)**, *ETH Zürich*
- 2022 **Workshop Verständlich schreiben für die Öffentlichkeit: Ein In-Mind Schreibworkshop**, *in-mind magazine*
- 2020 **Workshop Speaking up against sexism**, *SWISH ETH Zürich*
- 2019 **Teach Inspiringly with Methods of Theater**, *ETH Zürich*
- 2019 **Alternatives to Students' Presentation: Using Work Results Sustainably**, *ETH Zürich*
- 2017 **The Power of the Voice in Higher Education**, *ETH Zürich*
- 2016 **Tutors Training**, *University of Konstanz*

DEPARTMENTAL SERVICE

- Since 10.2023 Member of AVETH Sustainability, *ETH Zürich*
- Since 09.2023 Member of the Teaching Commission on Science in Perspective, *ETH Zürich*
- Since 10.2023 Member of the Association of Scientific Staff (ASST), *ETH Zürich*
- 09.2021 – 09.2023 President of the Association of Scientific Staff (ASST), *ETH Zürich*
- Since 08.2021 JURE SIG 03 Coordinator (EARLI Special Interest Group on Conceptual Change), *ETH Zürich/EARLI*
- 12.2020 – 01.2022 Member of scientific staff working group on cultural rethinking (WS 6), *ETH Zürich*
- 10.2019 – 07.2022 Scientific staff representative in the department conference, *ETH Zürich*
- 10.2017 – 09.2021 Vice President of the Association of Scientific Staff (ASST), *ETH Zürich*
- 11.2012 – 07.2017 Member and chair (2016 - 2017) of the student representative board, *University of Konstanz*
- 04.2017 – 08.2017 Student representative in the appointment committee for the professorship Methods for Intensive Data in Psychology, *University of Konstanz*
- 10.2013 – 07.2017 Member of the cross-section student council, the Board of Examiners, and the Study Commission, *University of Konstanz*
- 06.2013 – 08.2017 Member of the team of the student's teaching award (LUKS), *University of Konstanz*

Methodological Skills: Training in Research Methods

- *Introduction to Machine Learning for Psychology* (workshop by Alina Herderich, University of Zurich), 10.2021
- *Multimethod Measurement of Change - Current Approaches of Analyzing Longitudinal Multitrait-Multimethod Data* (workshop by Tobias Koch at University of Zurich), 01.2019
- *Mixed Models in R - an Applied Introduction* (workshop by Henrik Singmann at University of Zurich), 05. 2019
- 4th Swiss Doctoral School of Science Education (ETH Zürich), 01.2019
- *Mehrebenenanalysen mit R / lme4* (workshop by Johannes Hartig at University of Zurich), 12.2018

- *Mixture Modeling in Psychology* (workshop by Peter Edelsbrunner at University of Zurich), 10.2018
- *Introduction to Bayesian Inference* (workshop by Paul Bürkner at ETH Zürich), 03.2018
- *Sports Networks* (seminar by Ulrik Brandes and David Schoch at ETH Zürich), 02. – 06.2018
- *Social Data Science* (lecture by David Garcia at ETH Zürich), 02.2018
- *Multilevel modeling using R* (workshop by Michel Philipp at University of Zurich), 10.2017
- *Structural Equation Modeling with lavaan* (workshop by Yves Rosseel at University of Zurich), 09.2017
- *papaja - Prepare APA Journal Articles reproducibly with R Markdown* (workshop by Frederik Aust at University of Zurich), 09.2017

SUPERVISION

Supervision of Master theses

1. Schauenberg, R. (2025). Master Thesis (First Supervisor), University of Konstanz.
2. Keller, J. (July 2023). *Der Einfluss von explizitem Variablenkontrollstrategie-Training auf zukünftiges Lernen aus Experimenten*. [The influence of explicit variable control strategy-training on future learning from experiments]. Master Thesis (Second Evaluator), Fernuniversität Bern, Switzerland.
3. J. Biedermann, J. (July 2023) *Association of Intelligence with auditory verbal Learning and Memory in Children with Epilepsy*. Master Thesis (Second Evaluator), ZHAW Zürich, Switzerland.

Supervision of Bachelor theses

1. Becher, A.-M. (March 2024). *ADHS und das Erleben von Kritik – Weibliche Studierende im Fokus*. [ADHD and the experience of criticism - Focusing on female students]. Bachelor Thesis (First Supervisor), ZHAW Zürich, Switzerland.
2. Thöni, A. (May 2023). *Hinter den Kulissen einer Entscheidung - Eine qualitative Analyse des Einflusses von Ferdinand von Schirachs Drama «Gott» auf die subjektive Meinungsbildung der Schauspielenden zum Thema Sterbehilfe*. [Behind the Scenes of a Decision - A Qualitative Analysis of the Influence of Ferdinand von Schirach's Drama "Gott" on the Subjective Opinion Formation of Actors on the Subject of Euthanasia]. Bachelor Thesis (First Supervisor), ZHAW Zürich, Switzerland.

Supervision of Team members

Thöni, A. (intern in 2023). Exploring the use of generative AI tools such as ChatGPT, creation of Science Podcasts, conducting interviews in the ROADS project. Bachelor Thesis

Zürich, February 24, 2025