



LEAD Retreat

Wednesday, April 27, 2022

Time	Topic	Place	
07.30	Bus Departure in Tübingen	<i>Europastrasse / Central Bus Station / Fernbussteig</i>	
09.30-10.00	Arrival at the Retreat Venue & Coffee and Snacks	<i>Foyer</i>	
10.00-10.15	Welcome and Introduction <i>LEAD Co-Directors & LEAD Managing Director</i>	<i>St. Georg</i>	
10.15-11.00	New Members' Presentations <i>Cf. page 5</i>	<i>St. Georg</i>	
11.00-11.15	Organizational Information about the Retreat <i>LEAD Scientific Coordination</i>	<i>St. Georg</i>	
11.15-12.15	"AI and ML and data! Oh my! Supporting teachers' and learners' work by considering the human sides of data science" <i>Keynote by Joshua Rosenberg (University of Tennessee) Cf. page 6</i>	<i>St. Georg</i>	
12.15-13.00	Lunch	<i>Dining Area</i>	
13.00-13.45	Group Picture & Walk	<i>Meeting Point: Reception</i>	
14.00-15.00	"Designing digital media to promote learning – a holistic approach" <i>Keynote by Sascha Schneider (University of Zurich) Cf. page 6</i>	<i>St. Georg</i>	
15.00-16.15	Poster Fair with Coffee <i>Cf. page 9</i>	PhD Talk "The interplay of scientific reasoning and self-regulation in inquiry learning" by <i>Yoana Omarchevska</i> <i>Cf. page 10</i>	<i>Foyer & G104</i>
16.30-17.30	PI/Member Meeting	<i>St. Georg</i>	
18.00-19.00	Dinner <i>Randomized Seating Order</i>	<i>Dining Area</i>	
19.00-20.00	PhD Assembly	Postdoc Assembly	<i>G104 & St. Georg</i>
20.15-Open End	Social Event <i>PhD Representatives & New PhD Candidates</i>	<i>St. Georg</i>	



LEAD Retreat

Thursday, April 28, 2022

Time	Topic	Place
07.00-07.45	Early Morning Yoga <i>Fabienne Kremer & Salome Wörner</i>	Meeting Point: Reception
07.00-09.00	Breakfast	Dining Area
09.00-10.15	“The Centre for Early Mathematical Learning – Structure and research” Keynote by Korbinian Möller (Loughborough University, Centre for Early Mathematical Learning) Cf. page 7	St. Georg
10.15-10.45	Coffee	
10.45-12.00	Postdoc Talks “A meta-analysis on the effectiveness of student feedback on different aspects of teaching quality” by Sebastian Röhl “Talking to an intelligent agent for learning a foreign language: A system demo” by Xiaobin Chen “Does motivational regulation prevent academic procrastination?” by Lisa Bäumle	St. Georg
12.00-13.00	Lunch <i>Randomized Seating Order</i>	Dining Area
13.00-14.00	Social Activity – Walk <i>Rosa Lavelle-Hill</i>	Meeting Point: Reception
14.15-15.15	Special Interest Groups	Cf. page 12
15.15-15.45	Coffee Break	Dining Area
15.45-16.45	Poster Fair with Coffee <i>Cf. page 11</i>	Foyer
17.00-18.00	“Using eye-tracking as a research and pedagogical tool” Keynote by Andrea Révész (University College London) <i>Cf. page 7</i>	St. Georg
18.00-19.00	Dinner	Dining Area
20.00-Open End	Social Gathering & Campfire <i>PhD Representatives</i>	St. Georg



LEAD Retreat

Friday, April 29, 2022

Time	Topic	Place
07.00	Early Morning Run <i>Rosa Lavelle-Hill</i>	<i>Meeting Point: Reception</i>
07.00-09.00	Breakfast & Check-Out	<i>Dining Area</i>
09.00-10.00	Postdoc Talks “Project protocol overview: Co-designing and testing the feasibility of an intervention to promote empathy use in primary school teachers” <i>by Vanessa Kurdi</i> “Predicting decision-making during an intelligence test via semantic scanpath comparisons” <i>by Tobias Appel</i> “The social integration of high-achieving students: Do gender stereotypes apply?” <i>by Claudia Neuendorf</i>	<i>St. Georg</i>
10.00-11.00	Poster Fair with Coffee <i>Cf. page 14</i>	<i>Foyer</i>
11.00-12.30	“Learning and teaching with technology: A 20-years commute between the lab and real-world education” <i>Keynote by Katharina Scheiter (Leibniz-Institut für Wissensmedien)</i> <i>Cf. page 8</i>	<i>St. Georg</i>
12.30-13.00	Lunch	<i>Dining Area</i>
13.30	Bus Departure Untermarchtal to Tübingen	<i>Meeting Point: Reception</i>
16.00	Arrival in Tübingen	<i>Europastrasse / Fernbussteig</i>



Organisational Notes

LEAD Retreat Venue

Bildungsforum Kloster Untermarchtal
Margarita-Linder-Straße 8, 89617 Untermarchtal
+49 7393 30-250, bildungsforum@untermarchtal.de

LEAD Info Point

During the retreat, our **LEAD Info Point** placed in the foyer will be open to answer any question and make your stay as comfortable as possible.

Check-In

Please check-in at the reception in the foyer. Earliest **check-in** time for the bedrooms is **2.30 pm** and **check-out** time is before **10.00 am**.

3G Certificate

Please have your **3G certificate** (vaccinated, recovered or tested, test certificate needs to be no older than 24 hours) ready when arriving at the venue. We are obligated to check your certificate at arrival. For everyone travelling by bus, we will check your certificates before you enter the bus (on Wednesday at 7.30 am).

Hygiene Rules

Please wear a **FFP2 mask** at all-time indoors except during meals or coffee breaks. Please also make use of the disinfection dispensers, which are available in the entire building. Self-tests as well as masks will be available free of charge at the **LEAD Info Point**.

Seating Order

To provide an opportunity for you to get more familiar with all LEAD members, there will be a randomized seating order for the **dinner on Wednesday** and the **lunch on Thursday**. Please look for the place card with your name and enjoy an inspiring meal with your colleagues.

Beverages

Mineral water and juice will be provided throughout the retreat. Coffee, tea and snacks will be provided during coffee breaks. We kindly ask you to pay for all other drinks (especially during evening sessions) at the reception before you leave.

Poster Fairs

For the poster fair, PhD candidates as well as Postdocs prepare posters and present their projects in 2-5 minutes to small groups of other LEAD members and guests. Everyone is invited to ask questions or make comments.

Keynote Speech

Distinguished national and international guests are invited to give a talk about keynote topics. Everyone attending the retreat and especially our PhD candidates, should make use of the opportunity to interact with the guests during coffee breaks and social activities.

Travel Reimbursement

We kindly ask for your understanding that LEAD cannot pay a daily allowance. Please see the [LEAD Information Memo: LEAD Business Travel Authorization & Reimbursement](#) for specific procedures regarding travel authorization and reimbursement.



New Members

Wednesday, 11.15 am – 11.00 am (St. Georg)

	Name	Status
1	Amedeo Viccari	PhD Candidate
2	Anne Eppinger Ruiz de Zarate	PhD Candidate
3	Claudia Neuendorf	Postdoc
4	Colin Cramer	Professor
5	Elizabeth Bear	PhD Candidate
6	Judith Havemann	PhD Candidate
7	Kimera-Johanna Schorndorfer	PhD Candidate
8	Lisa Bäumle	Postdoc
9	Mehmet Sari	Postdoc
10	Sarah Ferber	PhD Candidate
11	Sebastian Röhl	Postdoc
12	Vlasta Sikimic	Postdoc
13	Xinru Yao	PhD Candidate
14	Yunfeng He	Postdoc



Keynote Speakers

Wednesday, 11.15 am – 12.15 pm (St. Georg)

“AI and ML and data! Oh my! Supporting teachers’ and learners’ work by considering the human sides of data science”

by Joshua Rosenberg (University of Tennessee)



Joshua M. Rosenberg (PhD, Michigan State University) is an assistant professor of STEM education and faculty fellow at the Center for Enhancing Education in Mathematics and Sciences at the University of Tennessee, Knoxville. His research focuses on how learners think of and with data, particularly in science education settings. Joshua Rosenberg tries to understand how practices such as creating, representing, and modeling data create new opportunities for learning how to use data to pose and answer questions about scientific phenomena. As a part of this work, Joshua makes use of quantitative methods, such as multi-level models for analyzing data collected through the experience sampling method, and newer approaches, such as social network analysis to analyze teachers’ conversations on social media. Joshua has been awarded more than four million dollars in federal grants as principal investigator (PI) or co-PI and has published in outlets such as *Journal of Research in Science Teaching*, *Computers & Education*, and *Teaching and Teacher Education*.

Wednesday, 2.00 – 3.00 pm (St. Georg)

“Designing digital media to promote learning – a holistic approach”

by Sascha Schneider (University of Zurich)



Sascha Schneider’s research is focused on how to design learning media to enhance learning. He conducts experiments and meta-analytically analyzes data on cognitive, emotional, motivational, social and meta-cognitive processes during learning with digital media such as text-and-picture-based websites, animations, videos, but also interactive media such as educational video games and augmented and virtual reality environments. He graduated in education science and English as a Bachelor and in educational technology and further education as a Master. His dissertation examined the effects of decorative pictures on learning with media. His habilitation focused on the effects of choice as an autonomy-enhancer and motivation-facilitator in digital learning environments. Sascha Schneider is now a professor of educational technology at the University of Zurich.



Keynote Speakers

Thursday, 9.00 – 10.15 am (St. Georg)

“The Centre for Early Mathematical Learning – Structure and research”
by *Korbinian Möller (Loughbourogh University)*



Korbinian Möller's research interests focus on the cognitive and neuronal underpinnings of numerical and mathematical skills. He studied psychology at the RWTH Aachen University (Diplom 2006) and the University of Dundee in Scotland (M.Sc. 2006). Subsequently, Korbinian pursued his PhD at the Paris-Lodron-University in Salzburg, Austria (until 2008) and the Eberhard-Karls-University in Tübingen, Germany, (PhD in 2010). From 2012 to 2020, he was professor for applied learning and knowledge psychology at the University of Tübingen, seconded to the Leibniz-Institut für Wissensmedien, Tübingen to head a junior research group. Since April 2020, Korbinian is a professor of mathematical cognition at the Centre of Mathematical Cognition of Loughbourogh University (United Kingdom).

Thursday, 5.00 – 6.00 pm (St. Georg)

“Using eye-tracking as a research and pedagogical tool”
by *Andrea Révész (University College London)*



Andrea Révész is a professor of second language acquisition at the UCL Institute of Education, University College London. Her main research interests lie at the interfaces of second language acquisition, instruction and assessment, with particular emphases on the roles of task, input, interaction, and individual differences in SLA. Currently, she is also working on projects investigating the cognitive processes underlying second language performance. She is co-winner of the 2017 TBLT Best Research Article Award and co-recipient of the 2018 TESOL Award for Distinguished Research. Currently, she serves as associate editor of the journal *Studies in Second Language Acquisition* and is Vice-President of the International Association for Task-based Language Teaching (TBLT).



Keynote Speakers

Friday, 11.00 am – 12.30 pm (St. Georg)

“Learning and teaching with technology: A 20-years commute between the lab and real-world education”

by Katharina Scheiter (Leibniz-Institut für Wissensmedien)



Since 2009, Katharina Scheiter is head of the Multiple Representations Lab at the Leibniz-Institut für Wissensmedien (IWM) and professor for Empirical Research on Learning and Instruction at the University of Tübingen. Her research focuses on learning and teaching with technology, including the design of digital artifacts and ways of integrating them into classroom teaching. Katharina Scheiter was co-applicant of the DFG Research Group Analysis and Facilitation of Effective Learning and Teaching Processes (“Analyse und Förderung effektiver Lehr-Lernprozesse”, FOR738) and the LEAD Graduate School & Research Network (Learning, Educational Achievement, and Life Course Development; GSC 1028), financed by the German Excellence Initiative, as well as one of LEAD’s co-directors. Moreover, she serves on the board of the Tübingen School of Education, where she is also responsible for the Tübingen Digital Classroom Laboratory (TüDiLab) located at the IWM. In 2009 she was honored with the Erik de Corte Award for Young and Promising Scholars in the Science of Learning and Instruction of the European Association for Learning and Instruction (EARLI). From May 1st 2022, she will serve as a professor of Digital Education at the University of Potsdam founded by the Hasso Plattner Foundation.

Poster Fair

Wednesday, 3.00 - 4.15 pm (Foyer)

	Name	Poster	Title
1	Lilly Buhr	PhD Candidate Poster	The Association of ADHD Symptoms and Sleep in the Daily Life of School Children
2	Katharina Fleig	PhD Candidate Poster	NLP-based learner assessment for feedback generation
3	Babette Bühler	PhD Candidate Poster	Video-based mind-wandering detection during reading
4	Philipp Stark	PhD Candidate Poster	Validation of a Task-induced Pupillary Baseline Correction for Field Trial VR Experiments
5	Alexander Jung	PhD Candidate Poster	Reciprocal Effects in the Classroom: Project Plan for a Coordinated Analysis
6	Emily Corwin-Renner	PhD Candidate Poster	Teaching enjoyment-based motivation regulation strategies to high school students: A diary study
7	Salome Wörner	PhD Candidate Poster	Combining real and virtual Experiments in Science Education
8	Anna Bareis	PhD Candidate Poster	Testing the CONIC model in an experimental setting
9	Pia Rox	PhD Candidate Poster	<i>Jugend präsentiert</i> Study: Investigation of Presentation Feedback and Its Effectiveness
10	Fabian Stöhr	PhD Candidate Poster	Evaluating and Enhancing Social Scientific Word Embeddings using Domain Knowledge
11	Luisa Scherzinger	PhD Candidate Poster	Professional Development and Professionalism of Bilingual Education Teachers
12	Ann-Kathrin Jaggy & Katerina Tsarava	Postdoc / IMRF Poster	Update on: The missing link between Creativity and Computational Thinking (CT)
13	Elizabeth Bear (Xiaobin Chen, Stephen Bodnar)	IMRF Poster	Commercial ASRs in ICALL: Reevaluating the state of the art to support spoken language tasks
14	Lisa Minich	Intern Poster	The Development of a Teacher Dashboard for the FeedBook System



PhD Talk

Wednesday, 3.00 pm – 4.15 pm (G104)

“The Interplay of Scientific Reasoning and Self-Regulation in Inquiry Learning: A Temporal Process-Oriented Analysis“ by *Yoana Omarchevska*



The improvement of scientific reasoning and argumentation has become a central aim of science education, which resulted in an increased implementation of active learner-centered pedagogies like inquiry learning (KMK, 2020; NASEM, 2021). Since inquiry learning relies on students' active engagement and participation (Freeman et al., 2014), it is important to consider factors related to its effective implementation. In this talk, I discuss three studies conducted as part of my dissertation, which investigated 1) the combined influence of students' cognitive and motivational characteristics on their experimentation skills and conceptual understanding, 2) the interplay of self-regulation and scientific reasoning processes and argumentation quality, and 3) the effectiveness of integrated scaffolding of self-regulation and scientific reasoning for students' learning processes and learning outcomes in the context of inquiry learning.

An additional aspect of the talk relates to addressing the three conceptual aims using a range of novel and advanced methods. Each of the three studies employed a novel methodological approach to provide a fine-grained analysis of students' learning processes. First, in contrast to the classic variable-oriented perspective often used in educational research, a person-oriented approach was applied to understand the combined influence of cognitive and motivational variables on students' experimentation skills and conceptual understanding. Second, epistemic network analysis was used to model the temporal co-occurrence of self-regulation and scientific reasoning processes in relation to argumentation quality. Third, epistemic network analysis was combined with process mining to comprehensively investigate specific sequences and co-occurrences between scientific reasoning and self-regulation processes. Process data were used in all three studies to gain an in-depth understanding of students' scientific reasoning and self-regulation in relation to learning outcomes during inquiry learning. Therefore, each study in this dissertation went beyond focusing only on learning outcomes and instead focuses on providing an in-depth process-oriented perspective on the interplay between scientific reasoning, self-regulation, and argumentation.

Poster Fair

Thursday, 3.45 - 4.45 pm (Foyer)

	Name	Poster	Title
1	Armin Fabian	PhD Candidate Poster	Cleaning up the mess. A systematic review of the diversity of TPACK conceptualizations
2	Wy Ming Lin	PhD Candidate Poster/IMRF Poster	Emotions in Goal Revision: Project Update
3	Salome Wagner	PhD Candidate Poster	Effects of prior instruction and elaborated feedback on students' learning
4	Aki Schumacher	PhD Candidate Poster	Reaping the benefits of intellectual curiosity and interest: Effects on information seeking and knowledge attainment
5	Lucas Stark	PhD Candidate Poster	Efficacy of an Intervention to Promote Aspects of Statistical Literacy in Talented Elementary Students
6	Sarah Ferber	PhD Candidate Poster	Numeracy, Nutrition and Schooling Efficiency in Sub-Saharan Africa – 1950 to 2000
7	Benedikt Gottschlich	PhD Candidate Poster	Do future physics teachers learn in university what they need in high school?
8	Hannah Deininger	PhD Candidate Poster	How to Make Use of Data Generated Within an Intelligent Tutoring System to Help Students Improve Their Learning Outcome
9	Vivian Gunser	PhD Candidate Poster	Same, same but different? Reader's differentiation between human and AI poetry
10	Fitore Morina	PhD Candidate Poster	Large Reforms in High School Biology Labs: Examining Teachers' Classroom Practice and Related Challenges
11	Zarah Weiss	PhD Candidate Poster	Sentence readability assessment for German education contexts
12	Hayley Jach	Postdoc Poster	IMRF project planning: Keeping creative passions alive: Sustaining interest, effort, and self-regulated learning in art, music, and theatre education
13	Manuel Ninaus	Postdoc Poster	Evaluating the effects of game elements on learning: A shift in priorities?
14	Felina Leng	Intern Poster	INFER – An Intelligent Feedback System for Observing Instructional Videos

Postdoc Talks

Thursday, 10.45 am - 12.00 pm (St. Georg)

	Name	Title
1	Sebastian Röhl	A meta-analysis on the effectiveness of student feedback on different aspects of teaching quality
2	Xiaobin Chen	Talking to an intelligent agent for learning a foreign language: A system demo
3	Lisa Bäumke	Does motivational regulation prevent academic procrastination? Insights from Two Diary Studies

Special Interest Groups

Thursday, 2.15 – 3.15 pm

	Name	Title	Place
1	Xiaobin Chen	Artificial Intelligence in Education (AIED)	St. Georg
2	Michiko Sakaki	Education and gender difference in developing countries	Meditation Room
3	Katarina Weßling	Taking (the) LEAD into Vocational Education and Training (VET) Research	G104
4	Korbinian Möller	Early Mathematical Learning	I401
5	Vlasta Sikimic	Intellectual Virtues: Philosophy and Psychology	I402
6	Ines Pieronczyk	FeedBook – Log file data and its interpretation	Fernsehraum
7	Thomas Dresler	Mental Health	Foyer



Postdoc Talks

Friday, 9.00 am - 10.00 am (St. Georg)

	Name	Title
1	Vanessa Kurdi	Project protocol overview: Co-designing and testing the feasibility of an intervention to promote empathy use in primary school teachers
2	Tobias Appel	Predicting decision-making during an intelligence test via semantic scanpath comparisons
3	Claudia Neuendorf	The social integration of high-achieving students: Do gender stereotypes apply?

Poster Fair

Friday, 10.00 – 11.00 am (Foyer)

	Name	Poster	Title
1	Patrizia Bieber	PhD Candidate Poster	Parental Attitudes and Learning an Instrument at Primary School Age
2	Fabienne Kremer	PhD Candidate Poster	Efficacy of an Intervention to Promote Spatial Thinking in Talented Elementary Students
3	Franziska Tschönhens	PhD Candidate Poster	Promoting Teachers' Professional Competences for Technology Integration – Dissertation Project
4	Tosca Panetta	PhD Candidate Poster	Achieving High-Quality Observation Ratings of Teaching Quality – Investigation of a Teacher Training
5	Julia Maria Lange	PhD Candidate Poster	Efficacy of an Intervention to Promote Scientific Reasoning in Talented and Gifted Elementary School Students
6	Ines Pieronczyk	PhD Candidate Poster	Predictors of Student Effort in a Digital Learning Environment
7	Simón Ruiz & Patrick Rebuschat	Postdoc Poster	A systematic methodological review of offline Input Processing research
8	Hanna Weiers	Postdoc Poster	Learning the meaning of novel numerical symbols
9	Georgios Thoma	Postdoc Poster	Digging for Fraction Equivalence
10	Leonie Jacob	IMRF Poster	Does academic self-concept determine the effectiveness of learning by explaining?
11	Marina Pumpow	Postdoc / IMRF Poster	How to Identify Risk Factors for Student Dropout in Higher Education using Large-Scale Administrative Data Sets
12	Ines Loll	Intern Poster	The Intelligent Tutoring System “FeedBook” - An Effectiveness Study. Investigation of the Moderating Influence of Teacher Feedback
13	Sonja Gelzenleuchter	Intern Poster	Working Memory Capacity and the FeedBook