2024 Conference Presenters' Program

Wednesday 21.08.2024

08:30 - 9:15

Registration, Croissants & more

9:15 - 9:30

Opening ceremony

9:30 - 10:30

JURE Keynote

Tino Endres

10:30 - 11:00

Coffee break

11:00 - 12:00 **Session A**

No or not perfect data - Part I

ChatGPT and Literary Writing: Transdisciplinary Instructional Design Approach
Jennifer Mueller et al.

Technology-supported Cooperative Learning: a way to boost learning and socioemotional skills
Benedetta Zagni et al.

Testing Constructive Retrieval in the Classroom – Findings From Two Field Experiments
Dwayne Lieck et al.

What works best? – Supporting pre-service teachers' critical reflexive AI Literacy
Jana Kemmler et al.

Single papers - Cognitive skills & Processes I

From Passive to Metacognitive: The Effect of Mode of Engagement on Chemistry Learning Outcomes
Yoana Omarchevska et al.

Online Learning on Clearinghouse Websites for Evidence-based Education: A Matter of Experience
Marcel Capparozza et al.

Remembering knowledge levels of different learning partners
Oktay Ülker et al.

Visual pocessing of computer-based feedback: Is visual attention predictive for learning?
Thérése Eder et al.

Single papers - Competencies

Academic Self-Concept Determines the Effectiveness of Learning by Explaining
Leonie Sibley et al.

Preparing preservice teachers to teach with digital technologies: future perspectives for SDQ+
Jo Tondeur et al.

Promoting the quality of feedback of prospective teachers in computing education
Thomas Schmalfeldt

Teachers' self-reported and actual TPACK – New results on their relation and gender differences
Timo Kosiol et al.

12:00 - 13:00

Lunch

13:00 - 14:20/ 14:30 **Session B**

Symposium I - Advancing Adaptivity of Support in Digital Learning Environments: Focusing on the Adaptivity Design

Organizers: Michael Nickl, Daniel Sommerhoff

Identifying Starting Points for Designing Adaptive Guidance in Productive and Vicarious Failure
Charleen Brand et al.

Probability Levels in Adaptive Learning Technologies: What Works for Whom?
C.A.N. Knoop-van Campen et al.

Adaptive Feedback from AI in Simulations for Teacher Education: A Replication in the Field
Elisabeth Bauer et al.

Adaptive Real-Time Scaffolding for Pre-Service Teachers in a Video-Based Simulation
Michael Nickl et al.

Discussant: Manuel Ninaus

Symposium II - Synthesizing Instructional Design Principles and Teacher Education

Organizer: Jasmin Lilian Bauersfeld

Preservice teachers' analysis of video: Investigating professional vision and multimedia design
Meg Farrell et al.

How Can the Acquisition of Complex Teaching Skills be Optimally Fostered?
Hadmut Hipp et al.

The effect of expert feedback on pre-service teachers' peer feedback quality and beliefs
Christopher Neil Prilop et al.

Before or After? Sequencing Concepts and Video-based Analyses for Different Teacher Education Phases
Jasmin Lilian Bauersfeld

Discussant: Fritz C. Staub

Single papers - Higher Education

Dashboards do not support the teaching styles of most instructors: How do we move forward?
Zhenyu Cai et al.

Delving into Data on Students' Instructional Knowledge: A Review of the Empirical Research
Morane Stevens et al.

Instructional Design of Time-Management Interventions to Improve Performance in Higher Education
Sebastian Trentepohl et al.

Learners' perceived relatedness in hybrid collaboration compared to F2F or remote settings
Sabine Schermeier et al.

Learning Analytics for Exercise Sessions: Addressing the Tensions of Cognitive & Metacognitive Goals
Zhenyu Cai et al.

14:35 - 15:35 Session C

ICT Demo

AutoTutor for adult reading comprehension (ARC) 2.0: Present and imagined designs
John Sabatini et al.

Graveler - Experiencing Knowledge through Play
Kevin Körner et al.

Posters - Group A

A1 A psychological platform for GenAI and human co-piloting in education
Luke Fryer et al.

A2 Chatbots in Education: A Systematic Review of the Underlying Technology and their Grounding Theory
Tim Debets et al.

A3 Digital media education approaches to GenAI in schools: a latent profile analysis
Tessa Consoli et al.

A4 Empowering teachers to co-create learning experiences with AI
Thomas Frøsig et al.

A5 How chatbots support student motivation in learning: A scoping review
Weijiao Huang et al.

A6 Human-Centered AIED - Ethical Agents in Education
Birk Thierfelder et al.

A7 Integrating student stakeholders in the design of a conversational agent for EFL in German schools
Elizabeth Bear et al.

A8 Predictors and Consequences of Learning Behavior: Personality, Motivation, and Learning Outcomes
Hannah Deininger et al.

A9 Will GenAI Make the World a Better Place? Let's Explore Students' Expectations
Chiara Antonietti et al.

Posters - Group B

B1 Does Segmenting Work? Enhancing Teachers' Professional Vision
Franziska Tschönhens et al.

B2 Does video playback speed affect learning in different age groups?
Martin Merkt et al.

B3 Exploration of gender differences in engagement and learning in a collaborative climate change game
Chi-Tsun Wang et al.

B4 Immersive VR Learning Environments: Coherence Formation and Effects of Environmental Details
Christian Hartmann et al.

B5 Instructional Effectiveness of Comics in Science Education. A Meta-Analysis
Tom Jungbluth et al.

B6 Modality Principle in Immersive Virtual Reality: An Eye-tracking Study
Noé Monsaingeon et al.

B7 The effect of different backgrounds on information recall when using 360° videos to assess learning
Alberto A.P. Cattaneo et al.

B8 When seeing is not helping: Signaling germ contamination hinders performance and immersion in iVR
Juliette Desiron et al.

Posters - Group C

C1 Addressing teachers' needs: Design-based research to sustainably implement an ITS
Julia Schmidt-Peterson et al.

C2 Can using an ITS accompanied by teacher training foster teachers' motivation?
Katharina Wendebourg et al.

C3 Does Student Agency Effect Learning Behavior and Success in a CBLE with Automated Formative Feedback
Vroni Barkela et al.

C4 Does the Gamification of an Intelligent Tutoring System for 7th Graders Affect Their Motivation?
Cora Parrisius et al.

C5 Exploring Students' Perceptions of Engaging in Anonymous Discussions in UK University Classrooms
Peiyu Wang et al.

C6 Exploring the effect of content placement when learning in augmented reality in nature
Jule Krüger et al.

C7 Exploring Uncertainty Management in Engineering Design Teams in a CAD-enhanced Learning Environment
Hannie Gijlers et al.

C8 Relationship between the Usage of ITS and Learning Gains in Mathematics in Secondary Education
Julius Schaaf et al.

15:35 - 16:05

Coffee break

16:05 - 17:05 **Session D**

Single papers - Artificial Intelligence

Co-designing a rapid review: What do teachers want to know about AI use in K-12 classrooms?
Meg Farrell et al.

Exploring GenAI Use Patterns in Swiss Upper Secondary Schools: Insights from Latent Profile Analysis
Miria Hartmann et al.

Preservice teachers' perceptions of and readiness for teaching and learning with AI
Eliana Brianza et al.

The role of teaching and teachable GPT-based agents in computer-supported collaborative learning
Albulene Grajcevci et al.

Single papers - Immersive Technologies I

Becoming a tree: Immersive VR induces compassion for nature
Pia Spangenberger et al.

Leveraging the Potential of Immersive Virtual Reality Environments for Creativity Development
Enikő Orsolya Bereczki et al.

Look at me! Can a pedagogical agent facilitate orientation and support learning in VR?
Daniela Decker et al.

Virtually Calling: How Online Prompting Can Make or Break the Immersive Learning Experience
Valentin Riemer et al.

Single papers - Video-based learning

A Talking Head as a Retrieval Cue? Instructor Presence in the Learning and Testing Phase
Christina Sondermann et al.

Investigating the effects of the instructor's accent on non-native learners in multimedia learning
Felicia Meusel et al.

Learning from technical tutorials: Retrospective note prompts foster learning processes and outcomes
Simon A. Schriek et al.

Should the instructor be shown in instructional videos in higher education? Three field experiments
Steffi Heidig et al.

17:10 - 18:10 **Session E**

Single papers - Cognitive skills & Processes II

A mixed-methods study on learner-IVR interactivity, agency, cognitive load and learning outcomes
Anu Lehikko et al.

Exploring the visual aesthetic principle in instructional design

Diana Pak et al.

Generative Learning by Learning Journals. Mechanisms Underlying the Medium Effect

Florian Luft et al.

The interplay of narrative and feedback in educational AR games

Julia Flottmann et al.

Single papers - Emotion, Affect & Self-regulation

Capturing Students' Emotional Responses during Scientific Inquiry with a Sensor Wristband

Heide Sasse et al.

Feedback on Self-Assessment Accuracy: Challenge or Threat?

Tamara Van Gog et al.

Separating prior knowledge from acquired knowledge in PISA - Learning in the Digital World

Leonard Tetzlaff et al.

Shifting Relations: Time-Dependent Effects of Emotion Regulation in Educational Gaming

Valentin Riemer et al.

Single papers - Educational Technologies

Benefits and Pitfalls of Integrating Mindfulness into Digital Learning Games

Enikő Orsolya Bereczki et al.

Effects of Using Digital Technologies in Learning

Margus Pedaste et al.

How can teachers be supported in interpreting computer-based formative assessment results?

Sarah Bez et al.

Transactional distance as seen by high school students enrolled in distance education

Alexandre Lanoix et al.

18:20 - 22:00

Opening reception

Earli SIG 6&7

2024 Conference Presenters' Program

Thursday 22.08.2024

9:00 - 10:00

Keynote

Martina Rau

10:00 - 10:30

Coffee break

10:30 - 11:50/ 12:00 **Session F**

Symposium III - Innovative methodologies to capture dynamics of collaborative learning in digital environments

Organizer: Chia-Yu Wang

Impact of cultural diversity in collaborative clinical reasoning argumentation in synchronous CSCL

Hannie Gijlers et al.

When talkative wrongs impede the rights: Scaffolding novelty and reference for transactive discourse

Nóra Éva Spengler et al.

Analyzing learner types and outcomes for learning dynamics in a collaborative climate change game

Chia-Yu Wang et al.

Discussant: Nikol Rummel

Symposium IV - The elements of emotional design under the microscope of multimedia learning

Organizers: Nadine Scheller, Sascha Schneider

The Intertwining of Information Relevance and Colorfulness in Multimedia Learning

Sascha Schneider et al.

Make it human: Enhance learning and motivation through anthropomorphism

Nadine Scheller et al.

Benefits and Moderators of Enthusiastic Pedagogical Agents in Digital Learning Environments

Maik Beege

Look Like Me, Act Like Me? Key Requirements of Model Observer Similarity in Emotional Design

Charlotte Vössing et al.

Discussant: Juliette Desiron

Single papers - Higher Education & Self-regulation

Interleaved practice in foreign language grammar learning: A field study

Veronica Yan

Investigating the Screen Inferiority Effect in a Naturalistic and Ecologically Valid Setting

Emely Hoch et al.

Learning with interactive, dynamic visualizations - effects of technology and with technology

Josef Guggemos et al.

Promoting self-regulation during inquiry learning in science education

Tessa Eysink et al.

The Use of AI-Generated Learning Journals to Support Learners' Use of Effective Learning Strategies

Nina Udvardi-Lakos et al.

12:00 - 13:00

(Mentoring) Lunch

13:00 - 14:20/ 14:30 **Session G**

Symposium V - Instructional Principles for Teaching and Learning with Immersive Virtual Reality Technology

Organizer: Miriam Mulders

A Value Added Study: Drawing and Explaining as Generative Learning Strategies when Learning with VR

Miriam Mulders et al.

Re-experiencing: a novel generative learning strategy in Extended Reality

Valdemar Stenberdt et al.

Collaborative Learning in VR: Impact of Signaling on Learning Outcomes and Cognitive Load

Patrick Albus et al.

Combining instructional design principles enhances learning with immersive virtual reality

Josef Buchner

Discussant: Christian Hartmann

Symposium VI - Customizable Classrooms: Adaptive Learning Environments in Schools

Organizer: Katharina M. Bach

Adaptivity in schools: A review of context, implementation, learner characteristics, and goals
Katharina M. Bach et al.

Individualizing learning from instructional videos with adaptive practice questions
Shelbi Kuhlmann et al.

Primary school teachers' skills to perceive, interpret and make decisions based on dashboards
Stefanie Vanbecelaere et al.

Adaptive constructive support in dyadic teacher-student interactions
Britta Wenzel

Discussant: Leonard Tetzlaff

Single papers - Instructional Design & Text Graphics Comprehension

Fostering Deep Understanding of Science Concepts in an Online Learning Environment
Man Su et al.

Influence of erroneous examples on learning gain and cognitive load in chemistry
Sonja Dieterich et al.

Sequence Analysis in E-Book Learning Patterns: Insights for teachers, students, developers
Yaroslav Opanasenko et al.

The influence of hand proximity on text comprehension: the role of individual differences.
Romy Brömme et al.

The role of study sequence and self-explanation for primary students' conditional strategy knowledge
Nike Scheitz et al.

14:35 - 15:35 Session H

ICT Demo

DOCommunication: A digital game-based learning tool to foster doctor-patient communication skills
Marco Rüth et al.

Enhancing STEM Education with an AI-powered System that promotes Interactive Learning and Engagement
Marei Beukman et al.

The ClassVRoom App for Teacher Education
Eliana Brianza et al.

Posters - Group D

D1 Domain Specific Challenges in Developing an e-Learning Tool for Organic Chemistry
Katrin Schuessler et al.

D2 How are students' pre-tutorial learning behaviors associated with Student Engagement in Tutorials?
Linyuan Wang et al.

D3 Is two better than one? Effects of sequencing a retrieval task and a learning protocol on learning
Alina Timmermann et al.

D4 Phoneme-Grapheme Recognition Testing and Gamification in Primary school classrooms
Lishi Liang et al.

D5 Role of Teacher Ownership in Technology Integration in K-12 Education System.
Bikash Chetry et al.

D6 Training Self-Regulation Skills: Effects on Self-Efficacy, Challenge/Threat, and Learning Outcomes
Jane Pieplenbosch et al.

D7 Unlocking the Power of Immersive Learning: The FAIRI Instructional Design Framework for IVR
Gilles Obourdin et al.

D8 Using badges and leaderboards to support secondary school students' English language learning
Chunqi Li et al.

Posters - Group E

E1 A review of large language model (LLM) chatbot-enhanced instructional activities in higher education
Ismail Celik et al.

E2 An fNIRS study on reading sentences in hand proximity: The influence of cognitive flexibility
Birgit Brucker et al.

E3 Co-Designing AI-supported Instructional Approach to Enhance Science Learning
Man Su et al.

E4 Effectiveness of 4Cs Skills Transfer from Sandbox Gaming Environment to Near and Far Contexts
Yuchun Zhong et al.

E5 Effects of Generative Artificial Intelligence on Instructional Design Outcomes
Kristina Krushinskaia et al.

E6 Investigating cognitive, affective, and motivational effects of game elements for learning
Stefan Huber et al.

E7 Supporting University Students' Use of Retrieval Practice during Their Self-Regulated Learning
Louise David et al.

E8 Testing the Effectiveness of an Individualized Assignment of Motivational Interventions
Liene Brandhuber et al.

Posters - Group F

F1 Associations of digital feedback, school achievements and absences
Sanna Oinas et al.

F2 Comparing Online and In-Person Grades with the Same Instruction: A Natural Experiment in COVID-19
Caitlin Kirby et al.

F3 Detecting distributed practice in trace data: A comparison of different operationalizations
Lea Nobbe et al.

F4 Embracing the Challenge: Predicting Self-Testing in Non-Formal Online Courses Using Machine Learning
Maria Klose et al.

F5 Learning with instructional videos: Prompting is enough, really?
Anke Wischgoll et al.

F6 Pre-service teachers' characteristics' influence on pupils' outcomes in digitization-related lessons
Nicoletta Bürger et al.

F7 Teacher Orchestration (Load) in Synchronous Hybrid Education: Towards a Conceptual Framework
Tine Keulemans et al.

15:35 - 16:05

Coffee break

16:05 - 16:50

SIG 6 & 7 Members meeting
All members and interested participants welcome !

16:55 - 17:55

Invited JURE symposium

How to Exploit the Potential of Desirable Difficulties in Education
Roman Abel
Tanja Habermeyer
Sterre Ruitenburg
Stephany Duany Rea
Discussant: Alexander Renkl

18:30 - 19:30

River boat tour (Stocherkahn) - *Registration only*

19:00 (Official start 19:40) **- ...**

Conference dinner

Neckawa (Freistil)

Earli SIG 6&7

2024 Conference Presenters' Program

Friday 23.08.2024

9:00 - 10:00

Invited symposium

Learning with Technologies in the Classroom

Guido Makransky

Josef Buchner

Nikol Rummel

Discussant: Andreas Lachner

10:00 - 10:30

Coffee break

10:30 - 11:50/ 12:00 **Session I**

Symposium VII - Teaching STEM with XR

Organizer: Zoya Kozlova

Exploring the Role of Conceptual Knowledge and Representational Competence in Augmented Reality

Zoya Kozlova et al.

Augmented Reality in Electromagnetism: Which Representations Best Support Students' Understanding?

Bermann Steinmacher

Learning with Annotations and Quizzes in VR: How Beneficial Is It, and What Mechanisms Play a Role?

Maximilian C. Fink et al.

Embodied Learning in Virtual Reality: A Comparative Study on Interaction Modalities

Patrick Albus et al.

Discussant: Guido Makransky

Symposium VIII - How to Optimize the Benefits of Generative Learning Tasks

Organizer: Andreas Lachner

Combining Explaining and Drawing Fosters Inquiry Learning in Physics Classes

Heike Russ et al.

A preliminary conceptual framework of learning by teaching

Jesús Ribosa et al.

Enhancing Lasting Learning by Generative Drawing Through Integration of Retrieval Practice

Seokyoung Kim et al.

Combining Generative Learning and Retrieval Practice: Investigating the Role of Learning Task Delay

Niklas Obergassel et al.

Discussant: Vincent Hoogerheide

Single papers - Multimedia Learning

AIt: Intention-preserving Automatic Alt-text Generation for Educational Content

Julia Chatain et al.

Effects of collaborative learning from dynamic multimedia – A systematic review

Laura Schultze et al.

Stepwise Presentation of Worked Examples to Foster Retrieval Practice and Improve Learning

Margot van Wermeskerken et al.

Supporting EAL learners with video subtitles and transcripts

Alice Shihua Yu et al.

The Presence of Learning Partners and Choice as Motivation Support Features in Multimedia Learning

Ömer Tuğşad Akgül et al.

12:00 - 13:00

Lunch

13:00 - 14:00 **Session J**

No or not perfect data - Part II

A questionnaire to assess teachers' knowledge about multimedia principles in instructional videos

Sandra La Torre et al.

Comparing Performance-based versus Cognitive Load-based Assessment in Adaptive Learning Systems

Luisa Wellert et al.

Embodied Learning and Mixed Reality in Physics Experimentation

Ipek Paksoy et al.

Generation and Evaluation of Synthetic Text Data for the Students' Conceptions Identification Task

Judith Stanja et al.

Single papers - Immersive Technologies II

Designing for Adaptivity: Systematic Design of Adaptive Learning Tasks for Immersive Virtual Reality

Gilles Obourdin et al.

How do learners move when grasping derivatives?

Julia Chatain et al.

Learning in Immersive Virtual Reality: Relationship between Cognitive Load and Learning Gains

Dorian Thomsen et al.

Presence is connected to cognitive activation: The instructional quality of virtual reality

Alexander Georg Büssing et al.

Single papers - Educational Technologies in Sec II

Evaluation of the Educational Technology Products by Stakeholders: Towards a Comprehensive Framework

Sabrina Shajeen Alam et al.

Inquiry learning in science education with real, virtual and VR experiments

Salome Flegr et al.

Supporting mastery learning by adapting exercise sequences to working memory and learner performance

Martí Quixal et al.

Teachers' digital technology integration practices and their predictors

Doris Kristina Raave et al.

14:00 - 15:20/ 15:30 Session K

Symposium IX - Problem-Solving before Instruction: Investigating Mechanisms and new Application Areas

Organizer: Inga Glogger-Frey

Prior Knowledge Activation as Mechanism in PS-I: The Role of Goal Formulations

Charleen Brand et al.

Exploring Cognitive Mechanisms in PS-I: Problem Solving Versus Self-Explaining Problem Solutions

Katharina Ockl et al.

Applying PS-I in the Context of Addressing People's Knowledge Gaps about Email Threats

Nikol Rummel et al.

Applying PS-I in the Context of Promoting Multivariable Causality Reasoning via Simulations

Janan Saba

Discussant: Tamara Van Gog

Symposium X - Interleaved practice and meaningful learning: Its variety and application across domains

Organizers: Roman Abel, Erdem Onan

Tailoring interleaved practice: Adaptive interleaving in visual category learning

Lea Nemeth et al.

Improving diagnostic accuracy of lung auscultation through interleaved practice

Erdem Onan et al.

The Interleaving Effect for Language Learning Across Diverse Grammatical Tenses and Languages

Steven Pan et al.

Fostering Source Evaluation Skills by Mixed Presentation of (Un)Trustworthy Social Media Sources

Roman Abel

Discussant: Veronica Yan

Single papers - Pre- and In-Service Teachers x Technologies

Conceptual change among pre-service teachers - Unveiling learning styles using podcasts and texts

Julia Götzfried et al.

More Than a Feeling? – Insights Into how Teachers Select Explainer Videos

Felicitas Licht et al.

Opportunities and Hurdles of Video Usage in Flipped Mathematical Modelling Seminars

Mustafa Cevikbas et al.

Willed and skilled to teach Mathematics with technology? Relating teacher profiles to technology use

Timo Kosiol et al.

15:35 - 15:45

Short break

15:45 - 17:00

Closing ceremony & Awards