

Dr. Michael Sailer

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Curriculum Vitae

Personal Data

Name	Dr. Michael Sailer
Year of birth	1985
ORCID	https://orcid.org/0000-0001-6831-5429
ReserachGate	https://www.researchgate.net/profile/Michael_Sailer2
Google Scholar	https://scholar.google.de/citations?user=Dy61t1gAAAAJ&hl=de&oi=sra
Scopus	https://www.scopus.com/authid/detail.uri?authorId=55903875700
Twitter	https://twitter.com/mea_sail

Research Interests

- gamification and gamified learning
- simulations and simulation-based learning
- adaptivity and AI in education
- technology enhanced learning
- digital transformation of K-12 education and higher education
- teacher education and teachers' technology-related skills

Short Bio

Michael Sailer studied educational sciences, psychology, and law at LMU Munich and University of Twente. He obtained a doctorate in psychology in 2016 at LMU Munich. After a short engagement as a business consultant at Information Multimedia Communication AG, he became postdoc at the chair of education and educational psychology at LMU Munich. Since 2019, he is senior lecturer and has been teaching research methods and the psychology of learning and instruction for study programs in educational science, teacher education, and psychology in the learning sciences. During winter term 2021/2022 he has been substitute W3-professor for school pedagogy with the focus on digitalization of teaching and learning at FAU Erlangen-Nurnberg. His research focuses on digital learning, gamified learning, simulation-based learning, AI in education, and the digital transformation of K-12 education as well as higher education. He is member of the Munich Center of the Learning Sciences and chair of the special interest group "Serious Games and Gamification" of the European Association for Technology-Enhanced Learning.

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Academic Qualification

- Since 11/2021 **LMU Munich (Germany), habilitation candidate at the faculty of psychology and educational sciences**
Positive interim evaluation (05/2022)
- 12/2012 – **LMU Munich (Germany), PhD student of the Doctoral Training Program in the Learning Sciences**
02/2016
Subjects: psychology (major) and educational sciences (minor)
Degree: Dr. phil. (summa cum laude; 0.5)
- 08/2010 – **University of Twente (the Netherlands), Erasmus student**
02/2011
Subject: educational science and technology (M.Sc.)
- 10/2006 – **LMU Munich (Germany), Magister Artium student**
07/2012
Subjects: educational sciences (major), psychology (minor), and law (minor)
Degree: MA (1.11)

Work Experience (including community service and family leave)

- 10/2021 – **FAU Erlangen-Nürnberg**
03/2022
W3-professor (interim) for school pedagogy with the focus on digitalization of teaching and learning
- Since 10/2019 **LMU Munich (Germany), Education and Educational Psychology, work unit of Prof. Dr. Frank Fischer**
Senior lecturer
- 09/2016 – **LMU Munich (Germany), Education and Educational Psychology, work unit of Prof. Dr. Frank Fischer**
09/2019
Research associate
- 04/2016 – **Information Multimedia Communication (IMC) AG (Germany)**
08/2016
Business consultant
- 02/2016 – **Family leave**
04/2016
- 12/2012 – **LMU Munich (Germany), Education and Educational Psychology, work unit of Prof. Dr. Heinz Mandl**
04/2016
Research associate and PhD student
- 2009 – **Several internships and working student appointments (at Dr. Schrick Management Consulting, Volkshochschule München, Stadtwerke München GmbH)**
2012
Working student and intern
- 10/2005 – **LMU Munich (Germany), University Hospital**
06/2006
Community service

Third party funding

- Seit 01/2022 **Wissenschaftliche Begleitung der Digitalisierung der Polizeiausbildung**, funded by Bayerische Staatsministerium für Digitales (~90 000 EUR)
Status: PI

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- From 10/2021 **Digitale Bildung an bayerischen Hochschulen II**, funded by Vereinigung der Bayerischen Wirtschaft e.V. (vbw). (~118 000 EUR)
Status: PI
- Since 05/2021 **Erstellung eines Online-Tools zur Erforschung und Training des prospektiven Gedächtnisses unter Anwendung von Gamification im Verwaltungs- und polizeilichen Kontext**, funded by Hessische Hochschule für Polizei und Verwaltung (HfPV) (9 700 Euro)
Status: PI
- Since 09/2020 **Kompetenznetzwerk Medienbildung und Digitalisierung (KMBD)**, funded by the Federal Ministry of Education and Research (BMBF). (~ 205 000 EUR)
Status: Project manager
- 04/2019 – 03/2021 **Digitale Bildung an bayerischen Schulen II**, funded by Vereinigung der Bayerischen Wirtschaft e.V. (vbw). (~125 000 EUR)
Status: PI
- 10/2018 – 09/2020 **Transfervorhaben zu ForschenLernen (Teilprojekt Kompetenzentwicklung II)**, funded by the Federal Ministry of Education and Research (BMBF). (~267 000 EUR)
Status: Support for funding acquisition and project staff
- 09/2018 – 08/2021 **Learn & Play** (Brandenburgische Technische Universität Cottbus-Senftenberg), funded by the European Union (EU) and the Ministry of Science, Research and Culture of the German Federal State of Brandenburg.
Status: Member of the advisory council
- 01/2018 – 12/2018 **Digitale Bildung an bayerischen Hochschulen**, funded by Vereinigung der Bayerischen Wirtschaft e.V. (vbw). (~94 000 EUR)
Status: PI
- 08/2017 – 08/2019 **The Wellbeing Game** (Leuphana University Lüneburg), funded by the Federal Centre for Health Education (BZgA).
Status: Member of the advisory council
- 01/2017 – 12/2017 **Digitale Bildung an bayerischen Schulen**, funded by Vereinigung der Bayerischen Wirtschaft e.V. (vbw). (~52 000 EUR)
Status: PI
- 04/2017 – 03/2020 **DFG-Forschungsgruppe COSIMA: Förderung von Diagnosekompetenzen in simulationsbasierten Lernumgebungen in der Hochschule** (in cooperation with TU Munich), funded by German Research Foundation (DFG). (Phase 1: ~254 000 EUR; Phase 2: ~270 000 EUR)
Status: Support for funding acquisition and associated researcher of project #6.
- 03/2017 – 06/2020 **FAMULUS - Förderung von Diagnosekompetenzen durch adaptive Online-Fallsimulationen in Medizin- und Lehramtsstudium** (in cooperation with Institute of Health Education,

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LMU Munich and Ubiquitous Knowledge Processing Lab, TU Darmstadt), funded by the Federal Ministry of Education and Research (BMBF). (~306 000 EUR)

Status: Support for funding acquisition and project staff

09/2016 –
07/2017

Bayerisches Forschungsinstitut für Digitale Transformation (Bavarian Academy of Sciences), consortium for the application for a German Internet Institute (BMBF).

Status: Support of application and application for a research project

12/2012 –
11/2014

GameLog - Gamification in der Intralogistik (in cooperation with TU Munich), funded by the Federal Ministry of Economics and Technology, (BMW). (~149 000 EUR)

Status: Project staff and PhD student

Reviewer activities

Journals

- British Journal of Educational Technology
- Computers and Education
- Computers in Human Behavior
- Educational Psychology Review
- German Journal of Human Resource Management
- GMS Journal for Medical Education
- Learning & Instruction
- Medical Education
- Oxford Review of Education
- Psychologie in Erziehung und Unterricht
- Review of Educational Research
- Simulation & Gaming
- Teaching and Teacher Education
- Technology, Knowledge, and Learning
- Zeitschrift für Erziehungswissenschaft

Funding agencies

- The Netherlands Organization for Scientific Research (NWO, the Dutch Research Council)

Memberships

- Chair of the Special Interest Group “Serious Games and Gamification” (SeGaGa; <https://ea-tel.eu/sig/segaga>) of the European Association for Technology-Enhanced Learning (EATEL)
- Munich Center of the Learning Sciences (MCLS)
- European Association for Research on Learning and Instruction (EARLI)

Commitment to self-administration

Since 05/2021

Member of the examinations board M.A. Pädagogik mit Schwerpunkt Bildungsforschung und Bildungsmanagement

04/2011 –
07/2011

Tutor for international Students (“LMU-Buddy-Program“)

Dr. Michael Sailer

02/2008 – Student representative for educational science at LMU Munich (Germany)
07/2012 and student representative in the faculty council of the faculty for
psychology and educational science

List of courses taught

- Lectures*
- Empirische Forschungsmethoden I-1 (B.A. Educational science): winter term 2019/2020, winter term 2020/2021
 - Empirische Forschungsmethoden I-2 (B.A. Educational science): summer term 2020, summer term 2021
- Courses (German-speaking)*
- Didaktisches Handeln und Gestaltung von Lernumgebungen im Rahmen der Methodenvorlesung (B.A. Educational science): winter term 2019/2020, winter term 2020/2021
 - Tutorenausbildung "Empirische Forschungsmethoden" (B.A. Educational science): summer term 2020, summer term 2021
 - Übung zu Empirische Forschungsmethoden I-1 (B.A. Educational science): winter term 2016/2017, winter term 2017/2018, winter term 2018/2019, winter term 2019/2020, winter term 2020/2021
 - Übung zu Empirische Forschungsmethoden I-2 (B.A. Educational science): summer term 2017, summer term 2018, summer term 2019, summer term 2020, summer term 2021
 - Entwicklung und Implementation virtueller Lehr-Lernumgebungen (Blended-learning course, B.A. Educational sciences): summer term 2015
 - Vertiefungsseminar im Bereich Lehr-Lern- und Trainingsforschung (M.A. Educational sciences): winter term 2013/2014
 - Gamification – Spielelemente zur Förderung von Lern- und Arbeitsmotivation (B.A. Educational sciences): summer term 2013
- Courses (English-speaking)*
- Learning, Instruction, Training and Technology (M. Sc. Psychology: learning sciences): summer term 2017, summer term 2018

List of theses supervised

- Educational sciences*
- 11 B.A. theses
 - 1 M.A. theses
- Psychology*
- 13 M.Sc. theses

Publications

Journal articles with peer-review (23)

- (1) Bai, S., Hew, K. F., **Sailer, M.**, & Jia, C. (2021). From top to bottom: How positions on different types of leaderboard may affect fully online student learning performance, intrinsic motivation, and course engagement. *Computers & Education*, 173, 104297. <https://doi.org/10.1016/j.compedu.2021.104297>
- (2) Bauer, E., Fischer, F., Kiesewetter, J., Shaffer, D. W., Fischer, M. R., Zottmann, J. M., & **Sailer, M.** (2020). Diagnostic Activities and Diagnostic Practices in Medical Education and Teacher Education: An Interdisciplinary Comparison. *Frontiers in Psychology*, 11, 2787. <https://doi.org/10.3389/fpsyg.2020.562665>
- (3) Fink, M. C., Radkowsch, A., Bauer, E., **Sailer, M.**, Kiesewetter, J., Schmidmaier, R., Siebeck, M, Fischer, F., & Fischer, M. R. (2021). Simulation research and design: a dual-level framework for multi-project research programs. *Educational Technology Research and Development*, 69, 809-841. <https://doi.org/10.1007/s11423-020-09876-0>
- (4) Kastorff, T., **Sailer, M.**, Vejvoda, J., Schultz-Pernice, F., Hartmann, V., Hertl, A., Berger, S., & Stegmann, K. (2022). Context-specificity to reduce bias in self-assessments: Comparing teachers' scenario-based self-assessment and objective assessment of technological knowledge. *Journal of Research on Technology in Education*. <https://doi.org/10.1080/15391523.2022.2062498>
- (5) Kiesewetter, J., **Sailer, M.**, Jung, V., Schönberger, R., Bauer, E., Zottmann, J., M., Hege, I., Fischer, F., & Fischer, M. R. (2020). Learning clinical reasoning: how virtual patient case format and prior knowledge interact. *BMC Medical Education*, 20(73). <https://doi.org/10.1186/s12909-020-1987-y>
- (6) Lohr, A., Stadler, M., Schultz-Pernice, F. Chernikova, O., Sailer, M., Fischer, F., & **Sailer, M.** (2021). On powerpointers, clickerers, and digital pros: Investigating the initiation of digital learning activities by teachers in higher education. *Computers in Human Behavior*, 119, 106715. <https://doi.org/10.1016/j.chb.2021.106715>
- (7) Niedermeier, S., **Sailer, M.**, Remböck, L. & Stadler, M. (2022). Ich packe meinen Koffer: Unterlagen und Performanz bei Open-Book-Klausuren. *Zeitschrift für Hochschulentwicklung*, 17(1), 157-177. <https://doi.org/10.3217/zfhe-17-01/10>
- (8) Radkowsch, A., **Sailer, M.**, Schmidmaier, R., Fischer, M. R., & Fischer, F. (2021). Learning to diagnose collaboratively – Effects of adaptive collaboration scripts in agent-based medical simulations. *Learning and Instruction*, 75, 101487. <https://doi.org/10.1016/j.learninstruc.2021.101487>
- (9) **Sailer, M.**, Bauer, E., Hofmann, R., Kiesewetter, J., Glas, J., Gurevych, I., & Fischer, F. (2022). Adaptive Feedback from Artificial Neural Networks Facilitates Pre-Service Teachers' Diagnostic Reasoning in Simulation-based Learning. *Learning and Instruction*, 101620. <https://doi.org/10.1016/j.learninstruc.2022.101620>
- (10) **Sailer, M.** & Homner, L. (2020). The gamification of learning: A meta-analysis. *Educational Psychology Review*, 32, 77–112. <https://doi.org/10.1007/s10648-019-09498-w>
- (11) **Sailer, M.** & Sailer, M. (2021). Gamification of in-class activities in flipped classroom lectures. *British Journal of Educational Technology*, 52(1), 75-90. <https://doi.org/10.1111/bjet.12948>
- (12) **Sailer, M.**, Hense, J. U., Mayr, S. K. & Mandl, H. (2017). How gamification motivates: An experimental study of the effects of specific game design elements on

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- psychological need satisfaction. *Computers in Human Behavior*, 69, 371-380.
<https://doi.org/10.1016/j.chb.2016.12.033>
- (13) **Sailer, M.**, Hense, J., Mandl, H. & Klevers, M. (2014). Psychological Perspectives on Motivation through Gamification. *Interaction Design and Architecture(s) Journal*, 19, 28-37.
- (14) **Sailer, M.**, Murböck, J., & Fischer, F. (2021). Digital learning in schools: What does it take beyond digital technology? *Teaching and Teacher Education*, 103, 103346. <https://doi.org/10.1016/j.tate.2021.103346>
- (15) **Sailer, M.**, Schultz-Pernice, F., & Fischer, F. (2021). Contextual facilitators for learning activities involving technology in higher education: The Cb-model. *Computers in Human Behavior*, 121, 106794.
<https://doi.org/10.1016/j.chb.2021.106794>
- (16) **Sailer, M.**¹, Stadler, M.¹, Botes, E., Fischer, F., & Greiff, S. (2021). Science knowledge and trust in medicine affect individuals' behavior in pandemic crises. *European Journal of Psychology of Education*. <https://doi.org/10.1007/s10212-021-00529-1>
- (17) **Sailer, M.**, Stadler, M., Schultz-Pernice, F., Franke, U., Schöffmann, C., Paniotova, V., Hugasic, L., & Fischer, F. (2021). Technology-related teaching skills and attitudes: Validation of a scenario-based self-assessment instrument for teachers. *Computers in Human Behavior*, 115, 106625.
<https://doi.org/10.1016/j.chb.2020.106625>
- (18) Seufert, S., Guggemos, J., & **Sailer, M.** (2021). Technology-related knowledge, skills, and attitudes of pre- and in-service teachers. *Computers in Human Behavior*, 115, 106552. <https://doi.org/10.1016/j.chb.2020.106552>
- (19) Stadler, M., Kolb, N., & **Sailer, M.** (2021). The right amount of pressure: Realizing time pressure in online exams. *Distance Education*, 42(2), 219-230.
<https://doi.org/10.1080/01587919.2021.1911629>
- (20) Stadler, M., **Sailer, M.**, & Fischer, F. (2021). Knowledge as a formative construct: A good alpha is not always better. *New Ideas in Psychology*, 60, 100832.
<https://doi.org/10.1016/j.newideapsych.2020.100832>
- (21) Tolks, D., Lampert, C., Dadaczynski, K., Maslon, E., Paulus, P., & **Sailer, M.** (2020). Spielerische Ansätze für die Prävention und Gesundheitsförderung: Serious Games und Gamification. *Bundesgesundheitsblatt*, 63, 698–707.
<https://doi.org/10.1007/s00103-020-03156-1>
- (22) Tolks, D., Romeike B. F. M., Ehlers, J., Kuhn, S., Kleinsorgen, C., Huber, J., Fischer, M. R., Bohne, C., Merz, L., **Sailer, M.**, & Hege, I. (2021). The online inverted classroom model (oICM). A blueprint to adapt the inverted classroom to an online learning setting in medical and health education [Version 2]. *MedEdPublish*.
<https://doi.org/10.15694/mep.2020.000113.2>
- (23) Tolks, D., **Sailer, M.**, Dadaczynski, K., Lampert, C., Huberty, J., Paulus, P. & Horstmann, D. (2019). ONYA – The Wellbeing Game: How to Use Gamification to Promote Wellbeing. *Information*, 10(2), 58. <http://doi.org/10.3390/info10020058>

Editorship (1)

- (1) Seufert, S., Guggemos, J., & **Sailer, M.** (Eds.). (2021). Technology-related knowledge, skills, and attitudes of pre- and in-service teachers. *Computers in Human Behavior*, 115. <https://www.sciencedirect.com/journal/computers-in-human-behavior/special-issue/10H54H4RK6S>

¹ The authors shared first authorship

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Books (5)

- (1) Günthner, W., Mandl, H., Klevers, M., & **Sailer, M.** (2015). *GameLog – Gamification in der Intralogistik*. fml – Lehrstuhl für Fördertechnik Materialfluss Logistik, Technische Universität München.
- (2) Lohr, A., **Sailer, M.**, Schultz-Pernice, F., Vejvoda, J., Murböck, J., Heitzmann, N., Giap, S. & Fischer, F. (2021). *Digitale Bildung an bayerischen Schulen vor und während der Corona-Pandemie*. vbw.
- (3) **Sailer, M.** (2016). *Die Wirkung von Gamification auf Motivation und Leistung – Empirische Studien im Kontext manueller Arbeitsprozesse*. Springer.
<https://doi.org/10.1007/978-3-658-14309-1>
- (4) **Sailer, M.**, Murböck, J. & Fischer, F. (2017). *Digitale Bildung an bayerischen Schulen - Infrastruktur, Konzepte, Lehrerbildung und Unterricht*. vbw.
- (5) **Sailer, M.**, Schultz-Pernice, F., Chernikova, O., Sailer, M. & Fischer, F. (2018). *Digitale Bildung an bayerischen Hochschulen – Ausstattung, Strategie, Qualifizierung und Medieneinsatz*. vbw.

Book chapters and conference proceedings with peer-review (12)

- (1) Bauer, E., **Sailer, M.**, Kiesewetter, J., Schulz, C., Gurevych, I., Fischer, M. R., & Fischer, F. (2022). Learning to Diagnose Students' Behavioral, Developmental and Learning Disorders in a Simulation-Based Learning Environment for Pre-Service Teachers In F. Fischer & A. Opitz (Eds.), *Learning to Diagnose with Simulations* (pp. 97-107). Springer. https://doi.org/10.1007/978-3-030-89147-3_8
- (2) Bauer, E., **Sailer, M.**, Kiesewetter, J., Schulz, C., Pfeiffer, J., Gurevych, I., Fischer, M. R., & Fischer, F. (2019). Using ENA to analyze pre-service teachers' diagnostic argumentations: A conceptual framework and initial applications. In E. Brendan, Misfeldt, M., & Siebert-Evenstone A. (Eds.), *International Conference on Quantitative Ethnography* (pp. 14-25). Springer. https://doi.org/10.1007/978-3-030-33232-7_2
- (3) Bauer, E., **Sailer, M.**, Kiesewetter, J., Shaffer, D. W., Schulz, C., Pfeiffer, J., Gurevych, I., Fischer, M. R., & Fischer, F. (2020). Pre-Service Teachers' Diagnostic Argumentation: What is the Role of Conceptual Knowledge and Cross-Domain Epistemic Activities? *The Interdisciplinarity of the Learning Sciences. 14th International Conference of the Learning Sciences (ICLS) 2020, Volume 4* (pp. 2399-2400). International Society of the Learning Sciences.
<https://doi.org/10.22318/icls2020.2399>
- (4) Eberle, J., Stegmann, K., Lund, K., Barrat, A., **Sailer, M.**, & Fischer, F. (2013). Fostering learning and collaboration in a scientific community – evidence from an experiment using RFID devices to measure collaborative processes. In N. Rummel, M. Kapur, M. Nathan & S. Puntambekar (Eds.), *To See the World and a Grain of Sand: Learning across Levels of Space, Time, and Scale: CSCL 2013 Conference Proceedings. Vol. 1: Full Papers & Symposia* (pp. 169-175). International Society of the Learning Sciences.
- (5) Figas, P., **Sailer, M.**, Hagel, G., & Sailer, M. (2018). The effectiveness of different levels of activation in higher education. *4th International Conference on Higher Education Advances* (pp. 1289-1295). HEAd' 18.
<http://doi.org/10.4995/HEAd18.2018.8191>
- (6) Hense, J., Klevers, M., **Sailer, M.**, Horenburg, T., Mandl, H., & Günthner, W. (2014). Using gamification to enhance staff motivation in logistics. In S. A. Meijer & R. Smeds (Eds.), *Frontiers in Gaming Simulation* (pp. 206-213). Springer.
https://doi.org/10.1007/978-3-319-04954-0_24

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- (7) Klevers, M., **Sailer, M.**, & Günthner, W. (2015). Implementation model for the gamification of business processes - A study from the field of material handling. In T. Kaneda, H. Kanegae, Y. Toyoda & P. Rizzi (Eds.), *Simulation and Gaming in the Network Society* (pp. 173-184). Springer. https://doi.org/10.1007/978-981-10-0575-6_14
- (8) Pfeiffer, J., Meyer, C. M., Schulz, C., Kieseewetter, J., Zottmann, J., **Sailer, M.**, Bauer, E., Frank, F., Fischer, M. R., & Gurevych, I. (2019). FAMULUS: interactive annotation and feedback generation for teaching diagnostic reasoning. In *Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing* (pp. 73-78). <https://www.aclweb.org/anthology/D19-3013.pdf>
- (9) Radkowsch, A., **Sailer, M.**, Fischer, M. R., Schmidmaier, R., & Fischer, F. (2022). Diagnosing Collaboratively: A Theoretical Model and a Simulation-Based Learning Environment. In F. Fischer & A. Opitz (Eds.), *Learning to Diagnose with Simulations* (pp. 123-141). Springer. https://doi.org/10.1007/978-3-030-89147-3_10
- (10) **Sailer, M.**, Hense, J., Mandl, H., & Klevers, M. (2017). Fostering development of work competencies and motivation via gamification. In M. Mulder (Ed.), *Competence-Based Vocational and Professional Education – Bridging the World of Work and Education* (pp. 795-818). Springer. https://doi.org/10.1007/978-3-319-41713-4_37
- (11) Schulz, C., Meyer, C. M., Kieseewetter, J., **Sailer, M.**, Bauer, E., Fischer, M. R., Fischer, F. & Gurevych, I. (2019). Analysis of automatic annotation suggestions for hard discourse-level tasks in expert domains. In *Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics* (pp. 2761-2772). <https://www.aclweb.org/anthology/P19-1265.pdf>
- (12) Tolks, D., & **Sailer, M.** (2021). Gamification als didaktisches Mittel in der Hochschulbildung. In Hochschulforum Digitalisierung (Ed.), *Digitalisierung in Studium und Lehre gemeinsam gestalten*. Springer. https://doi.org/10.1007/978-3-658-32849-8_29

Conferences (35)

- (1) Bauer, E., **Sailer, M.**, Kieseewetter, J., Fischer, M. R., & Fischer, F. (2018, September). *Förderung von Diagnosekompetenzen durch simulationsbasiertes Lernen im Lehramtsstudium: Effekte sequenzieller vs. holistischer Fallsimulationen*. Vortrag auf dem 51. Kongress der Deutschen Gesellschaft für Psychologie (DGPs), Frankfurt am Main, Deutschland.
- (2) Bauer, E., **Sailer, M.**, Schulz, C., Kieseewetter, J., Fischer, M. R., Gurevych, I., & Fischer, F. (2019, August). *Diagnostic activity patterns of preservice teachers in learning with case-simulations*. Paper presented at the 18th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), Aachen, Germany.
- (3) Bauer, E., **Sailer, M.**, Kieseewetter, J., Fischer, M. R., & Fischer, F. (2021, August). *Pre-service teachers' diagnostic argumentation: Diagnostic accuracy is not enough*. Paper presented at the 19th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), online.
- (4) Bauer, E., **Sailer, M.**, Kieseewetter, J., Fischer, M. R., & Fischer, F. (2021, September). *Diagnostisches Argumentieren von Lehramtsstudierenden*. Vortrag auf der 18. Tagung der Fachgruppe Pädagogische Psychologie (PaePsy), online.
- (5) Eberle, F., Stegmann, K., Lund, K., Barrat, A., **Sailer, M.**, & Fischer, F. (2013, August). *Fostering learning in a scientific community through access to community*

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- knowledge*. Paper presented at the 15th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), Munich, Germany.
- (6) Eberle, J., Stegmann, K., Lund, K., Barrat, A., **Sailer, M.**, & Fischer, F. (2013, May). *The development of collaborations in a scientific community – evidence from an experiment using sociometric RFID devices*. Poster presented at XXXIII Sunbelt Social Network Conference of the International Network for Social Network Analysis, Hamburg, Germany.
- (7) Jung, V., Schönberger, R., **Sailer, M.**, Bauer E., Fischer F., Fischer M. R., & Kiewewetter J. (2018, September). *Der Effekt von Vorwissen und Falldarbietungsformat auf die Diagnostizierbarkeit und den prozeduralen Wissenserwerb Medizinstudierender*. Vortrag auf der Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA) 2018, Wien, Österreich.
- (8) Kastorff, T., **Sailer, M.**, Hartmann, V., Vejvoda, J., Schultz-Pernice, F., Hertl, A., Berger, S., Fischer, F., & Stegmann, K. (2022). *Szenarien zur Abwendung verzerrter Selbsteinschätzung? Übereinstimmung von objektiver Bewertung und szenarienbasierter Selbsteinschätzung des technologischen Wissens von (angehenden) Lehrkräften*. Vortrag auf der GEBF Tagung der Gesellschaft für Empirische Bildungsforschung (GEBF) 2022, online.
- (9) Kiewewetter, J., Jung V., **Sailer, M.**, Schoenberger R., Bauer E., Zottmann J., Hege I., Fischer F., & Fischer M. R. (2018, August). *Fostering diagnostic competence with whole cases vs. serial cue cases: Effects of whole case vs. serial cue on learning process and outcomes*. Paper presented at the Association of Medical Education Conference, Basel, Switzerland.
- (10) Lohr, A., **Sailer, M.**, Stadler, M. & Frank, F. (2021, September). *Initiierung von digitalen Lernaktivitäten im Unterricht: verschiedene Profile von Lehrkräften*. Vortrag auf der 18. Tagung der Fachgruppe Pädagogische Psychologie (PaePsy), online.
- (11) Lohr, A., **Sailer, M.**, Stadler, M. & Frank, F. (2021, September). *Initiierung von digitalen Lernaktivitäten durch Lehrkräfte und kontextuelle Einflussfaktoren: Kann ein Modell aus dem Hochschulkontext auf den Schulkontext übertragen werden?* Vortrag auf der DigiGEBF Tagung der Gesellschaft für Empirische Bildungsforschung (GEBF), online.
- (12) Niedermeier, S., **Sailer, M.**, Schätz R., & Mandl, H. (2015, July). *Can basic psychological needs be fostered by a moderate constructivist designed online training programs?* Poster presented at the 14th European Congress of Psychology (ECP), Milan, Italy.
- (13) **Sailer, M.**, Klevers, M., Hense, J., & Mandl, H. (2013, September). *Förderung von Motivation durch Gamification in Arbeitskontexten*. Vortrag auf der 78. Tagung der Arbeitsgruppe für Empirische Pädagogische Forschung (AEPF) der DGfE, Dortmund, Deutschland.
- (14) **Sailer, M.**, Hense, J., Mandl, H. & Klevers, M. (2014, April). *Feasibility of Gamification to Foster Learning and Working Motivation - A design-based research study in intralogistics*. Paper presented at the Annual Meeting of the American Educational Research Association (AERA) 2014, Philadelphia, USA.
- (15) **Sailer, M.**, Mandl, H. (2014, September). *Motivationsförderung in Trainingsprozessen durch Gamification - eine Studie aus dem Bereich Intralogistik*. Vortrag auf der 79. Tagung der Arbeitsgruppe für Empirische Pädagogische Forschung (AEPF) der DGfE, Hamburg, Deutschland.
- (16) **Sailer, M.**, & Mandl, H. (2015, April). *Fostering psychological need satisfaction via gamification - A Design-Based Research Study*. Paper presented at the Annual

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- Meeting of the American Educational Research Association (AERA) 2015, Chicago, USA.
- (17) **Sailer, M.**, & Mandl, H. (2015, August). *Psychological need satisfaction via gamification*. Paper presented at the 16th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), Limassol, Cyprus.
 - (18) **Sailer, M.**, & Mandl, H. (2015, July). *Using gamification to foster motivation and performance in the workplace*. Paper presented at the 14th European Congress of Psychology (ECP), Milan, Italy.
 - (19) **Sailer, M.**, Homner, L. & Schwaighofer, M. (2017, September). *Gamification und Lernerfolg – eine Metaanalyse*. Vortrag auf der 82. Tagung der Arbeitsgruppe für Empirische Pädagogische Forschung (AEPF) der DGfE, Tübingen, Deutschland.
 - (20) **Sailer, M.**, Hoppenz, C., Beckers, K., & Pape, S. (2017, September). *Förderung von IT-Sicherheitsbewusstheit durch spielbasiertes Lernen – eine experimentelle Studie*. Vortrag auf der 82. Tagung der Arbeitsgruppe für Empirische Pädagogische Forschung (AEPF) der DGfE, Tübingen, Deutschland.
 - (21) **Sailer, M.**, Kiesewetter, J., Meyer, C., Fischer, F., Gurevych, I., & Fischer, F. (2017, September). *Förderung von Diagnosekompetenzen durch Fallsimulationen im Lehramtsstudium*. Poster präsentiert auf der 82. Tagung der Arbeitsgruppe für Empirische Pädagogische Forschung (AEPF) der DGfE, Tübingen, Deutschland.
 - (22) **Sailer, M.**, Murböck, J., & Fischer, F. (2018, September). *Digitale Bildung: medienbezogene Lehrkompetenzen und Qualität des Medieneinsatzes im Unterricht*. Vortrag im Rahmen des Symposiums *Erfassung mediendidaktischer Kompetenzen von Lehrkräften und Effekte auf den Einsatz von digitalen Medien im Unterricht* auf dem 51. Kongress der Deutschen Gesellschaft für Psychologie (DGPs), Frankfurt am Main, Deutschland.
 - (23) **Sailer, M.**, Murböck, J., & Fischer, F. (2019, August). *Media literacy of teachers and technology equals high-quality teaching in classrooms?* Paper presented at the 18th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), Aachen, Germany.
 - (24) **Sailer, M.**, Bauer, E., Kiesewetter, J., Pfeiffer, J., Schulz, C., Gurevych, I., Fischer, M. R., & Fischer, F. (2021, März). *Automatisches Adaptive Feedback in simulationsbasierten Lernumgebung zur Förderung von Diagnosekompetenzen in der Lehrerbildung*. Vortrag auf der DigiGEBF Tagung der Gesellschaft für Empirische Bildungsforschung (GEBF), online.
 - (25) **Sailer, M.** (2021, April). Diskutant des Symposiums *Auswirkungen von COVID-19 auf die Hochschullehre: Online Lehren und Lernen als Herausforderung und Chance*. Vortrag auf der DigiGEBF Tagung der Gesellschaft für Empirische Bildungsforschung (GEBF), online.
 - (26) **Sailer, M.**, Bauer, E., Hofmann, R., Kiesewetter, J., Glas, J., Gurevych, I., & Fischer, F. (2021, September). *Automatisches adaptive Feedback zur Förderung von Diagnosekompetenzen in der Lehramtsausbildung*. Vortrag auf der 18. Tagung der Fachgruppe Pädagogische Psychologie (PaePsy), online.
 - (27) Sailer, M. & **Sailer, M.** (2019, August). *Gamification of flipped classroom in higher education*. Paper presented at the 18th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), Aachen, Germany.
 - (28) Schoenberger, R., Jung, V., **Sailer, M.**, Zottmann, J., Fischer, F., Fischer, M. R., & Kiesewetter, J. (2018, August). *Emotions of Medical Students When Learning with Virtual Patients*. Poster presented at the European Diagnostic Error in Medicine Conference, Bern, Switzerland.
 - (29) Schulz, C., Kiesewetter, J., **Sailer, M.**, Bauer, E., Fischer, F., Fischer, M. R., & Gurevych, I. (2018, October) *The Theory of Scientific Reasoning and*

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- Argumentation in Practice*. Paper presented at the Conference on Bridging the Gap between Formal Argumentation and Actual Human Reasoning, Bochum, Germany.
- (30) Schulz, C., Meyer, C. M., Kiesewetter, J., **Sailer, M.**, Bauer, E., Fischer, M. R., Fischer, F., & Gurevych, I. (2019, July). *Analysis of Automatic Annotation Suggestions for Hard Discourse-Level Tasks in Expert Domains*. Paper presented at the 57th Annual Meeting of the Association for Computational Linguistics (ACL) 2019, Florence, Italy.
- (31) Schulz, C., **Sailer, M.**, Kiesewetter, J., Bauer, E., Fischer, F., Fischer, M. R. & Gurevych, I. (2018, October). *Automatic Recommendations for Data Coding: a use case from medical and teacher education*. Paper presented at the IEEE eScience Conference, Amsterdam, Netherlands.
- (32) Schulz, C., **Sailer, M.**, Kiesewetter, J., Meyer, C. M., Gurevych, I., Fischer, M. R., & Fischer, F. (2018, February). *Automatische Analyse von Diagnosekompetenzen in Fallsimulationen*. Vortrag auf der 6. Jahrestagung der Gesellschaft für Empirische Bildungsforschung (GEBF), Basel, Schweiz.
- (33) Stegmann, K., Berger, S., Kastorff, T., **Sailer, M.**, & Fischer, F. (2021, August). *Effects of digital media on learning in higher education: A systematic review of meta-analyses*. Accepted paper at the 19th Biennial Conference for the Education and Citizenship: Learning and Instruction and the Shaping of Futures (EARLI), Gothenburg, Sweden.
- (34) Stegmann, K., Kastorff, T., Berger, S., **Sailer, M.**, & Fischer, F. (2021, August). *Effects of digital media on knowledge acquisition in school: A systematic review of meta-analyses*. Accepted paper at 19th Biennial Conference for the Education and Citizenship: Learning and Instruction and the Shaping of Futures (EARLI), Gothenburg, Sweden.
- (35) Tolks, D., Dadaczynski, K., **Sailer, M.**, Lampert, C., Paulus, P., & Fischer, M. R. (2019, September). *Gamification in der medizinischen Ausbildung – Level 2*. Vortrag auf der Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA) 2019, Frankfurt am Main, Deutschland

Dissemination papers (4)

- (1) Hirner, C., **Sailer, M.**, Schultz-Pernice, F., & Fischer, F. (2018). Auf dem Prüfstand - Kernkompetenzen von Lehrkräften für das Unterrichten in einer digitalen Welt. *Einsichten und Perspektiven*, 4, 22-28.
- (2) Klevers, M., **Sailer, M.**, Günthner, W. A. (2013) Motivationssteigerung in der Intralogistik. *Logistik für Unternehmen*, 27(10), 55-56.
- (3) **Sailer, M.** & Homner, L. (2019). Does Gamification of Learning work? *gamification-research.org*, August, 2019. <http://gamification-research.org/2019/08/does-gamification-of-learning-work/>
- (4) **Sailer, M.**, Tolks, D., & Mandl, H. (2019). Potenziale von Gamification: Empirische Befunde zum Einsatz in Schule und Unterricht. *Computer + Unterricht*, 115, 8-11.
- (5) Schulz, C., **Sailer, M.**, Kiesewetter, J., Meyer, C.M., Gurevych, I., Fischer, F. & Fischer, M. R. (2017). Fallsimulationen und automatisches adaptives Feedback mittels Künstlicher Intelligenz in digitalen Lernumgebungen. *e-teaching.org*, Oktober, 2017. <https://www.e-teaching.org/materialien/literatur/schulz-sailer-kiesewetter-meyer-gurevych-fischer-fischer-2017>
- (6) Vejvoda, J., Schultz- Pernice, F., Graf, M., Lohr, A., Heitzmann, N., Fischer, F. & **Sailer, M.** (in press). Kurs halten, Fahrt aufnehmen: Bayerns Schulen auf dem Weg

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ins digitale Zeitalter. *SchulVerwaltung Bayern - Zeitschrift für Schulentwicklung und Schulmanagement.*

Invited talks (9)

- (1) **Sailer, M.**, Hense, J., & Mandl, H. (2013, October). *Motivationspsychologie in der Logistik: Gamification als innovativer Ansatz*. Invited talk at Logistikseminar „Erschließung von Produktivitätspotenzialen in der Logistik“, TU Munich, Munich, Germany.
- (2) Günthner, W.A., Klevers, M. & **Sailer, M.** (2015, May). *Gamification in der Intralogistik - Prozesse spielerisch verbessern*. Invited talk at Transport Logistics 2015 exhibition, Munich, Germany.
- (3) **Sailer, M.** (2016, December). *Gamification Förderung von Motivation in Lern- und Arbeitsprozessen*. Invited talk at Universität der Bundeswehr München, Neubiberg, Germany.
- (4) **Sailer, M.** (2017, March). *Gamification in der Intralogistik*. Invited talk at the 20th VLB- Logistikfachkongress – Trends in der Getränke Logistik, Munich, Germany.
- (5) **Sailer, M.** (2017, November). *Digitale Bildung an bayerischen Schulen*. Invited talk at the day of education, Auswirkungen der Digitalisierung auf die berufliche Bildung at staatliche berufliche Schulzentrum Freising, Freising, Germany.
- (6) **Sailer, M.** (2017, December). *Gamification research: open questions and future challenges*. Keynote at the International PLAYtrack Conference 2017, Aarhus, Denmark.
- (7) **Sailer, M.** (2019, May). *Digitale Bildung an bayerischen Hochschulen*. Keynote at the conference Netzwerktreffen Digitale Lehre 2019, LMU Munich, Munich, Germany.
- (8) **Sailer, M.** & Sailer, M. (2021, July). *Gamification of Flipped Classroom in Higher Education*. Invited talk at The Centre for Education and Research at the University of Northampton, Northampton, UK.
- (9) **Sailer, M.** (2021, November). *Digitales Lehren und Lernen – Potenziale, Voraussetzungen und Innovationen*. Keynote at Online Fachtagung 50+ Jahre Legasthenie-Zentrum Berlin e. V.: Bildung · Teilhabe · Lernen. Berlin, Germany.