
Publications (updated 02/2023)

Articles in Peer-Reviewed Journals (9)

- (1) **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, Article 562665. <https://doi.org/10.3389/fpsyg.2020.562665>
- (2) **Bauer, E.***, Heitzmann, N.*, & Fischer, F. (2022). Simulation-based learning in higher education and professional training: Approximations of practice through representational scaffolding. *Studies in Educational Evaluation*, 75, Article 101213. <https://doi.org/10.1016/j.stueduc.2022.101213>
- (3) **Bauer, E.**, Sailer, M., Kiesewetter, J., Fischer, M. R., & Fischer, F. (2022). Diagnostic Argumentation in Teacher Education: Making the Case for Justification, Disconfirmation, and Transparency. *Frontiers in Education*, 7, Article 977631. <https://doi.org/10.3389/educ.2022.977631>
- (4) **Bauer, E.**, Sailer, M., Kiesewetter, J., Fischer, M. R., & Fischer, F. (in press). Facilitating Justification, Disconfirmation, and Transparency in Diagnostic Argumentation: Effects of Automatic Adaptive Feedback in Teacher Education. Accepted for publication in *Zeitschrift für Pädagogische Psychologie*.
- (5) Fink, M. C., Radkowsch, A., **Bauer, E.**, Sailer, M., Kiesewetter, J., Schmidmaier, R., Siebeck, M., Fischer, F., & Fischer, M. R. (2020). 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>
- (6) Fischer, F.*, **Bauer, E.***, Seidel, T., Schmidmaier, R., Radkowsch, A., Neuhaus, B.J., Hofer, S.I., Sommerhoff, D., Ufer, S., Kuhn, J., Küchemann, S., Sailer, M., Koenen, J., Gartmeier, M., Berberat, P., Frenzel, A., Heitzmann, N., Holzberger, D., Pfeffer, J., Lewalter, D., Niklas, F., Schmidt-Hertha, B., Gollwitzer, M., Vorholzer, A., Chernikova, O., Schons, C., Pickal, A.J., Bannert, M., Michaeli, T., Stadler, M. and Fischer, M.R. (2022). Representational scaffolding in digital simulations – learning professional practices in higher education. *Information and Learning Sciences*, 123(11/12), 645-665. <https://doi.org/10.1108/ILS-06-2022-0076>
- (7) 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>
- (8) Kiesewetter, J., Hege, I., Sailer, M., **Bauer, E.**, Schulz, C., Platz, M., & Adler, M. (2022). A usability study for implementing remote collaboration in a virtual patient platform. *JMIR Medical Education*, 8(3), Article e24306. <https://doi.org/10.2196/24306>
- (9) Sailer, M., **Bauer, E.**, Hofmann, R., Kiesewetter, J., Glas, J., Gurevych, I., & Fischer, F. (2023). Adaptive feedback from artificial neural networks facilitates pre-service teachers' diagnostic reasoning in simulation-based learning. *Learning and Instruction*, 83, Article 101620. <https://doi.org/10.1016/j.learninstruc.2022.101620>

Book Chapters and Conference Proceedings With Peer-Review (6)

- (1) **Bauer, E.**, Sailer, M., Kiesewetter, Fischer, M. R., & Fischer, F. (2021). Pre-Service Teachers' Argumentations in the Context of Assessment. *The Interdisciplinarity of the Learning Sciences. 15th International Conference of the Learning Sciences (ICLS) 2021 Proceedings*, (pp. 669- 672). International Society of the Learning Sciences. <https://doi.org/10.22318/icls2021.669>
- (2) **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*. Springer, Cham. https://doi.org/10.1007/978-3-030-89147-3_8
- (3) **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
- (4) **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? In Gresalfi, M. and Horn, I. S. (Eds.), *The Interdisciplinarity of the Learning Sciences. 14th International Conference of the Learning Sciences (ICLS) 2020 Proceedings*, (pp. 2399-2400). International Society of the Learning Sciences. <https://doi.org/10.22318/icls2020.2399>
- (5) Pfeiffer, J., Meyer, C. M., Schulz, C., Kiesewetter, 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>
- (6) Schulz, C., Meyer, C. M., Kiesewetter, 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>

Conferences (22)

- (1) **Bauer, E.** (2021, September). *Förderung von Diagnosekompetenzen mittels simulationsbasiertem Lernen und automatisiertem, adaptivem Feedback*. Bundeskongress für Schulpsychologie 2021 (BUKO), online.
- (2) **Bauer, E.**, Sailer, M., Kiesewetter, J., Fischer, M. R., & Fischer, F. (2018, September). *Förderung von Diagnosekompetenzen durch simulationsbasiertes Lernen im Lehramtsstudium: Effekte sequenzieller vs. holistischer Fallsimulationen*. Presented at the 51. Kongress der Deutschen Gesellschaft für Psychologie (DGPs), Frankfurt am Main, Germany.
- (3) **Bauer, E.**, Sailer, M., Kiesewetter, J., Fischer, M. R., & Fischer, F. (2021, June). *Pre-Service Teachers' Argumentations in the Context of Assessment*. Paper presented at the International Conference in the Learning Sciences (ICLS), online.
- (4) **Bauer, E.**, Sailer, M., Kiesewetter, J., Fischer, M. R., & Fischer, F. (2021, August). *Pre-Service Teachers' Diagnostic Argumentation: Diagnostic Accuracy Is Not*

Dr. Elisabeth Bauer

- Enough*. Presented at the 19th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), online.
- (5) **Bauer, E.**, Sailer, M., Kiesewetter, J., Fischer, M. R., & Fischer, F. (2021, September). *Diagnostisches Argumentieren von Lehramtsstudierenden*. Presented at the Tagung der Fachgruppe Pädagogische Psychologie (PAEPSY), online.
 - (6) **Bauer, E.**, Sailer, M., Kiesewetter, J., Schulz, C., Pfeiffer, J., Gurevych, I., Fischer, M. R. & Fischer, F. (2019, October). *Using ENA to Analyze Pre-service Teachers' Diagnostic Argumentations: A Conceptual Framework and Initial Applications*. Paper presented at the International Conference on Quantitative Ethnography (ICQE), Madison WI, US.
 - (7) **Bauer, E.**, Sailer, M., Kiesewetter, J., Shaffer, D. W., Schulz, C., Pfeiffer, J., Gurevych, I., Fischer, M. R., & Fischer, F. (2020, June). *Pre-Service Teachers' Diagnostic Argumentation: What is the Role of Conceptual Knowledge and Cross-Domain Epistemic Activities?* Accepted as poster and short paper at the International Conference in the Learning Sciences (ICLS), online.
 - (8) **Bauer, E.**, Sailer, M., Schulz, C., Kiesewetter, J., Fischer, M. R., Gurevych, I., & Fischer, F. (2019, August). *Diagnostic activity patterns of preservice teachers in learning with case-simulations*. Presented at the 18th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), Aachen, Germany.
 - (9) Jung, V., Schönberger, R., Sailer, M., **Bauer E.**, Fischer F., Fischer M. R., & Kiesewetter J. (2018, September). *Der Effekt von Vorwissen und Falldarbietungsformat auf die Diagnoserichtigkeit und den prozeduralen Wissenserwerb Medizinstudierender*. Presented at the Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA), Wien, Austria.
 - (10) Kiesewetter, 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 (AMEE), Basel, Switzerland.
 - (11) Kiesewetter, J., Zottmann, J., **Bauer E.**, Sailer, M., Fischer, M. R. (2020, March). *Assessing dyads' collaborative clinical reasoning—more than just the better students' knowledge*. Poster presented at the Ottawa Conferences on the Assessment of Competence in Medicine and the Healthcare Professions. Kuala Lumpur, Malaysia.
 - (12) Kiesewetter, J., Werl, H., **Bauer E.**, Nederstigt, K., Sailer, M., Fischer, F., & Fischer, M. R. (2021, August). *Static vs. computer-supported adaptive feedback in individual and collaborative clinical reasoning* Short Communication at the Association of Medical Education Conference (AMEE), online.
 - (13) Kiesewetter, J., Werl, H., **Bauer E.**, Nederstigt, K., Sailer, M., Fischer, F., & Fischer, M. R. (2022, August). *Static vs. computer-supported adaptive feedback in individual and collaborative clinical reasoning* Paper presented at the Association of Medical Education Conference (AMEE), Lyon, France.
 - (14) Sailer, M., **Bauer, E.**, Hofmann, R., Kiesewetter, J., Glas, J., Gurevych, I., & Fischer, F. (2021, August). *Effects of automatic adaptive AI-based feedback on diagnostic skills of pre-service teachers*. Presented at the 19th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), online.
 - (15) Sailer, M., **Bauer, E.**, Hofmann, R., Kiesewetter, J., Glas, J., Gurevych, I., & Fischer, F. (2021, September). *Automatisches adaptives Feedback zur Förderung*

Dr. Elisabeth Bauer

- von *Diagnosekompetenzen in der Lehramtsausbildung*. Presented at the Tagung der Fachgruppe Pädagogische Psychologie (PAEPSY), online.
- (16) Sailer, M., **Bauer, E.**, Kiesewetter, J., Pfeiffer, J., Schulz, C., Gurevych, I., Fischer, M. R., & Fischer, F. (2020, March). *Automatisches Adaptives Feedback in simulationsbasierten Lernumgebung zur Förderung von Diagnosekompetenzen in der Lehrerbildung*. Presented at the Tagung der Gesellschaft für Empirische Bildungsforschung (digiGEBF21), online.
- (17) Sarbu-Rothsching, S. M., Plett, C., Steffen, J., **Bauer, E.**, Sailer, M., Fischer, F., Zirkel, J., König, S., Gartmeier, M., Berberat, P. O., Kiesewetter, J., Fischer, M. R. & Zottmann, J. M. (2022, September). *Effekte von Feedbackart und Bearbeitungsform auf die Diagnosekompetenz Medizinstudierender beim Lernen mit Online-Fallsimulationen - Ergebnisse einer experimentellen Feldstudie*. Presented at the Tagung der Gesellschaft für Medizinische Ausbildung (GMA), Halle-Wittenberg, Germany.
- (18) Pfeiffer, J., Meyer, C. M., Schulz, C., Kiesewetter, J., Zottmann, J., Sailer, M., **Bauer, E.**, Fischer, F., Fischer, M. R., Gurevych, I. (2019, November): *FAMULUS: Interactive Annotation and Feedback Generation for Teaching Diagnostic Reasoning*. Paper presented at the Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing (EMNLP-IJCNLP), Hong Kong, China.
- (19) Schäffner, P., **Bauer, E.**, Schulz, C., Gurevych, I., Fischer, M. R., & Kiesewetter, J. (2019, September). *The role of epistemic activities on diagnostic outcomes in medical students' learning with two different virtual patient case formats* Presented at the Tagung der Gesellschaft für Medizinische Ausbildung (GMA), Frankfurt, Germany.
- (20) Schulz, C., Kiesewetter, J., Sailer, M., **Bauer, E.**, Fischer, F., Fischer, M. R., & Gurevych, I. (2018, October). *The Theory of Scientific Reasoning and Argumentation in Practice*. Paper presented at the Conference on Bridging the Gap between Formal Argumentation and Actual Human Reasoning, Bochum, Germany.
- (21) 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), Florence, Italy.
- (22) 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.

Invited Talks (1)

- (1) **Bauer, E.**, Sailer, M., Kiesewetter, J., Schulz, C., Gurevych, I., Fischer, M. R. & Fischer, F. (2019, May). *Learning to diagnose in simulations: Towards automated feedback*. Invited talk at the International Symposium on Dyslexia & Dyscalculia: Digital Diagnostics, Intervention and Game-Based Learning (LONDI), LMU Klinik und Poliklinik für Kinder- und Jugendpsychiatrie, Psychosomatik und Psychotherapie, Munich, Germany.