

Veröffentlichungen in Fachzeitschriften/ Publications in journals (peer reviewed)

2023

- Amare, E. M., Siebeck, M., Yigzaw, T., Fischer, M. R., Tadesse, M., & **Berndt, M.** (2023). Differences in perceptions of capability, autonomy, and expectations between residents and surgical team members in executing EPAs in Ethiopian medical education. *Heliyon*, 9, e14316. <https://doi.org/10.1016/j.heliyon.2023.e14316>
- Gisi, M., Ferrari, V., Dubon, F., Fischer, M. R., Angstwurm, M., & **Berndt, M.** (2023). Objective and subjective consequences of pandemic-related study program changes for the perception of the practical year – a comparison of medical students in Germany with and without a second state examination. *GMS Journal for Medical Education*, 40(4), Doc53. <https://doi.org/10.3205/zma001635>
- Bauer, E., Greisel, M., Kuznetsov, I., **Berndt, M.**, Kollar, I., Dresel, M., Fischer, M. R., & Fischer, F. (2023). Using natural Language processing to support peer-feedback in the age of artificial intelligence: A cross-disciplinary framework and a research agenda. *British Journal of Educational Technology*, 0(0), 1-24. <https://doi.org/10.1111/bjet.13336>
- Bekele, A., Worku, S., Gedamu, S., & **Berndt, M.** (2023). Predictors of college academic achievement for medical students: The case of Gondar University, College of Medicine and Health Sciences, Ethiopia. *Advances in Medical Education and Practice*, 14, 1-11. <https://doi.org/10.2147/AMEP.S406031>
- Knof, H., **Berndt, M.**, Shiozawa, T. (accepted). The influence of collaborative learning and self-organization on medical student's academic performance in anatomy. *Annals of Anatomy*.
- Ruf, V., Horrer, A., **Berndt, M.**, Hofer, S. I., Fischer, F., Fischer, M. R., Zottmann, J., Kuhn, J., & Küchemann, S. (2023). A literature review comparing experts' and non-experts' visual processing of graphs during problem-solving and learning. *Education Sciences*, 13(2), 216. <https://doi.org/10.3390/educsci13020216>
- Styn, A., Scheiter, K., Fischer, M. R., Shiozawa, T., Behrmann, F., Steffan, A., Kugelmann, D., & **Berndt, M.** (2023). Effects of tablet-based drawing and paper-based methods on medical students' learning of gross anatomy. *Anatomical Science Education*. 16(2), 266-279. <https://doi.org/10.1002/ase.2237>

2022

- Amare, E. M., Siebeck, M., Sendekie, T. Y., Fischer, M. R., & **Berndt, M.** (2022). Development of an Entrustable Professional Activities (EPA) framework to inform surgical residency training programs in Ethiopia: A three-round national Delphi method study. *Journal of Surgical Education*. 79(1), 56-68. <https://doi.org/10.1016/j.jsurg.2021.06.023>
- Berndt, M.**, Strijbos, J. W., & Fischer, F. (2022). Impact of sender and peer-feedback characteristics on performance, cognitive load, and mindful cognitive processing. *Studies in Educational Evaluation*, 75, 101197. <https://doi.org/10.1016/j.stueduc.2022.101197>
- Dusch, M., Mayer, M., Treede, R.-D., Fischer, M. R., & **Berndt, M.** (2022). Projektbericht zur Förderung wissenschaftlicher Kompetenzen im Fach Schmerzmedizin im Rahmen der curricularen Lehre. *Der Schmerz*, 1-8. <https://doi.org/10.1007/s00482-022-00628-y>

2021

Berndt, M.*, Schmidt, F. M.*, Sailer, M., Fischer, F., Fischer, M. R., & Zottmann, J. M. (2021). Investigating statistical literacy and scientific reasoning & argumentation in medical-, social sciences-, and economics students. *Learning and Individual Differences*, 86, 1-9. <https://doi.org/10.1016/j.lindif.2020.101963>

von Stülpnagel, C., Kutschker, S., Sperl, W., Berweck, S., Staudt, M., **Berndt, M.***, & Kluger, G.* (accepted). Childhood stroke: Long-term outcome and health-related quality of life with a special focus on the development of epilepsy. *Neuropediatrics*. doi:10.1055/s-0041-1731805

Schmidt, F. M., Zottmann, J. M., Sailer, M., Fischer, M. R., & **Berndt, M.** (2021). Statistical literacy and scientific reasoning & argumentation in physicians. *GMS Journal for Medical Education*, 38(4), Doc77. <https://doi.org/10.3205/zma001473>

* geteilte Erst-/Letztautorenschaft; shared first/last authorship

2020

Berndt, M., Thomas, F., Bauer, D., Härtl, A., Hege, I., Kääb, S., Fischer, M. R., & Heitzmann, N. (2020). The influence of prompts on final year medical students' learning process and achievement in ECG interpretation, *GMS Journal for Medical Education*, 37(1), 1-9. doi:10.3205/zma001304

Wirth, S., Mueck, F., Berndt, M. T., **Berndt, M.**, Fischer, M., & Maxien, D. (2020). Quality of findings, interpretation, and self-assessment of readers of chest x-rays acquired in one plane depending on the use of an anatomical viewing scheme and reader expertise, *Der Radiologe*, 60(9), 850-862. <https://doi.org/10.1007/s00117-020-00673-7>.

2019

Sobez, L. M., Kim, S. H., Angstwurm, M., Störmann, S., Pörringer, D., Schmidutz, F., Prezzi, D., Kelly-Morland, C., Sommer, W. H., Sabel, B., Nörenberg, D., **Berndt, M.**, & Galiè, F. (2019). Creating high-quality radiology reports in foreign languages through multilingual structured reporting, *European Radiology*, 1-11. doi:10.1007/s00330-019-06206-8

2018

Berndt, M., & Fischer, M. R. (2018). The role of electronic health records in clinical reasoning. *Annals of the New York Academy of the Sciences*. doi: 10.1111/nyas.13849

Berndt, M., Strijbos, J. W., & Fischer, F. (2018). Effects of written peer-feedback content and sender's competence on perceptions, performance, and mindful cognitive processing. *European Journal of Psychology of Education*, 33(1), 31-49. <https://doi.org/10.1007/s10212-017-0343-z>

2015

Bolzer, M., Strijbos, J. W., & Fischer, F. (2015). Inferring mindful cognitive-processing of peer-feedback via eye-tracking: The role of feedback-characteristics, fixation-durations and transitions. *Journal of Computer Assisted Learning*, 31(5), 422-434. <https://doi.org/10.1111/jcal.12091>

2014

Schworm, S., & **Bolzer, M.** (2014). Learning with video-based examples - Are you sure you do not need help? *Journal of Computer Assisted Learning*, 30(6), 546-558. <https://doi.org/10.1111/jcal.12063>

Chapters in books and peer-reviewed proceedings

2017

- Ouellette, D. L., Zottmann, J., **Bolzer, M.**, Fischer, F., & Fischer, M. R. (2017). Investigating the Interplay of Epistemological Beliefs and Scientific Reasoning and Argumentation. In H. Laitko, H. A. Mieg & H. Parthey (Eds.), *Forschendes Lernen: Wissenschaftsforschung Jahrbuch 2016* (pp. 137-151). Berlin: Wissenschaftlicher Verlag Berlin.
- Wirth, S., Krupp, J., **Bolzer, M.**, Reiser, M., & Fischer, M. R. (2017). Thoraxradiografie: Güte von Befundung, Beurteilung und Selbsteinschätzung in Abhängigkeit von Fallschwierigkeit, realem Vorgehen während der Bildbefundung (eye-tracking) und des Weiterbildungsstands. *RöFo - Fortschritte auf dem Gebiet der Röntgenstrahlen und der bildgebenden Verfahren*, 189, 1-124. doi: 10.1055/s-0037-1600455.

2014

- Bolzer, M.**, Strijbos, J. W., & Fischer, F. (2014). Effects of peer feedback content and sender's competence on perceptions and mindful cognitive processing of written peer feedback: An eye tracking study. In J. L. Polman, E. A. Kyza, D. K. O'Neill, I. Tabak, W. R. Penuel, A. S. Jurow, K. O'Connor, T. Lee, and L. D'Amico (Eds.), *Learning and becoming in practice: The International Conference of the Learning Sciences (ICLS) 2014, Volume 3* (pp. 1417–1419). Boulder, CO: International Society of the Learning Sciences.

Conference papers (peer reviewed)

2023

- Greisel, M., Bauer, E., Kuznetsov, I., **Berndt, M.**, Dresel, M., Fischer, M. R., Kollar, I., & Fischer, F. (2023, June). *How to use theory to implement natural language processing for peer-feedback*. Paper presented at the Annual Meeting of the International Society of the Learning Sciences (ISLS), Montréal, Canada.
- Scherff, A. D., Käab, S., Fischer, M. R., & **Berndt, M.** (2023, August). *EYE-ECG2: Increasing medical students' ECG interpretation skills via eyetracking & cued retrospective reporting*. Poster to be presented at the Conference of the International Association for Medical Education in Europe (AMEE), Glasgow, Scotland.
- Scherff, A. D., Käab, S., Fischer, M. R., & **Berndt, M.** (2023, September). *EYE-EKG2: Verbesserung der EKG-Befundungskompetenz von Medizinstudierenden durch Eyetracking und Cued Retrospective Reporting*. Vortrag akzeptiert auf der Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA), Osnabrück, Deutschland.

2022

- Knof, H., **Berndt, M.**, & Shiozawa, T. (2022, September). *Der Einfluss von kollaborativem Lernen und Selbstorganisation auf die Anatomie-Prüfungsleistung Medizinstudierender*. Vortrag auf der Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA), Halle (Saale), Deutschland.
- Odontides, L., Scheiter, K., Shiozawa, T., Fischer, M. R., Kugelmann, D., & **Berndt, M.** (2022, August). *Effects of learning strategies and motivation on anatomy test performance of undergraduate medical students*. Poster presented at the Conference of the International Association for Medical Education (AMEE), Lyon, France.

- Odontides, L., Scheiter, K., Shiozawa, T., Fischer, M. R., Kugelmann, D., & **Berndt, M.** (2022, September). *Learning strategies as predictor for anatomy test performance of undergraduate medical students*. Vortrag auf der Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA), Halle (Saale), Deutschland.
- Scherff, A. D., Käab, S., Fischer, M. R., & **Berndt, M.** (2022, August). *Effects of expert eye-tracking videos with cued retrospective reporting on medical students' ECG interpretation skills*. Online paper session presented at the Conference of the International Association for Medical Education in Europe (AMEE), Lyon, France.
- Scherff, A. D., Käab, S., Fischer, M. R., & **Berndt, M.** (2022, September). *Effects of expert eye-tracking videos with cued retrospective reporting on medical students' ECG interpretation skills*. Vortrag auf der Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA), Halle (Saale), Deutschland.
- Simonsohn, A., Fischer, M. R., & **Berndt, M.** (2022, August). *Effects of interprofessional online learning on interprofessional attitude and competencies of healthcare students*. Online paper session presented at the Conference of the International Association for Medical Education in Europe (AMEE), Lyon, France.
- Simonsohn, A., Fischer, M. R., & **Berndt, M.** (2022, September). *Effekte von interprofessionellem Online-Lernen auf die Entwicklung interprofessioneller Kompetenzen bei Studierenden im Gesundheitswesen*. Vortrag auf der Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA), Halle (Saale), Deutschland.
- Styn, A., Scheiter, K., Fischer, M. R., Behrmann, F., Steffan, A., Shiozawa, T., Kugelmann, D., & **Berndt, M.** (2022, September). *Tablet-based drawing as a learning method for gross anatomy*. Vortrag auf der Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA), Halle (Saale), Deutschland.

2021

- Berndt, M.**, Sommerhoff, C. P., Merkle, M., & Fischer, M. R. (2021, September). *Online- oder Präsenzprüfung? Vergleich der Prüfungsleistung und Einschätzung der Objektivität durch teilnehmende Medizinstudierende*. Vortrag auf der Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA), Zürich, Schweiz.

2020

- Berndt, M.**, Schmidt, F., Zottmann, J., Sailer, M., & Fischer, M. (2020, March). *Development of Statistical Literacy and Scientific Reasoning & Argumentation Skills in Medical Doctors*. Paper session presented at the Ottawa Conference 2020, Kuala Lumpur, Malaysia.
- Berndt, M.**, Schmidt, F., Zottmann, J., Sailer, M., & Fischer, M. (2020, January). *Development of Statistical Literacy and Scientific Reasoning & Argumentation Skills in Medical Doctors*. Paper session presented at the 17th Asia Pacific Medical Education Conference (APMEC), Singapore, Singapore. **Awarded with the Merit Award category short communications.**

2019

- Berndt, M.**, Schmidt, F., Zottmann, J. M., Sailer, M., & Fischer, M. R. (2019, August). *Development of Statistical Literacy and Scientific Reasoning & Argumentation Skills in Medical Doctors*. Paper session presented at the Conference of the International Association for Medical Education in Europe (AMEE), Vienna, Austria.

von Stülpnagel-Steinbeis, C., Kutschker, S., **Berndt, M.**, Kluger, G., & Berweck, S. (2019, September). *Langzeitverlauf und gesundheitsbezogene Lebensqualität mit besonderem Schwerpunkt auf der Entwicklung einer Epilepsie nach kindlichem Schlaganfall*. Poster presented at the Kongress für Kinder- und Jugendmedizin 2019, Munich, Germany.

2018

Berndt, M., Schmidt, F., Sailer, M., Fischer, F., Fischer, M. R., & Zottmann, J. (2018, March). *Investigating scientific reasoning & argumentation and statistical literacy in higher education: The role of domain and study progress*. Paper session presented at the INHERE Conference, Munich, Germany.

Berndt, M., Schmidt, F., Sailer, M., Fischer, F., Fischer, M. R., & Zottmann, J. (2018, November). *Statistical literacy and scientific reasoning & argumentation as cross-domain key qualifications*. Paper session presented at the Medical Education Conference of the Association of American Medical Colleges (AAMC), Austin, TX, USA.

Gruber, C., Zimmermann, H., Zottmann, J. M., Ertl-Wagner, B., Fischer, M. R., & **Berndt, M.** (2018, September). Der Einfluss von Patientenportraitaufnahmen und Expertisegrad auf den Patientenbezug, das Blickverhalten und die Befundqualität bei der Röntgenthoraxbefundung. In H. Gruber (Chair), *Radiologische Aufnahmen befunden: Analyse und Förderung visueller Expertise*, Symposium conducted at the 51. Kongress der Deutschen Gesellschaft für Psychologie (DGPs), Frankfurt, Germany.

Thompson, H., Nistor, N., Atkinson, C., & **Berndt, M.** (2018, April). *Formative assessment in high school mathematics education: Computer-aided diagnostics tools predict end-of-course performance*. Poster session presented at the Annual Meeting of the American Educational Research Association (AERA), New York City, NY, USA.

2017

Berndt, M., Gruber, C., Zottmann, J. M., Zimmermann, H., Ertl-Wagner, B., & Fischer, M. R. (2017, March). *Influence of patient portraits on the quality of interpretation of radiographic images and physician-patient relationship: An eye tracking study*. Paper session presented at the 5th International Conference for Research in Medical Education (RIME), Düsseldorf, Germany.

Berndt, M., Strijbos, J. W., & Fischer, F. (2017, September). *Role of sender/peer feedback characteristics for performance and cognitive processing (eye tracking)*. Paper session presented at the 17th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), Tampere, Finland.

Gruber, C., Zottmann, J. M., Zimmermann, H., Ertl-Wagner, B., Fischer, M. R., & **Berndt, M.** (2017, August). *Can patient portraits increase the quality of interpretation of radiographic images and physician-patient relationship? An eye tracking study*. Paper session presented at the 2017 Conference of the International Association for Medical Education (AMEE), Helsinki, Finland.

Gruber, C., Zimmermann, H., Zottmann, J. M., Ertl-Wagner, B., Fischer, M. R., & **Berndt, M.** (2017, September). *Der Einfluss von Patientenportraitaufnahmen auf den Patientenbezug, das Blickverhalten und die Befundqualität von Röntgenaufnahmen bei Radiologen mit unterschiedlichem Expertisegrad*. Paper session presented at the Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA), Münster, Germany.

Ouellette, D. L., Dudko, Y., Zottmann, J., **Berndt, M.**, Fischer, F. & Fischer, M. R. (2017, March). *The Role of Epistemic Beliefs in Clinical Reasoning: Preliminary Results of a Systematic*

Literature Review. Paper session presented at the 5th International Conference for Research in Medical Education (RIME), Düsseldorf, Germany.

Schmidt, F. M., **Berndt, M.**, Sailer, M., Fischer, F., Fischer, M. R., & Zottmann, J. (2017, September). *Zur Erfassung von Statistical Literacy als Schlüsselqualifikation Medizin- und Pädagogikstudierender*. Paper session presented at the 82. Tagung der Arbeitsgruppe für Empirische Pädagogische Forschung (AEPF), Tübingen, Deutschland.

Zottmann, J. M., **Berndt, M.**, Schmidt, F. M., Ouellette, D. L., Sailer, M., Fischer, F., & Fischer, M. R. (2017, August). *Investigating Scientific Reasoning and Argumentation in Medical Education and Beyond*. Poster session presented at the 2017 Conference of the International Association for Medical Education (AMEE), Helsinki, Finland.

Zottmann, J., **Berndt, M.**, Schmidt, F. M., Kolano, A., Ouellette, D. L., Sailer, M., Fischer, F., & Fischer, M. R. (2017, September). *Scientific Reasoning and Argumentation - Studien zur Analyse und Förderung des wissenschaftlichen Denkens und Argumentierens von Studierenden der Humanmedizin*. Poster session presented at the Jahrestagung der Gesellschaft für Medizinische Ausbildung (GMA), Münster, Germany.

2016

Ouellette, D., Zottmann, J., **Bolzer, M.**, Fischer, F., & Fischer, M. R. (2016, August). *Development of a Meta-Analysis Coding Scheme on the Interplay of Epistemological Beliefs and Scientific Reasoning and Argumentation*. Poster session presented at the EARLI SIG 20 & 26 Conference 2016, Ghent, Belgium, August 22-24, 2016.

2014

Bolzer, M., Strijbos, J. W., & Fischer, F. (2014, July). *The application of eye tracking to explore mindful cognitive processing as a link between peer feedback characteristics, perceptions, and performance*. Paper session presented at the 18th Conference of the Junior Researchers of the European Association for Research on Learning and Instruction (JURE), Nicosia, Cyprus, June 30 - July 4, 2014.

Bolzer, M., Strijbos, J. W., & Fischer, F. (2014, August). *The application of eye tracking to explore mindful cognitive processing as a link between peer feedback characteristics, perceptions, and performance*. Paper session presented at the SIG 1 Conference of the European Association for Research on Learning and Instruction (EARLI), Madrid, Spain, August 27-29, 2014.

Bolzer, M., Strijbos, J. W., & Fischer, F. (2014, August). *The application of eye tracking to explore mindful cognitive processing as a link between peer feedback characteristics, perceptions, and performance*. Paper session presented at the SIG 6/7 Conference of the European Association for Research on Learning and Instruction (EARLI), Rotterdam, The Netherlands, August 27-29, 2014.

2013

Bolzer, M., Strijbos, J. W., & Fischer, F. (2013, August). *Cognitive processing of written peer-feedback: An eye-tracking study*. Poster session presented at the 15th Biennial Conference of the European Association for Research on Learning and Instruction (EARLI), Munich, August 27-31, 2013.

Bolzer, M., Strijbos, J. W., & Fischer, F. (2013, August). *Cognitive processing of written peer-feedback: An eye-tracking study*. Poster session presented at the Conference of the Junior Researchers of the European Association for Research on Learning and Instruction (JURE), Munich, August 27-31, 2013.

Bolzer, M., Strijbos, J. W., & Fischer, F. (2013, September). *Kognitive Verarbeitung von textbasiertem Peer Feedback: Eine Eye-tracking Studie*. Paper session presented at the 14th Fachgruppentagung Pädagogische Psychologie, Hildesheim, Germany, September 23-25, 2013.

2011

Störmann, S., Wöck, M., Kern, A. B., Chiapponi, C., op den Winkel, M., Gebhardt, C., Krug, C., **Bolzer, M.**, Müller, T., & Angstwurm, M. (2011, Oktober). *Fallbearbeitung online oder offline? Leistungsunterschiede im Vergleich*. Poster session presented at GMA Annual Conference 2011, Munich, Germany.

Wöck, M., **Bolzer, M.**, Kern, A. B., Störmann, S., Müller, T., & Angstwurm, M. (2011, Oktober). *Evaluation des Kompaktkurses Gynäkologie und Pädiatrie im Rahmen des Staatsexamens-Repetitoriums der LMU München anhand einer Online Klausur*. Poster session presented at GMA Annual Conference 2011, Munich, Germany.

Gutachtertätigkeit/ Journal reviewer

Australian Journal of Education (impact factor 2022: 1.3, 5year 1.8)
BMC Health Services Research (impact factor 2022: 2.8, 5year 3.5)
Computers & Education (impact factor 2022: 12.0)
Computers in Human Behavior (impact factor 2022: 9.9)
GMS Journal for Medical Education (impact factor 2022: 1.6)
Instructional Science (impact factor 2022: 2.5, 5year 2.9)
International Journal of Artificial Intelligence in Education (impact factor 2022: 4.9, 5years 4.9)
Learning and Instruction (impact factor 2022: 6.2)
SAGE Open
ScholarOne Manuscripts
Studies in Educational Evaluation (impact factor 2022: 3.1)