

CV Prof. Dr. Frank Fischer

Faculty:	Ludwig-Maximilians-Universität München Leopoldstr. 13, D-80802 München Psychology and Educational Sciences frank.fischer@psy.lmu.de phone: +49 (0)89 2180-5146
Date of Birth	December 9, 1965

Academic background:

1994 – Diploma in psychology, RWTH Aachen
1997 –Dr. phil. - Doctorate in Psychology, LMU
2002 Habilitation (postdoctoral lecturer qualification), LMU

Areas of Specialization

Educational Psychology; Learning and Instruction; Technology-Enhanced Learning; Learning Sciences

Positions held

1997-2001 Research Fellow at LMU Munich
2001-2004 University of Tübingen (Knowledge Media Research Center IWM/KMRC)
2002-2003 Professor for General and Instructional Psychology at the University of Erfurt (temporary full professorship)
2004-2006 Associate Professor for Research on Learning and Instruction at the University of Tübingen and the Knowledge Media Research Center, Tübingen
2005 Offer of a chair professorship of General and Instructional Psychology at the University of Erfurt (full professorship, offer declined)
2006- Full Professor of Educational Science and Educational Psychology, LMU Munich
2008-2010 Director of the Department of Psychology, LMU Munich
2011-2013 Dean of the Faculty of Psychology and Educational Sciences, LMU Munich
2009- Director of the Munich Center of the Learning Sciences

Honors, Awards, Grants

Honors

2005 Outstanding Journal Article Award of the Association for Educational Communication and Technology
2005 Most Useful Research Paper Award by NASA Virtual Design Center
2011 2 Most Cited Article Awards (2007-2011), Learning and Instruction
2012-2013 President of the International Society of the Learning Sciences (ISLS)
2015-2016 Senior Researcher in Residence am Center of Advanced Studies, LMU
2017 Fellow, International Society of the Learning Sciences
2019 Member, Bavarian Academy of Science

Invited Talks and Keynotes (selection)

Invited talks and keynote lectures (selection): University of Utrecht (Keynote at ICLS 2008),

University of Exeter (Keynote at EARLI 2009), University of Tuebingen (Keynote at Patterns, 2009), ETH Zürich (2010), LMU (Keynote at BRIGHT, 2010), University of Poitiers (2010), University of Barcelona (2013), University of Eastern Finland at Jovensu (2013), Universität Salzburg (2014), Nanyang Technological University, National Institute of Education, Singapore (2014), University of Prague (Keynote at SIGDIAL, 2015), Universität Bern (Keynote at GMA, 2016), Universität Wien (2016), University of Gothenburg (2016), University of Hongkong (2016), University of Edinburgh (2017), University Carlos V Madrid (2017), Universität Bern (Keynote at TdL, 2020), Amrita University (Ammachi Labs, 2021), Leuven (Keynote at WOG, 2021), Universität Tübingen (Keynote at LEAD retreat, 2021), University of Oslo (Improvement of Teaching and Learning, 2021), ZAHW Winterthur (2021); University of Hiroshima (Keynote at ICLS, 2022).

Research Grants (selection):

Bayerisches Elite Netzwerk / Bavarian Elite Network

International Doctoral School “REASON - Academic Reasoning and Argumentation” with 12 PhD candidates on funded positions and 8 associate doctoral members, (Speaker/coordinator Frank Fischer with 8 Co-PI at LMU), 4.000.000 € for 8 years.

European Commission, Brussels

STELLAR – Sustaining Technology Enhanced Learning Large-scale multidisciplinary Research; Network of Excellence, EU FP 7, Coordinator: Open University, UK; Frank Fischer as a (Co-)Principal Investigator, Coordinator of Work package 3 (ca. 4.900.000€; LMU: 483.000 Euro (2009-2012).

Deutscher Akademischer Austauschdienst, Bonn

DAAD, International Promovieren in Deutschland/ IPID-IL1,
(Frank Fischer PI and coordinator): 242.887 Euro (2010-2013)

Deutsche Forschungsgemeinschaft, Bonn

DFG Elk Math – Effects of collaboration scripts and worked examples on the acquisition of mathematical argumentation skills (together with K. Reiss, TUM); Frank Fischer: 256.000 € (2010 – 2017)

Deutsche Forschungsgemeinschaft, Bonn

DFG Virtual PhD Program “Knowledge acquisition and knowledge exchange with new media”, DFG Research training group, Spokesperson Friedrich Heese, University of Tübingen (Co-PI 2005-2007): 150.000 €.

Deutsche Forschungsgemeinschaft, Bonn

DFG Research Unit “Orchestrating of Computer-Supported Processes of Learning and Instruction” FOR 738, University of Tübingen (Co-PI, 2006-2009); Beteiligung an 3 Teilprojekten 195.000 €.

Deutsche Forschungsgemeinschaft, Bonn

DFG Research Unit “Fostering diagnostic competences in simulation-based learning environments at university” FOR 2386, Speaker, 2.000.000 € (with 8 co-PIs, Phase I 2017-2019)

DFG Research Unit “Fostering diagnostic competences in simulation-based learning environments at university” FOR 2386, Speaker, 2.000.000 € (with 8 co-PIs, Phase II 2020-2023)

Bundesministerium für Bildung und Forschung, Berlin

BMBF KOMPARE, Kompetenzentwicklung beim wissenschaftlichen Denken im Hochschulstudium (2011 – 2015, 645.877 € overall, p.a. 64.000 € for Co-PI Frank Fischer)

Bundesministerium für Bildung und Forschung, Berlin

BMBF Famulus, Förderung von Diagnosekompetenzen durch adaptive Online-Fallsimulationen in Medizin- und Lehramtsstudium (Verbund)

(2017 – 2019, 1 Mio. € overall, 300000 € for Co-PI Frank Fischer)

Bayerisches Ministerium für Unterricht und Kultus

Evaluation of the large scale project „Digitales Lernen Bayern“; 2012-2017, 150.000 €.

Vereinigung der Bayerischen Wirtschaft (vbw)

Multiple funding phases of “Digital learning at Bavarian Schools“ and “Digital Learning in Higher Education in Bavaria (2017-2021, ca. 250.000 €, together with Michael Sailer)

Memberships

Committees and panels:

Extended University Board LMU (2011-2013)

Faculty Council Psychology and Educational Sciences (since 2009)

Department of Psychology, Board (since 2006) and Executive Board (Geschäftsführende Leitung, 2008-2011; 2013-)

Master committee M.Sc. Learning Sciences; PhD commission (ongoing)

University review committee for the funding of e-learning projects (2016-2018; chair)

Review panel Educational Research, Academy of Finland 2015, 2016

Elected *external* member in 12 finding commissions (Berufungsausschüsse) since 2009.

Ad hoc reviewer for DFG, BMBF, Humboldt Stiftung, NWO (Netherlands), FWO (Belgium) several national and international foundations.

Editorships

Associate Editor of American Educational Research Journal

Editorial Boards of international peer-reviewed journals

American Educational Research Journal

Learning and Instruction

International Journal of Computer-Supported Collaborative Learning

Journal of the Learning Sciences

Educational Psychologist

Advisory functions and boards

Member of the Scientific Advisory Board at the Federal Ministry of Education and Research (BMBF) Gemeinschaftsaufgabe “Bildung in Deutschland im internationalen Vergleich”

Advisory Board of the Centers for Educational Research at Humboldt University Berlin and University of Würzburg

Member of the Wissenschaftsrat committee on “Bewertung der Ergebnisse der humanmedizinischen Reformstudiengänge (2014-2015)

Member of the Board of Directors of the International Society of the Learning Sciences 2009-2015

Member of the Board of TELEARC (Technology Enhanced Learning European Advanced Research Consortium)

International reviewer for tenure cases and full professorship promotions

Carnegie-Mellon-University

Haifa University

University of Pennsylvania

University of Wisconsin-Madison

Nanyang Technological University, Singapore

External Examiner, M.Sc. Educational Technology, University of Hong Kong

Member in scientific organisations

Deutsche Gesellschaft für Erziehungswissenschaft (DGfE), Gesellschaft für Empirische Bildungsforschung (GEBF), Deutsche Gesellschaft für Psychologie (DGPs), European Association for Research on Learning and Instruction (EARLI), American Educational Research Association (AERA), International Society of the Learning Sciences (ISLS), Network of Academic Programs in the Learning Sciences (NAPLeS)

Research Impact

Publications, see <http://scholar.google.com/citations?user=R0duC7sAAAAJ&hl=en&oi=ao>

Overall number of citations (all publications, September, 2021)

according to Google Scholar is >14.000

h-value according to Google Scholar: 57

Outreach and Dissemination

Invited Talks, Seminars and Workshops in companies (e.g. Apetito, BMW, Siemens) and public organizations (e.g., Bayerische Staatskanzlei, Bayerisches Ministerium für Kultus und Wissenschaft, Kunst und Sport, Vereinigung der Bayerischen Wirtschaft).

TV appearances (e.g., BR/ARD Alpha, München TV)

Interviews in radio, newspapers (e.g., Sueddeutsche Zeitung, Spiegel Online, Financial Times Deutschland, Bayerischer Rundfunk)

In magazines and journals (e.g. Wirtschaft und Weiterbildung)

Publications

Publications in peer-reviewed journals

Aleven, V., Stahl, E., Schworm, S., Fischer, F., & Wallace, R. (2003). Help seeking in

- interactive learning environments. *Review of Educational Research*, 73(3), 277-320.
- 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*. Advance online publication. <https://doi.org/10.3389/fpsyg.2020.562665>
- Bauer, K., & Fischer, F. (2007). The educational research-practice interface revisited: a scripting perspective. *Educational Research and Evaluation*, 13(3), 221-236.
- 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. doi:10.1007/s10212-017-0343-z.
- Bichler, S., Schwaighofer, M., Stadler, M., Bühner, M., Greiff, S., & Fischer, F. (2020). How working memory capacity and shifting matter for learning with worked examples—A replication study. *Journal of Educational Psychology*, 112(7), 1320–1337. <https://doi.org/10.1037/edu0000433>
- Bolzer, M., Strijbos, J.-W., & Fischer, F. (2014). Inferring mindful cognitive-processing of peer-feedback via eye-tracking: role of feedback-characteristics, fixation-durations and transitions. *Journal of Computer Assisted Learning*. [doi: 10.1111/jcal.12091]
- Chernikova, O., Heitzmann, N., Fink, M., Timothy, V., Seidel, T., & Fischer, F. (2019). Facilitating diagnostic competences in higher education - A meta-analysis in medical and teacher education. *Educational Psychology Review*, 32, 157-196. <https://doi.org/10.1007/s10648-019-09492-2> [online]
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- Clark, D., & Fischer, F. (2003). Learning through online collaborative discourse. *International Journal of Educational Policy, Research and Practice*, 4(1), 11-15.
- Csanadi, A., Eagan, B., Kollar, I., Shaffer, D. W., & Fischer, F. (2018). When coding-and-counting is not enough: using epistemic network analysis (ENA) to analyze verbal data in CSCL research. *International Journal of Computer Supported Collaborative Learning*, 13, 419-438. doi:10.1007/s11412-018-9292-z
- Csanadi, A., Kollar, I., & Fischer, F. (2020). Pre-service teachers' evidence-based reasoning during pedagogical problem-solving: better together? *European Journal of Psychology of Education*, 36, 147–168. <https://doi.org/10.1007/s10212-020-00467-4>
- Demetriadis, S., Papadopoulos, P., Stamelos, I., & Fischer, F. (2008). The effect of scaffolding students' context-generating cognitive activity in technology-enhanced case-based learning. *Computers & Education*, 51,2.
- Dillenbourg, P., & Fischer, F. (2007). Basics of Computer-Supported Collaborative Learning. *Zeitschrift für Berufs- und Wirtschaftspädagogik*, 21, 111-130.
- Eberle, J., Stegmann, K., Barrat, A., Fischer, F., & Lund, K. (2021). Initiating scientific collaboration across career levels and disciplines – a network analysis on behavioral data. *International Journal of Computer-Supported Collaborative Learning*. Advance online publication. <https://doi.org/10.1007/s11412-021-09345-7>
- Eberle, J., Stegmann, K., & Fischer, F. (2014). Legitimate peripheral participation in communities of practice. Participation support structures for newcomers in faculty student councils. *Journal of the Learning Sciences*, 23(2), 216-244.
- Eberle, J., Stegmann, K., & Fischer, F. (2015). Moving Beyond Case Studies: Applying Social

- Network Analysis to Study Learning as Participation in Communities of Practice. *Learning: Research and Practice*, 1(2), 100-112. [doi: 10.1080/23735082.2015.1028712]
- Engelmann, K., Neuhaus, B. J., & Fischer, F. (2016). Fostering scientific reasoning in education - meta-analytic evidence from intervention studies. *Educational Research and Evaluation*. <http://dx.doi.org/10.1080/13803611.2016.1240089>
- Ertl, B., Fischer, F., & Mandl, H. (2004). Conceptual and socio-cognitive support for collaborative learning in videoconferencing environments. *Computers & Education*, 47(3), 298-315.
- Fink, M. C., Reitmeier, V., Stadler, M., Siebeck, M., Fischer, F., & Fischer, M. R. (2021). Assessment of diagnostic competences with standardized patients versus virtual patients: Experimental study in the context of history taking. *Journal of Medical Internet Research*. Advance online publication. <https://doi.org/10.2196/21196>
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- Fischer, F., Bruhn, J., Gräsel, C. & Mandl, H. (2000). Kooperatives Lernen mit Videokonferenzen: Gemeinsame Wissenskonstruktion und individueller Lernerfolg. *Kognitionswissenschaft*, 9 (1), 5-16.
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- Fischer, F., Gräsel, C., Kittel, A. & Mandl, H. (1997). Strategien zur Bearbeitung von Diagnoseproblemen in komplexen Lernumgebungen. *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 29, 62-82.
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- Kollar, I., Wecker, C., Langer, S. & Fischer, F. (2011). Webbasiertes Forschendes Lernen im naturwissenschaftlichen Unterricht. *Psychologie in Erziehung und Unterricht*, 58(4), 280-292.
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