

Curriculum vitae

Charleen Brand

Educational Psychology and Technology Research Group
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Academic Education

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| Since 10/2020 | <p>Ph.D. student at Educational Psychology and Technology Research Group, Educational Research Institute, Ruhr-University Bochum, Germany; supervised by Prof. Dr. Nikol Rummel and Prof. Dr. Katharina Loibl (University of Education, Freiburg)</p> <p><i>Topic of research:</i>
Preparatory Mechanisms for Learning in Problem Solving Prior to Instruction</p> |
| 04/2017 – 06/2020 | <p>Master of Arts in Educational Research and English/American Studies, Ruhr-University Bochum, Germany</p> <p><i>Thesis title:</i>
An Experimental Study on the Role of Collaboration in Productive Failure</p> |
| 10/2012 – 02/2017 | <p>Bachelor of Arts in Educational Research and English/American Studies, Ruhr-University Bochum, Germany</p> |

Academic Career

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| Since 07/2020 | <p>Research Scientist at Educational Psychology and Technology Research Group, Educational Research Institute, Ruhr-University Bochum, Germany</p> |
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- 01/2016 – 06/2020 **Student Research Assistant** Educational Psychology and Technology Research Group, Educational Research Institute, Ruhr-University Bochum, Germany
- 05/2014 – 08/2014 **Research Internship** at Educational Psychology and Technology Research Group, Educational Research Institute, Ruhr-University Bochum, Germany
- 04/2014 – 08/2014 **E-Tutor Internship** at Quantitative Research Methods Research Group (Dr. Katja Serova), Ruhr-University Bochum, Bochum

Grants and Scholarships

- 08/2025 **Scholarship of the German Academic Exchange Service (Deutscher Akademischer Austauschdienst, DAAD)** Covering travel expenses for international conferences: granted to attend conference of the European Association for Research on Learning and Instruction (EARLI) 2025 in Graz, Austria
- 06/2023 **Scholarship for the Doctoral Consortium** of the International Society of the Learning Sciences (ISLS) at the ISLS Annual Meeting 2023, Montreal, Canada
- 05/2022 **“PR.INT” Project International Research Abroad Grant** for doctoral students of the Ruhr University Bochum Research School: 3-months research project at the Harvard Graduate School of Education, Harvard University, Cambridge, MA, USA, supervised by Prof. Dr. Bertrand Schneider
- 05/2018 **“LabExchange” Research Abroad Grant** for graduate students (Ruhr University Bochum): 2-months research project at University of British Columbia, British Columbia, Canada, supervised by Prof. Dr. Ido Roll (Technion, Israel Institute of Technology, Israel)
- 10/2017 – 09/2019 **National Scholarship “Deutschlandstipendium”** for outstanding students with special social engagement (two funding periods)
- 08/2017 **Scholarship of the German Psychological Society (DGPs)** Covering travel expenses for young researchers with a conference contribution at the Joint Conference of the Sections Developmental Psychology & Educational Psychology (Paepsy 2017), Münster, Germany

Membership in Professional Organizations

Since 2023	Member [assoziertes Mitglied] of the German Psychology Society [<i>Deutsche Gesellschaft für Psychologie</i>] (DGPs) and Special Interest Group Educational Psychology [<i>Fachgruppe Pädagogische Psychologie</i>]
Since 2022	Member of the Special Interest Groups 6 and 7 of the European Association for Research on Learning and Instruction (EARLI SIG 6 & 7)
Since 2021	Member of the European Association for Research on Learning and Instruction (EARLI)
Since 2018	Member in the International Society of the Learning Sciences (ISLS)

Academic Services

Since 2025	Reviewer for the German Journal of Developmental and Educational Psychology (Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie, ZEPP)
Starting August 2025 Until August 2027	JURE (Junior Researcher) Coordinator of the Special Interest Group (SIG) 6 of the European Association for Research on Learning and Instruction (EARLI)
Since 2024	Reviewer for the International Educational Research Journal “Learning & Instruction”
October 2022 – October 2023	Student Government Representative for PhD students of the Graduate School of Educational Studies (GSoES) at the Ruhr University Bochum, Germany
July 2022 – August 2023	Member of the International Organizing Committee of the Junior Researcher (JURE) Conference of the European Association for Research on Learning and Instruction (EARLI) 2023

Since 2022	Conference Reviewer for the Conference of the Special Interest Groups (SIG) 6 & 7 of the European Association for Research on Learning and Instruction (EARLI)
Since 2022	Reviewer for the “PR.INT” Project International Research Abroad Program at Ruhr-University Bochum
Since 2021	Reviewer for the International Educational Research Journal “Instructional Science”
Since 2021	Conference Reviewer for the Junior Researcher (JURE) Conference of the European Association for Research on Learning and Instruction (EARLI)
Since 2021	Conference Reviewer for the Annual Meeting of the International Society of the Learning Sciences (ISLS)
July 2020 – July 2021	Member of the International Organizing Committee of the Annual Meeting of the International Society of the Learning Sciences (ISLS) 2021 & Social Communications Co-Chair

Teaching

Since 2022	Supervisor of theses in the Bachelor of Arts study program of the Institute of Educational Research, Ruhr University Bochum ($n = 3$)
Summer term 2021	„ <i>Individuelles Lernen und Problemlösen</i> “ (Individual Learning and Problem Solving), class for Master of Arts students, Institute of Educational Research, Ruhr-University Bochum; with Nikol Rummel
Winter term 2020/21, Summer term 2021, Winter term 2021/22	<i>Psychologische Lern- und Entwicklungstheorie im Überblick</i> “ (Psychological Theories on Learning and Development: An Overview), classes for Bachelor of Arts students, Institute of Educational Research, Ruhr-University Bochum

Publications

Brand, C., Loibl, K., & Rummel, N. (2025b). Prior knowledge activation as preparation prior to instruction: does the coverage of relevant prior knowledge affect

learning? *Instructional Science*. Advance online publication.

<https://doi.org/10.1007/s11251-025-09727-6>

Brand, C., Loibl, K., & Rummel, N. (2025a). Learning in Productive Failure: How Knowledge Gap Awareness and Intermediate Knowledge Link Prior Knowledge Activation and Conceptual Knowledge. In *Proceedings of the 19th International Conference of the Learning Sciences-ICLS 2025*, pp. 1052-1060. International Society of the Learning Sciences.

Brand, C., Hartmann, C., Loibl, K., & Rummel, N. (2025). Investigating Learner Characteristics and Processes in Productive Failure and Vicarious Failure to Design Adaptive Guidance. *Learning and Instruction*, 95, Article 102052. Advance online publication. <https://doi.org/10.1016/j.learninstruc.2024.102052>

Brand, C., Loibl, K., Rummel, N. (2024). Learning in Vicarious Failure: How Intermediate Knowledge Links Prior Knowledge Activation And Conceptual Knowledge. In Lindgren, R., Asino, T. I., Kyza, E. A., Looi, C. K., Keifert, D. T., & Suárez, E. (Eds.) *Proceedings of the 18th International Conference of the Learning Sciences - ICLS 2024* (pp. 578-585). Buffalo, USA: International Society of the Learning Sciences.

Brand, C. (2023). Prior Knowledge Activation in Problem Solving Prior to Instruction: How does the breadth of activation affect learning?. In Slotta, J. D. & Charles, E. S. (Eds.). *General Proceedings of the 3rd Annual Meeting of the International Society of the Learning Sciences 2023* (pp. 151-152). Montreal, Canada: International Society of the Learning Sciences.

Brand, C., Hartmann, C., Loibl, K., & Rummel, N. (2023). Do students learn more from failing alone or in groups? Insights into the effects of collaborative versus individual problem solving in productive failure. *Instructional Science*, 51(6), 953-976. <https://doi.org/10.1007/s11251-023-09619-7>

Brand, C., Hartmann, C., Loibl, K., & Rummel, N. (2021). Observing or Generating Solution Attempts in Problem Solving Prior to Instruction: Are the Preparatory Processes Comparable? In E. de Vries, J. Ahn, & Y.Hod (Eds.), *15th International Conference of the Learning Sciences – ICLS 2021* (pp. 115-122). International Society of the Learning Sciences, 2021.

Brand, C., Massey-Allard J., Perez S., Rummel N., Roll I. (2019). What Inquiry with Virtual Labs Can Learn From Productive Failure: A Theory-Driven Study of Students' Reflections. In Isotani, S. Millán E., Ogan A., Hastings P., McLaren B., Luckin R. (eds) *Artificial Intelligence in Education. AIED 2019. Lecture Notes in Computer Science*, vol 11626. Springer, Cham. https://doi.org/10.1007/978-3-030-23207-8_6

Brand, C., Hartmann, C., & Rummel, N. (2018). *Exploring relevant problem-solving processes in learning from Productive Failure*. In Kay, J. and Luckrin, R. (Eds.), *Rethinking Learning in the Digital Age: Making the Learning Sciences Count. Proceedings of the 13th International Conference of the Learning Sciences (ICLS) 2018*, Vol. 2, pp. 1125-1128. London, UK: International Society of the Learning Sciences, Inc.

Hartmann, C., Olsen, J. K., **Brand, C.**, Aleven, V., & Rummel, N. (2017). Examining Positive and Negative Interdependence in an Elementary School CSCL Setting. In Smith, B. K., Borge, M., Mercier, E., and Lim, K. Y. (Eds.). (2017). *Making a Difference: Prioritizing Equity and Access in CSCL, 12th International Conference on Computer Supported Collaborative Learning (CSCL) 2017*, Volume 2. Philadelphia, PA: International Society of the Learning Sciences.