

Manuel Ninaus

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Education

- 2012–2015 **PhD** in Neuropsychology / Dr. rer. nat. at University of Graz, Department of Psychology
- 2006–2012 **Master of Science** (Mag. rer. nat) in Psychology at University of Graz

Research Experience

- 04/2020–today **Project coordinator – Neurocognitive plasticity lab** at the IWM
- 07/2016–today **Affiliated Post-doc LEAD** Graduate School, University of Tübingen, Germany
- 07/2016–03/2020 **Postdoc researcher** at the IWM
- 09/2016 **Visiting researcher**, TUT Game Lab, Tampere University of Technology, Finland
- 01/2016–07/2016 **Postdoc researcher**, Department of Psychology, Section Developmental Psychology, University of Graz, Austria
- 07/2015–07/2016 **International affiliate LEAD** Graduate School, University of Tübingen, Germany
- 07/2015–12/2015 **Postdoc researcher**, Department of Psychology, Section Neuropsychology, University of Graz, Austria
- 07/2015–10/2015 **Visiting researcher** at the IWM
- 10/2010–06/2015 **Research fellow**, Department of Psychology, Section Neuropsychology, University of Graz, Austria

Academic Functions (Selection)

- Financial management of Postdoc Network: Cognitive Conflicts During Media Use,
- Member of the Program Committee, Games and Learning Alliance conference (2015 - 2020)
- Program Chair Games and Learning Alliance conference 2019
- Member of the editorial board of the International Journal of Serious Games
- Board Member of Serious Games Society

Third-Party Funding (last 5 years)

Ninaus, M., Golle, J., Trautwein, U., Pinkwart, N., Butz, M., & Moeller, K. (Principal Investigators, 2019-2020): Project funding “Coding to foster Computational Thinking through Playing & Creating: play - modify - create”, funded by Hector Stiftung II (107.914 EUR)

Ninaus, M. & Karnath, H.O. (Principal investigators, 2017-2020): Project funding “Benefits of a game-based cognitive interface for knowledge work – from basic effects and neural correlates to neuropsychological rehabilitation”, Co-Investigators: Klein, E. & Moeller, K., funded by Ministry of Science, Research and the Arts Baden-Württemberg within the LeibnizWissenschaftsCampus (WCT) 2.0 “Cognitive Interfaces” (168.933 EUR)

Awards and Honors

First prize at the 6th International Educational Games Competition, Tsarava, K., Leifheit, L., Moeller, K., & **Ninaus, M.** "Crabs & Turtles: A Series of Computational Adventures". ECGBL 2018, 4-5 October, Sophia Antipolis, France.

Best Paper Award, **Ninaus, M.**, Kiili, K., McMullen, J., Moeller, K. "A Game-Based Approach to Examining Students' Conceptual Knowledge of Fractions", International Games and Learning Alliance (GALA) Conference, Utrecht, Netherlands.

Honorary Award, **Ninaus, M.**, Science Slam "Your Brain on Games", Pori, Finland

Key Publications

Ninaus, M., Greipl, S., Kiili, K., Lindstedt, A., Huber, S., Klein, E., Karnath, HO., & Moeller, K. (2019). Increased emotional engagement in game-based learning – A machine learning approach on facial emotion detection data. *Computers & Education*, 142, 103641. <https://doi.org/10.1016/j.compedu.2019.103641>

Kiili, K., Moeller, K., & **Ninaus, M.** (2018) 'Evaluating the effectiveness of a game-based rational number training - In-game metrics as learning indicators', *Computers & Education*, 120, pp. 13–28. <http://doi.org/10.1016/j.compedu.2018.01.012>

Ninaus, M., Kiili, K., McMullen, J., Moeller, K. (2017) 'Assessing fraction knowledge by a digital game', *Computers in Human Behavior*, 70, pp. 197–206. <http://doi.org/10.1016/j.chb.2017.01.004>

Boyle, E. A., Hainey, T., Connolly, T. M., Gray, G., Earp, J., Ott, M., Lim, T., **Ninaus, M.**, Riberio, C., Pereira, J. (2016) 'An update to the systematic literature review of empirical evidence of the impacts and outcomes of computer games and serious games', *Computers & Education*, 94, pp. 178-192. <http://dx.doi.org/10.1016/j.compedu.2015.11.003>

Ninaus, M., Kober, S.E. Witte, M., Koschutnig, K., Neuper, C., Wood, G. (2015) 'Brain volumetry and self-regulation of brain activity relevant for neurofeedback', *Biological Psychology*, 110, pp. 126-133. <http://dx.doi.org/10.1016/j.biopsycho.2015.07.009>

Witte, M., **Ninaus, M.**, Kober, S.E., Neuper, C., Wood, G. (2015) 'Neuronal correlates of cognitive control during gaming revealed by near-infrared spectroscopy', *PLoS ONE*, 10(8). <http://dx.doi.org/10.1371/journal.pone.0134816>

Ninaus, M., Pereira, G., Stefitz, R., Prada, R., Paiva, A., Neuper, C., Wood, G. (2015) 'Game elements improve performance in a working memory training task', *International Journal of Serious Games*, 2(1). <http://dx.doi.org/10.17083/ijsg.v2i1.60>

Ninaus, M., Kober, S.E., Friedrich, E.V.C., Dunwell, I., deFreitas, S., Arnab, S., ... , Neuper C. (2014) 'Neurophysiological methods for monitoring brain activity in serious games and virtual environments: A review', *International Journal of Technology Enhanced Learning*, 6(1), pp. 78-103. <http://dx.doi.org/10.1504/IJTEL.2014.060022>

Ninaus, M., Kober, S.E., Witte, M., Koschutnig, K., Stangl, M., Neuper, C., Wood, G. (2013) 'Neural substrates of cognitive control under the belief of getting neurofeedback training', *Frontiers in Human Neuroscience*, 7:914. <http://dx.doi.org/10.3389/fnhum.2013.00914>

Teaching / Supervisor Experience

PhD Supervisor – Simon Greipl at the Leibniz-Institut für Wissensmedien "Behavioural, emotional, and neurofunctional correlates of game-based learning" (2017-present)

"Innovative Education: Psychology, neuroscience, and assessment in (serious) games", Game Based Media & Education - Master of Science, Danube University Krems, Austria (3 ECTS)

"Innovative Education: Psychology, neuroscience, and assessment in games", Game Studies - Master of Arts, Danube University Krems, Austria (4 ECTS)

Co-Supervision of multiple Master Theses (e.g., Zaiser, Gabriela; Wiesen, Daniel; Angelika Stiegler; René Stefitz), University of Graz, Austria (2015-2016)