

Full list of publications

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Journal articles (peer-reviewed)

- van Leeuwen A., **Strauß S.**, and Rummel N. (2023). Participatory design of teacher dashboards: navigating the tension between teacher input and theories on teacher professional vision. *Frontier in Artificial Intelligence*, 6:1039739. [doi: 10.3389/frai.2023.1039739](https://doi.org/10.3389/frai.2023.1039739)
- Kubsch, M., Czinczel, B., Lossjew, J., Wyrwich, T., Bednorz, D., Bernholt, S., Fiedler, D., **Strauß, S.**, Cress, U., Drachsler, H., Neumann, K., and Rummel, N. (2022). Toward learning progression analytics — Developing learning environments for the automated analysis of learning using evidence centered design. *Frontiers in Education*, 7:981910. <https://doi.org/10.3389/feduc.2022.981910>
- Strauß, S.**, & Rummel, N. (2021). Promoting regulation of equal participation in online collaboration by combining a group awareness tool and adaptive prompts. But does it even matter? *International Journal of Computer-Supported Collaborative Learning*, 67–104. <https://doi.org/10.1007/s11412-021-09340-y>
- Strauß, S.**, & Rummel, N. (2020). Promoting interaction in online distance education: designing, implementing and supporting collaborative learning. *Information and Learning Sciences*, 121 (5/6), 251–260. <https://doi.org/10.1108/ILS-04-2020-0090>
- Strauß, S.**, & Rummel, N. (2019). Online-gestützte Hochschullehre. Gestaltung von Maßnahmen für virtuelle Kleingruppenarbeit. *Weiterbildung*, (6), 36–39.

Contributions to collected volumes

- Strauß, S.**, & Rummel, N. (2023). Feed-Back About the Collaboration Process from a Group Awareness Tool. Potential Boundary Conditions for Effective Regulation. In O. Noroozi & B. De Wever (Eds.), *The power of peer learning: Technology-supported peer feedback and peer assessment to foster students' learning processes and outcomes*, Springer, Cham. (pp. 183–213) https://doi.org/10.1007/978-3-031-29411-2_9
- Strauß, S.**, & Rummel, N. (2023). Computer-Supported Collaborative Learning: Die Rolle des Digitalen bei der Unterstützung von kooperativem Lernen. In S. Aßmann & N. Ricken (Hrsg.), *Bildung und Digitalität*. Springer VS, Wiesbaden (pp. 127-164). https://doi.org/10.1007/978-3-658-30766-0_6

Contributions to conference proceedings (with peer-review)

- Eberle, J., Hobrecht, Joyce, **Strauß, S.**, Tunnigkeit, I., vom Bovert, L. F., Avdullahu, A., Schmittchen, M., & Rummel, N. (2023). A reality check on collaboration skills: How experiences during interdisciplinary collaboration shape collaboration self-efficacy. In Damsa, C., Borge, M., Koh, E., & Worsley, M. (Ed.), *Proceedings of the 16th International Conference on Computer-Supported Collaborative Learning - CSCL 2023* (pp. 388–389). International Society of the Learning Sciences.

- Strauß, S.**, Tunnigkeit, I., Eberle, J., vom Bovert, L. F., Avdullahu, A., Schmittchen, M., & Rummel, N. (2023). Differential effects of a script and a group awareness tool on the acquisition of collaboration skills. In Damsa, C., Borge, M., Koh, E., & Worsley, M. (Ed.), *Proceedings of the 16th International Conference on Computer-Supported Collaborative Learning - CSCL 2023* (pp. 75–82). International Society of the Learning Sciences. (**nominated for best-paper award**)
- Kubsch, M., **Strauß, S.**, & Bernholt, S. (2023). Integrating perspectives to promote knowledge integration: How knowledge integration, learning progressions and instructional science can complement each other. In Blikstein, P., Van Aalst, J., Kizito, R., & Brennan, K. (Ed.), *Proceedings of the 17th International Conference of the Learning Sciences - ICLS 2023* (1898.1899). International Society of the Learning Sciences. Poster presented at the 17th International Conference of the Learning Sciences - ICLS 2023.
- Tunnigkeit, I., vom Bovert, L.F., Eberle, J., **Strauß, S.**, & Rummel, N. (2022). Development of an instrument to assess the quality of collaboratively constructed notes. *Poster presented at the 15th International Conference on Computer-Supported Collaborative Learning - CSCL 2022*. In A. Weinberger, W. Chen, D. Hernández-Leo, & B. Chen (Eds.), *Proceedings of the 15th International Conference on Computer-Supported Collaborative Learning - CSCL 2022*. Hiroshima, Japan: International Society of the Learning Sciences, p. 567-568.
- Strauß, S.**, Eberle, J., Tunnigkeit, I., vom Bovert, L. F., Schmittchen, M., Avdullahu, A., & Rummel, N. (2022). Training those who build bridges: Fostering interprofessional collaboration skills with collaboration scripts and group awareness tools. In A. Weinberger, W. Chen, D. Hernández-Leo, & B. Chen (Eds.), *Proceedings of the 15th International Conference on Computer-Supported Collaborative Learning - CSCL 2022*. Hiroshima, Japan: International Society of the Learning Sciences, p. 520-521.
- Strauß, S.**, Eberle, J., Tunnigkeit, I., vom Bovert, L. F., Schmittchen, M., Avdullahu, A., ... & Rosé, C. (2022). Learning to Build Bridges: Promoting Skills for Complex Collaboration Across Professional and Cultural Boundaries. Symposium conducted at the 15th International Conference on Computer-Supported Collaborative Learning - CSCL 2022. In A. Weinberger, W. Chen, D. Hernández-Leo, & B. Chen (Eds.), *Proceedings of the 15th International Conference on Computer-Supported Collaborative Learning - CSCL 2022*. Hiroshima, Japan: International Society of the Learning Sciences, p. 517-524.
- Strauß, S.**, & Rummel, N. (2021). Problematic interaction patterns during online-collaboration. A library and a survey. In C. E. Hmelo-Silver, B. de Wever, & J. Oshima (Chairs), *Proceedings of the 14th International Conference on Computer-Supported Collaborative Learning - CSCL 2021*, Bochum. (**nominated for best-paper award**)
- Strauß, S.**, & Rummel, N. (2020). Does coercing the use of a group awareness tool help groups achieve more equal participation? In M. Gresalfi & I. S. Horn (Eds.), *The Interdisciplinarity of the Learning Sciences: 14th International Conference of the Learning Sciences (ICLS) 2020* (2615-2616). Nashville, Tennessee.
- Strauß, S.** (2019). Implicit guidance, explicit guidance, or both? Examining the differential effects of collaboration prompts and group awareness tools on students' regulation of online collaboration. In K. Lund, G. Niccolai, E. Lavoué, C. Hmelo-Silver, G. Gweon & M. Baker (Eds.), *A Wide Lens: Combining Embodied, Enactive, Extended, and Embedded Learning in Collaborative Settings: 13th International Conference on Computer Supported Collaborative Learning (CSCL)*, Volume 2 (pp. 1098-1099). Lyon, France: International Society of the Learning Sciences.
- Strauß, S.**, Rummel, N., Stoyanova, F., & Krämer, N. (2018). Developing a library of typical problems for collaborative learning in online courses. In J. Kay & R. Luckin (Eds.), *Rethinking Learning in the Digital Age: Making the Learning Sciences Count, 13th International Conference of the Learning Sciences (ICLS) 2018*, Volume 2 (pp. 1045-1048). London, UK: International Society of the Learning Sciences.

Fyrbiak, M., **Strauß, S.**, Kison C., Wallat, S., Elson, M., Rummel, N., & Paar, C. (2017). Hardware reverse engineering: Overview and open challenges. *IEEE 2nd International Verification and Security Workshop (IVSW)*, 88 – 94.

Doctoral thesis

Strauß, S. (2021): Does a combination of a social group awareness tool and explicit guidance help overcome unequal participation? (Doctoral thesis, Ruhr-University Bochum). <https://doi.org/10.13154/294-8453>

Presentations & Symposia (without publication)

Strauß, S. & Rummel, N. (2023, August). Boundary conditions for leveraging group-level feedback for regulation of collaborative learning. *Paper presented at the 20th Biennial Conference (EARLI 2023)*, Thessaloniki, Greece.

Tunnigkeit, I., **Strauß, S.**, Eberle, J., Avdullahu, A. & Rummel, N. (2023, August). Fostering computer-supported collaboration knowledge and interaction through scripting and awareness. *Paper presented at the 20th Biennial Conference (EARLI 2023)*, Thessaloniki, Greece.

Küplüce, C. & **Strauß, S.** (2021, November). Learning Analytics: Zugzwang für die Lehrer:innenbildung oder Zukunftsmusik? *Panel discussion at the Dialogkonferenz 2021, Ruhr-University Bochum*.

Strauß, S. & Rummel, N. (2021, September). Ungleichmäßige Beteiligung in Online-Kleingruppenarbeit. Unterstützung der Regulation mit einer Kombination aus Group-Awareness Tool und Prompts. In L. Schnaubert (Chair), *Awareness Tools beim digitalen Lehren und Lernen*, Symposium conducted at the 18th Joint Conference of the Sections Developmental Psychology & Educational Psychology (paEpsy 2021), Heidelberg, Germany.

Strauß, S. & Rummel, N. (2019, September). Unterstützung der Beteiligungsregulation in Online-Kleingruppenarbeit durch ein Group Awareness Tool und adaptive Prompts. Eine sequenzanalytische Exploration. In H. Bellhäuser (Chair), *Kooperatives Lernen in der online-gestützten Hochschullehre: Interventionen zur Verbesserung von Gruppenformation, Wissens-ko-konstruktion und Group Awareness*. Symposium conducted at the 17th Joint Conference of the Sections Developmental Psychology & Educational Psychology (paEpsy 2019), Leipzig, Germany.

Strauß, S. & Rummel, N. (2019, February). Konkrete Handlungsanweisungen oder Informationen zum aktuellen Zustand der Kooperation: Welche Form der Unterstützung braucht Kleingruppenarbeit in der online-gestützten Hochschullehre? In H. Bellhäuser (Chair), *Kooperatives Lernen in der online-gestützten Hochschullehre: Interventionen zur Verbesserung von Gruppenformation, Wissens-ko-konstruktion und Group Awareness*. Symposium conducted at the 7. Tagung der Gesellschaft für Empirische Bildungsforschung (GEBF), Köln, Germany.

Invited talks

Strauß, S. (2023, March). Kooperatives Lernen und Arbeiten. Begriffliche Fassung und empirische Befunde für Lern- und Arbeitssettings in Betrieben. *Presentation and discussion at the 6. Treffen des DIALOG-Praxisnetzwerk für Wissenstransfer und Innovation des Deutschen Instituts für Erwachsenenbildung (DIE)*.

Strauß, S. (2022, October). Kooperatives Lernen in Online-Gruppen unterstützen: Implizit, explizit, oder beides? *Invited presentation at the Nachwuchskolloquium of the Center of Advanced Technology for Assisted Learning and Predictive Analytics (CATALPA), FernUniversität Hagen, Germany*.

Public outreach

Podcasts (in German)

Rummel, N. & **Strauß, S.** (July 19, 2023). Was macht die KI im Klassenzimmer? Von der Forschung über Bildungstechnologien [What is AI doing in the classroom? From research on educational technologies] [audio podcast episode]. In *CAISzeit, episode 14*. <https://www.cais-research.de/en/news/what-is-ai-doing-in-the-classroom-from-research-on-educational-technologies-guest-prof-dr-nikol-rummel-and-dr-sebastian-strauss/>

Eberle, J. & **Strauß, S.** (June 05, 2023). Kooperatives Lernen [Collaborative Learning] [audio podcast episode]. In *potenziaLLL, episode 26*. <https://wb-web.de/aktuelles/26-podcast-online-kooperatives-lernen.html>

Open Educational Resources (OER)

Tunnigkeit, I., Rummel, N., Eberle, J., **Strauß, S.**, Avduallahu, A., König, M., Block, M., Herrmann, T. & Schmittchen, M. (September 19, 2023). Digitale Kooperationskompetenz fördern: Ein Leitfaden für Lehrende [Fostering digital collaboration competence. A guide for teachers]. <https://www.orca.nrw/content/6306c8b8-45b6-4599-bd78-15618adcc053>