Boundary conditions for effective learning and teaching with technology

At the latest, the decision on the DigitalPakt and the need for "digital home schooling" during the Corona pandemic have generated an intensive demand for scientific findings on teaching and learning with digital media among representatives of educational practice and policy makers. The presentation will illustrate an agenda of application-oriented basic research that attempts to address this demand. I will present research from three areas related to relevant boundary conditions for successful learning and teaching with digital media: (1) a design of digital media tailored towards relevant learning processes, (2) the orchestration of digital media in the classroom, and (3) competencies of (prospective) teachers regarding technology-enhanced teaching. Finally, empirical and theoretical desiderata are discussed.

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