Research in the field of self-regulated learning reveals that many learners have difficulties in performing strategic and metacognitive activities, such as analysing, planning, monitoring, and evaluating, in effect resulting in lower learning outcomes. Hence, the key purpose of this research is to find appropriate scaffolding for metacognitive reflection when learning with modern computer-based learning environments. It is assumed that prompting students for metacognitive reflection will affect the learning process by engaging students in more metacognitive behaviour leading to better learning performance. Design and major results from three experiments where students of the experimental groups were supported by different metacognitive prompting measure are described. The results of learning processes and outcomes confirm the positive effects of all three support measures. However, their specific influence varies significantly in size. Implications for the design of metacognitive support to improve self-regulated learning with CBLEs are discussed.

Bio

Maria Bannert is a Professor of Educational Media at the Chemnitz University of Technology, Germany. Her research focuses on self-regulated hypermedia learning, its integration with theories of metacognition, cognitive load and motivation, its empirical based description, and intervention models for successful application in real life settings.