TRAINING OF LEARNING PROCESSES

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Education can be considered as one of the highest goods of our society. Educational processes take place in all ages, content areas, contexts, and institutions. In particular, kindergarten and schools explicitly pursue an educational mission and make a significant contribution to education within society. However, educational processes of course not always take place without difficulties. Especially when learning is hindered and delayed, questions and the call for intervention strategies are raised. An important quality criteria for meaningful interventions is their sustainability.

This symposium will deal with various questions of intervention. All four contributions aim to support learning and use empirically evaluated trainings. The focus will be on different age groups, but also different content areas and ways of knowledge transfer.

The first study is an experimental-control group-design based on a developmental model of arithmetic concepts. The authors designed a playful intervention that integrates the aspects of a usual memory game with numerical instruction. Up to 20 objects or pictures are presented in different structures that allow their recognition without counting (cf. McCandliss et al., 2010).

The second paper provides a first introduction to eLea and shows how the use of technology can support assessment-based personalization of learning. eLea provides an easy-to-use online platform with built-in task-writing and editing modules.

The third presentation gives a study of the efficacy of a computer-based cognitive training program. The authors want to enhance the inductive reasoning of students of fourth (N=57) and fifth (N=61) graders by means of technology. The training is based on Klauer's theory of inductive reasoning (Klauer, 1989) and consists of 120 online problems which can be solved through inductive reasoning.

The fourth paper presents first results of a study based on the 'Response to Intervention' (RTI)-approach. The study design is an experimental-control group-design (2x2 schools per project year). The study presented here focusses on the arithmetic initial tuition of the first year of this project.