This research was supported by the Cluster of Excellence Cognitive Interaction Technology CITEC (EXC 277) at Bielefeld University, which is funded by the German Research Foundation (DFG).

PILOT STUDY
• In a first step, we investigated the influence of different types of augmented feedback during observational practice in a virtual reality environment
• Specifically, we interested in the impact of various types of real-time visual feedback on participants’ motor performance and cognitive representation structure of the squat
• In a pilot study, we compared an ‘own avatar’ condition (i.e., mirrored action) to an ‘own avatar plus ghost’ condition (i.e., mirrored action plus ghost action)

REAL-TIME FEEDBACK
• Novices were assigned to one of two conditions
• Own avatar condition: Whilst executing the squat, participants observed their own avatar performing their own movement in a virtual mirror
• Own avatar plus ghost condition: Whilst executing the squat, participants observed their own avatar performing their own movement plus an avatar of a skilled person performing a correct squat, superimposed on their own avatar, in a virtual mirror

PRELIMINARY RESULTS
Preliminary results showed a trend for the own avatar plus ghost group to outperform the own avatar only group in both motor performance and cognitive representation structure of the squat

REFERENCES
"The main objective of this line of research is to examine the impact of different non-verbal feedback strategies during observation (with and without imagery) on coachee’s cognitive representation and motor performance of a complex motor action in early skill acquisition"