Living at home with adequate care is a key objective for persons with dementia. Most therapies exclusively stimulate cognitive processes but studies clarified that locomotion and social activity positively impacts dementia, challenging is daily motivation to exercise.

In the projects AktivDaheim and PLAYTIME, a serious game is developed for multimodal training performed by caregivers and clients. Key element is interactive mat sensing about board game type interaction at social events of people with dementia. Sensed data provide indications for tuning of weekly playful training sessions at home facilitated by informal carer using easily configurable services on a Tablet PC. The AktivDaheim/PLAYTIME game and its sensing diagnostic toolbox offer affordances for entertaining, measuring and analysis of behavioral parameters, to enable people with dementia to stay longer at home and slowing down the progress of disease.

In a 6 month study 3 groups with each 25 participants living with dementia (cut-off: >MMSE 21) were compared. The intervention group had training with a tablet, one control group received conventional MAS training once a week and the second control group didn’t receive any intervention. A neuropsychological test battery examined the cognitive status of the participants (MMSE, clocktest compared with the control groups, trail making test, go/no go task for inhibition). The results show that the intervention group scored significantly better than both control groups regarding to the short term memory and the time-based orientation.

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