



# Trauma Therapy in VR – Designing Exposure Scenarios to Help People

## Open Bachelor/Master Thesis

### Background

About 6,8% of the population suffers from post-traumatic stress disorder (PTSD). 60,7% of the male population and 51,2% of the female population experience at least one potentially traumatic event during their life. Suffering from PTSD can impair quality of life significantly. Stressful flashbacks can be triggered by a variety of stimuli in daily life. Hence persons concerned often have increased avoidance and dissociation to protect themselves. Exposure therapy has been shown to be successful in reducing the severity of PTSD significantly. By reliving traumatic events, patients can learn to deal with flashbacks. VR provides a cost-efficient and flexible possibility to conduct such exposures. Scenarios can be designed individually and repeated any number of times.

### Research Goal

Goal of the thesis is to develop a system that reduces the dropout rate in the therapy of childhood sexual abuse. The system should allow the creation of customized children's rooms together with the patient. Based on his description, the therapist will recreate his room. Aside from regular construction on the desktop, a solution shall be developed that allows joined room design in VR. In a subsequent study, the effects of the different approaches on dropout rate and stress shall be investigated and compared.

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