

# Rehabilitation of targeted daily life competences as situated learning

## Intensive rehabilitation of patients with severe traumatic brain injury

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### Aim

To elucidate requirements to the physical and psychical learning environment to facilitate the learning of life skills at the end of the post-traumatic amnesia (PTA) phase after severe traumatic brain injury.

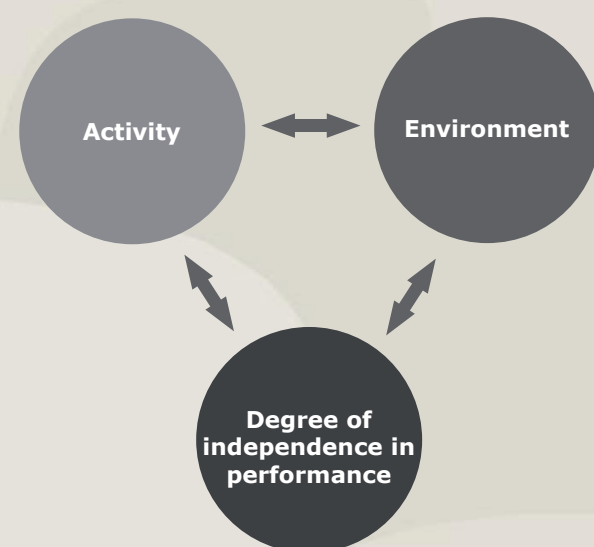
### Introduction

- Annually, about 7500 people sustain a traumatic brain injury (TBI) in Denmark. According to Danish and international experiences, 250 of these are severe injuries defined as a Glasgow Coma Scale [GCS] score of 3-9.
- Of these about 120 people, often males, need highly specialised neurorehabilitation at one of the two regional centres in Denmark.
- The group of patients with severe traumatic brain injury is inhomogeneous, and their injuries often involve disturbances in physical abilities and language, lack of realisation, reduced initiative, tiredness, depression, and emotional or behavioural changes.

### Rehabilitation as learning

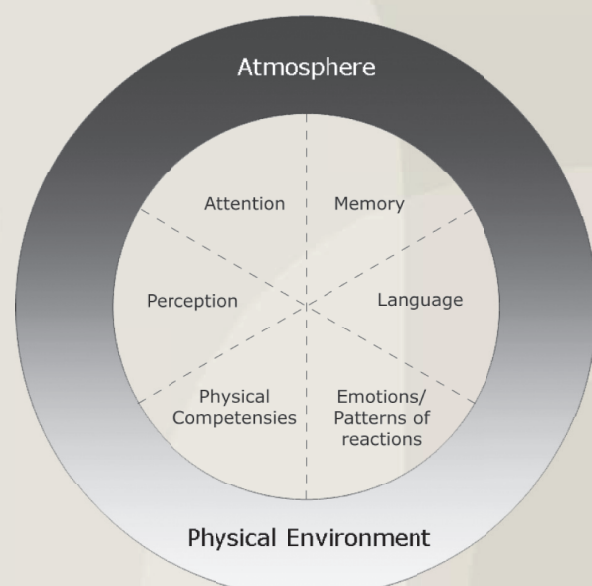
If taken for granted that patients with severe brain injury have special competencies to learn, and that the overall objective of intensive highly specialized neurorehabilitation is that the patient obtains an independent and meaningful everyday life by learning lost skills that target levels of function, activity, and participation (WHO 2003), then the pedagogic challenge contains two levels: To regain or compensate for changed learning competencies and to learn or compensate for changed everyday life competencies.

### Enabling patient to participate in daily life activities



Key components to adjust complexity to promote participating and learning of daily life activities

### Providing a rehabilitation context conducive of learning life skills



Each category constitutes different challenges for providing complexity that includes patients in the practice-community

### Theoretical framework

Lave and Wenger's theory, "Situated learning", is inspired by Lev Vygotskij. Lave and Wenger see learning as a relational process developed between subjects in social practice. To learn is not a passive internalisation of existing knowledge but includes the whole person. Competencies to learn are inborn but a severe TBI can change both the competencies involved in the learning process and the ability to take part in social practise. To work with rehabilitation as learning makes it necessary to determine the special learning competencies of patients with severe TBI.

### Method

Systematic analysis of relevant learning theory and neuropsychological research in order to identify compromised learning competencies of TBI patients and consequent requirements of learning environment to facilitate learning of life skills. Development of a theoretical model to facilitate the acute rehabilitation process.

### Pre-liminary results

Patients with severe TBI face significant challenges when trying to regain life skills necessary for living a meaningful life. Six main categories of compromised competencies were identified: Perception, attention, memory, language, physical competencies and emotion/model of behaviour. Each category results in different challenges that the interdisciplinary rehabilitation team must address in order to provide a physical and psychosocial rehabilitation context conducive of learning life skills.