TBI Patient Rehabilitation Application Design

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Apr. 9, 2010

Impairment level tested for TBI patients

- Attention
- Memory
- Executive control
- Constructional praxis
- Motor Skill
- Language
Determinants of ROCF performances are multifactorial and reflect integrated contributions of many neurocognitive functions [1]
- perceptual apprehension
- attention and control
- visual mnestic power
- long-term spatial memory
- visual and perceptual organization
- visual-constructive function
- motor functioning and memory
- planning and organization
- graphomotor coordination

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Test–Training Validation

<table>
<thead>
<tr>
<th>TBI patient Impairment</th>
<th>ROCF Test</th>
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<tbody>
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Rehabilitation Training Task

- Cover determinants of ROCF performance
- Enforced repetitive motor skill training

Pre-Test → Training → Post-Test

Task Scenario 1

- perceptual apprehension
- visual and perceptual organization
- visual-constructive function
- attention and control
Task Scenario 2

- visual mnestic power
- long-term spatial memory
- Size
  - None of the cylinder is right candidate here, size difference
- Shape
  - Triangle shape doesn’t match
- Depth
  - Blind hole vs. non-blind hole
Scenario 3

- planning and organization
- graphomotor coordination
- motor functioning and memory

- Picking and Fitting of the existing shapes
- Draw the shape and build block

Picking and fitting of the existing shapes

![Image of shapes being fitted]
Draw and Fit
Reference


› Bernstein, J. H. Waber, D. P.: "Developmental scoring system for the Rey–Osterrieth Complex Figure," *Odessa, FL: Psychological Assessment Resources*, 1996.
