A *priori* defined approach

**Conceptual level**

Critical evaluation of items relative to a pre-defined framework

*Here: Self-reported capacity to perform activities based on the ICF*

**Rasch analysis**

Identification of misfitting items, and exploration of cause of misfit

*Here: DIF, disordered response thresholds, location dependence, multidimensionality, statistical redundancy*

**Classical test theory**

Establish properties of shortened scale with CTT-based approaches

*Here: Stability, responsiveness, concurrent validity*

**Result**

Removal of 3 items

- Pain intensity
- Headaches
- Sleeping

Removal of 2 items

- Reading (due to considerable DIF)
- Lifting (due to statistical redundancy)

**NDI-5: Excellent fit to Rasch model**

**Properties of NDI-5 based on CTT statistically similar to those of original NDI-10.**