

Title: Developing the Occupational Self Assessment: The use of Rasch analysis to assure internal validity, sensitivity and reliability

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Major Finding: A series of three iterative studies demonstrate that the Occupational Self Assessment (OSA) can be used as a valid, sensitive, and reliable measure of occupational competence and value for occupational performance and participation.

Participants:

- Study One: n= 512
 - 274 female, 238 male; 257 persons without disabilities, 121 medical conditions, 82 psychiatric impairments, 52 physical impairments; 415 USA, 63 Finland, 10 Japan, 24 Sweden
- Study Two: n= 86
 - 68 female, 18 male; 34 persons without disabilities, 52 persons with Multiple Sclerosis; all USA
- Study Three: n= 542
 - 61.3% female, 38.7% male; Ages 17– 86, mean age 47.7 years
 - 76% USA, 21% Sweden, 3% UK/Canada
 - 73% Caucasian, 15% African American, 4% Hispanic, 8% Asian/Multiracial/Other

Method: Participants in each study completed the OSA. Some participants used a translated version.

Analysis: Rasch analysis using Winsteps software.

Findings:

- Study One: The three point rating scale was still not used appropriately by participants for the “Myself” items; analysis of the environmental items did not result in adequate separation and reliability needed to ensure accurate measurement and items were dropped from further analysis.
- Study Two: Revised four point rating scales were still not used appropriately by participants; a pilot study was conducted to test several revised rating scale categories.
- Study Three: Items met Rasch requirements for fit on both scales (1 misfitting competence item), and item hierarchies replicated previous studies; 90% of participants fit Rasch requirements; revised four point rating scale resulted in adequate separation and reliability.

Conclusion: Over the three studies, the OSA was revised until there was evidence that the self report has good internal validity, is adequately sensitive and reliable in distinguishing between levels of persons, and can be used in a reliable manner by the vast majority of participants. The OSA can be used by individuals with a range of impairments and across a range of practice contexts to assess an individual’s occupational competence and value for performance and participation.

Implications for future research: Future research should examine the ability of the scales to detect change when they are re-administered and the stability of the item hierarchies over re-administration.

Evidence– based practice implications:

- **Items are a valid measure of occupational competence and value for participation for persons across cultural and practice contexts.**
- **Stable values hierarchy suggests common values for everyday occupations similar to Maslow’s hierarchy of needs.**

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