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# Research on assessment methods of work ability

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# Topics

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- Terms
- What is work ability?
- Assessments
- Research methods
- Final remarks

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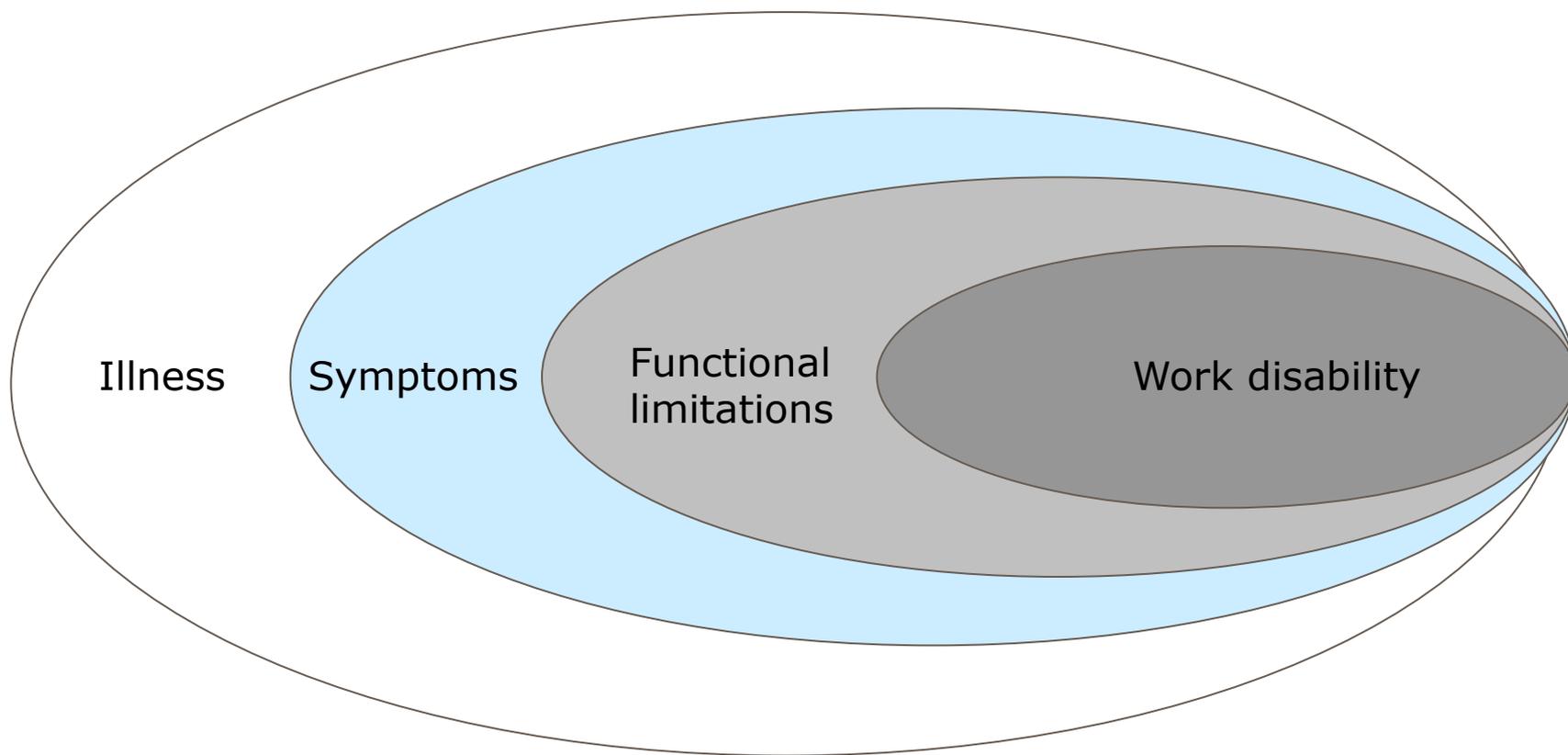
# Term clarification

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- Work ability
- Work capacity
- Work capability
- Functional ability/capacity/capability

# "The work ability chain"

Source: SOU 2008:66



## Definition

- A person  $P$  has complete work ability if, and only if,  $P$  has the work specific manual and intellectual **competence**, **strength**, as well as **tolerance** and **courage**, relevant **virtues**, other **qualifications** and has the physical, mental and social **health** that is required to fulfil the **tasks** (or alternatives within a set of tasks) and reach the **goals** (with some requirements of quality) which belong to the job in question, given that the physical, psychological, and organizational work **environment** is acceptable to  $P$ , or can with adjustments easily be made acceptable to  $P$

– Nordenfelt. L. *The concept of work ability*, 2008, p 137.

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## Individual, work and environment

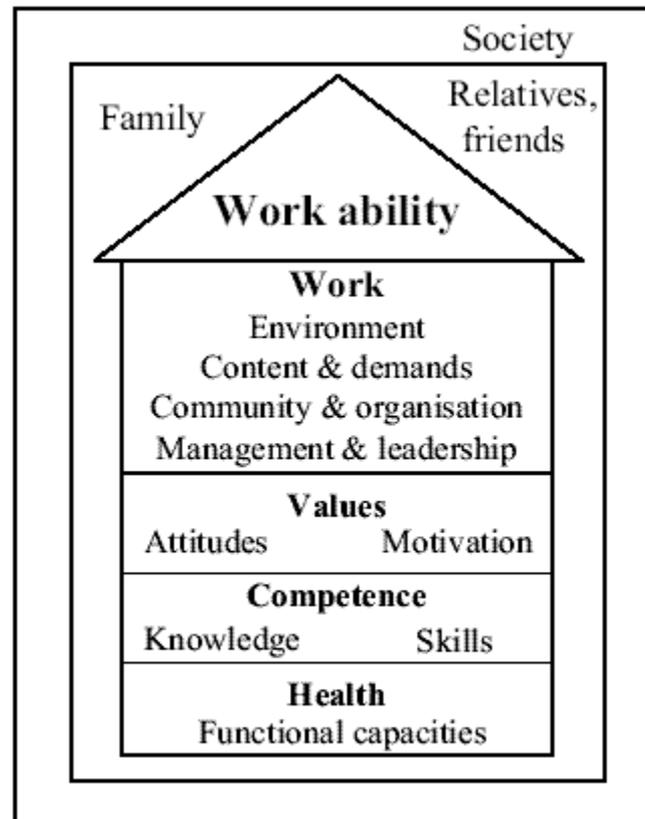
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- "There seem to be consensus that work ability cannot be analysed solely according to the characteristics of the individual. Work and the environment must also be taken into consideration"

Ilmarinen: Dimensions of Work Ability

# Fig. Dimensions of work ability

Source: Ilmarinen 2008



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# The work content

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- Anselm Strauss: Social Organization of Medical Work
- Complexity of treatment work in hospital wards:
  - Machine work
  - Safety w.
  - Comfort w.
  - Sentimental w.
  - Articulation w.

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# Medical research on work ability

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- Occupational health: the epidemiology of work disability
  - Predictive instruments
- Rehabilitation: The treatment of work disability
  - Evaluating
- Social security: the medico-legal context (the decision)
  - Discriminatory

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## Finnish work ability index (WAI)

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- Used since the 1970's
- Finnish Institute of Occupational Health
- Screening and research instrument
- Research area
  - Occupational health
  - Public health
- A good predictive instrument, with good properties
- It is not discriminatory

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## The instrument

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- Current work ability compared with lifetime best (0-10)
- Work ability in relation to demands of the job (2-10)
- Number of current diseases (1-7)
- Estimated work impairment due to disease (1-6)
- Sick leave last year (1-5)
- Own prognosis of work ability in two years (1-5)
- Mental resources (1-4)
  
- Scores: Poor (27), moderate (36), good (43), excellent (49)
- Used in clinical work (prediction in aging workers) and epidemiology

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# Health 2000 Survey

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- Representative sample of Finnish adults (n=5,199)
- Interview and questionnaire
- Results
  - Well-educated persons have better work ability
  - Psychoses and CHD affect work ability strongest
  - Functional incapacity had strong relation to work ability
  - Competence, work motivation, mental strain related to work ability
  - Health, functional capacity, work characteristics were most important
  - Unemployment lowers work ability
  - Self-reported work ability has improved from 1978 to 2000, and is related to change in educational structure

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## Work ability in rehabilitation

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- Frequently used as an outcome variable. "Is work ability restored?"
- Work ability cannot be measured directly
- Proxies are used, such as
  - Self-reported inability to work
  - Functional status (many clinical instruments)
  - Employment status (working?)
  - Disability benefits
- Evident short-comings of proxies

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# Functional assessments in vocational rehabilitation

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- ICF Research Branch of WHO
- Objective
  - To develop a Generic Core Set for vocational rehabilitation based on ICF
- Methods
  - Preparatory phase
    - (1) systematic review of the literature
    - (2) worldwide survey of experts
    - (3) cross-sectional study
    - (4) focus group interview.
  - Consensus conference
    - to determine the ICF categories
  - Final phase
    - validation studies

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## Work ability assessments in social security

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- In social security, only limitations due to ill health/loss of functional capacities, are accepted as ground for benefit
- Assessments focus on functional capacities and health-related work ability

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# Aims for work ability assessments

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- Benefit decisions
  - Disability and incapacity benefits, sick leave, including grading
  - Focus on deficits and loss of work ability
  - Limited - according to legal requirements
- Guidance
  - Return to work, rehabilitation, job matching
  - Focus on resources, remaining work ability, compensatory mechanisms
  - Comprehensive
- (Evaluation
  - Follow-up of clients
  - Effective measures)
- It is difficult to combine two aims in one assessment

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## Methods for the assessment

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- Assisted by instruments (UK; NI; Sw)
  - Self assessment
  - Expert assessment
- Purely clinical assessment (No; Dk)
- Short term absence (up to ½ - 2 years)
  - Mainly purely clinical assessment, but guidelines are common
- Long term absence
  - Assistance by instruments and guidelines is fairly common

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# Clinical assessments for short term absence

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- Research on decisions on short term sickness certification
  - Interviews and focus groups
  - Surveys
  - Observation
  - Case studies
  - Register studies
  
- Reiso: Work ability and sickness absence - A follow-up study in general practice (2004). PhD thesis. University of Oslo.
  
- Results
  - Patients and doctors concur on work ability assessments in the start
  - Patients rate their work ability lower when physical or mental strains at work
  - Doctors rate the patient's work ability lower when supported by clinical findings

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## Instrument assessment in long term absence

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- Impairment assessments: AMA guides
- Functional assessment: WCA, FML, SLU, Norfunk
  
- Work capability assessment (WCA) 2008
- PCA 1991
- All applications for disability benefits in UK
- 21 areas of functional capacities (11 physical; 10 mental)
- Descriptors 0-15 points
- Eligibility: minimum 15 points

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# Descriptors

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## Reaching

- (a) Cannot raise either arm as if to put something in the top pocket of a coat or jacket. 15
- (b) Cannot put either arm behind back as if to put on a coat or jacket. 15
- (c) Cannot raise either arm to top of head as if to put on a hat. 9
- (d) Cannot raise either arm above head height as if to reach for something.  
6
- (e) None of the above apply. 0

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# Research

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- Limited studies on reliability and validity
- Qualitative studies engaging expert groups, stakeholders. Is WCA valid, relevant, reliable, feasible?
- Hardly a scientific approach – but can it be? Are questions on functional areas, normality and weight scientific?
- It is unclear what research can contribute

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# Work ability assessments – qualitative research

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- To identify new and problem areas
  - To explore the decision process
  - To explore practice
  - Stakeholder's views and attitudes
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- Group interviews
  - Narratives
  - Document studies

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# Summary

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- Complex field
- Psychology, sociology, medicine, economics, philosophy...
- Both qualitative and quantitative research is necessary
- Research is still in an early stage: nomenclature and classification
- Not a large research field (yet)
- Priorities:
  - Reviews
  - Population studies on work ability
  - The relationship between functional abilities and work ability
  - Longitudinal studies

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