

Psychotechnical evaluation of railway workers

Dr. Ellis Buyens

idewe
OPTIMISING WORK ENVIRONMENTS

Framework

- Belgian Railway Code Act
  - All railway workers in safety critical jobs
  - Declared psychologically fit by an occupational psychologist
  - Assessment of key cognitive and behavioural competencies

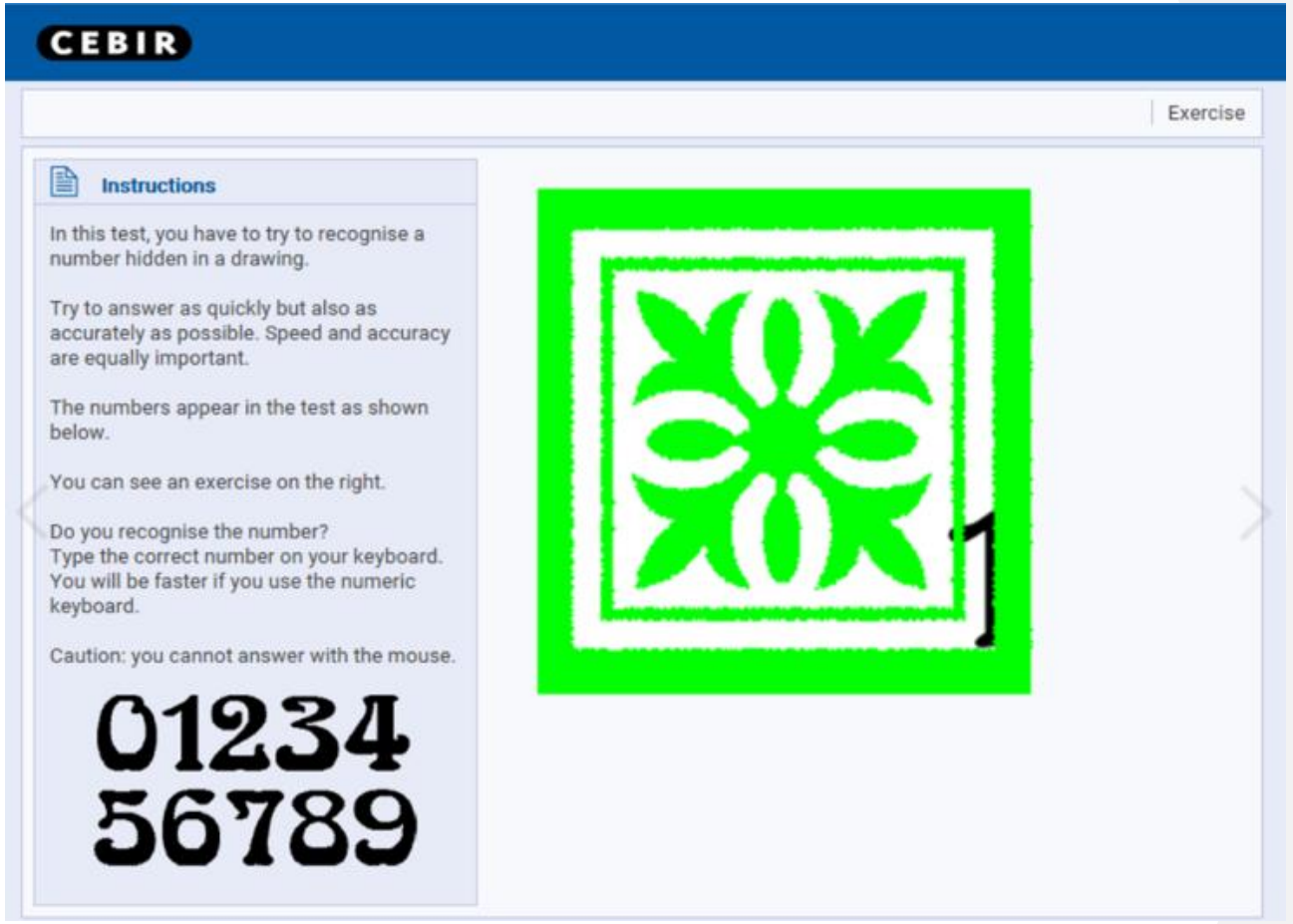
- Indications
  - Recruitment: all safety critical workers
  - Renewal: train driver (every 10 year)
  - After incident/upon request of occupational physician: all safety critical workers

Practical organisation

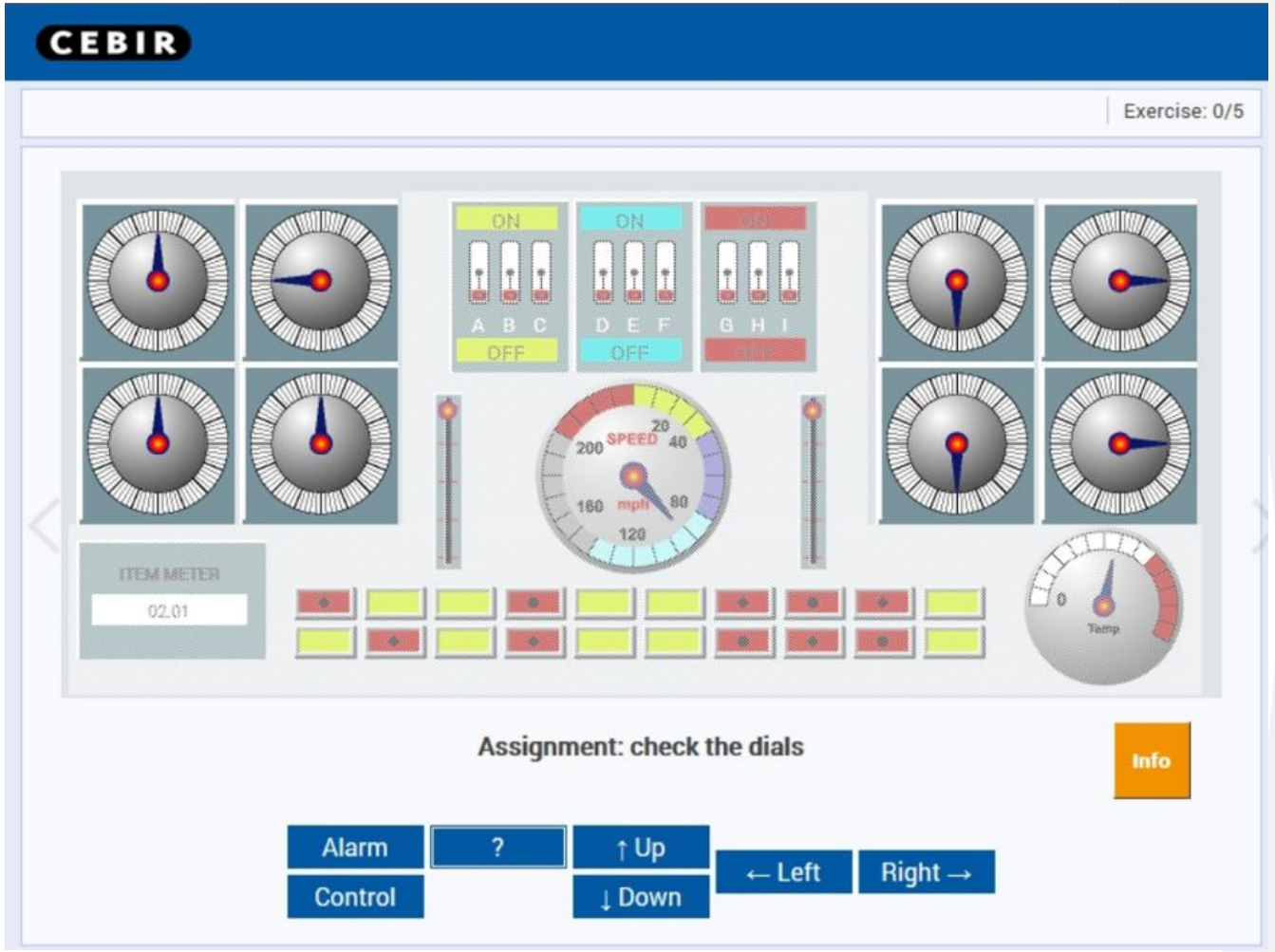
- Psychological and medical testing combined on same day
  - Computer testing
  - Psychological interview and decision by psychologist
  - Medical examination by nurse
  - Medical decision by physician

± 4-5 hours

Selective attention, concentration and perceptual processing (DEGRAD 3*)



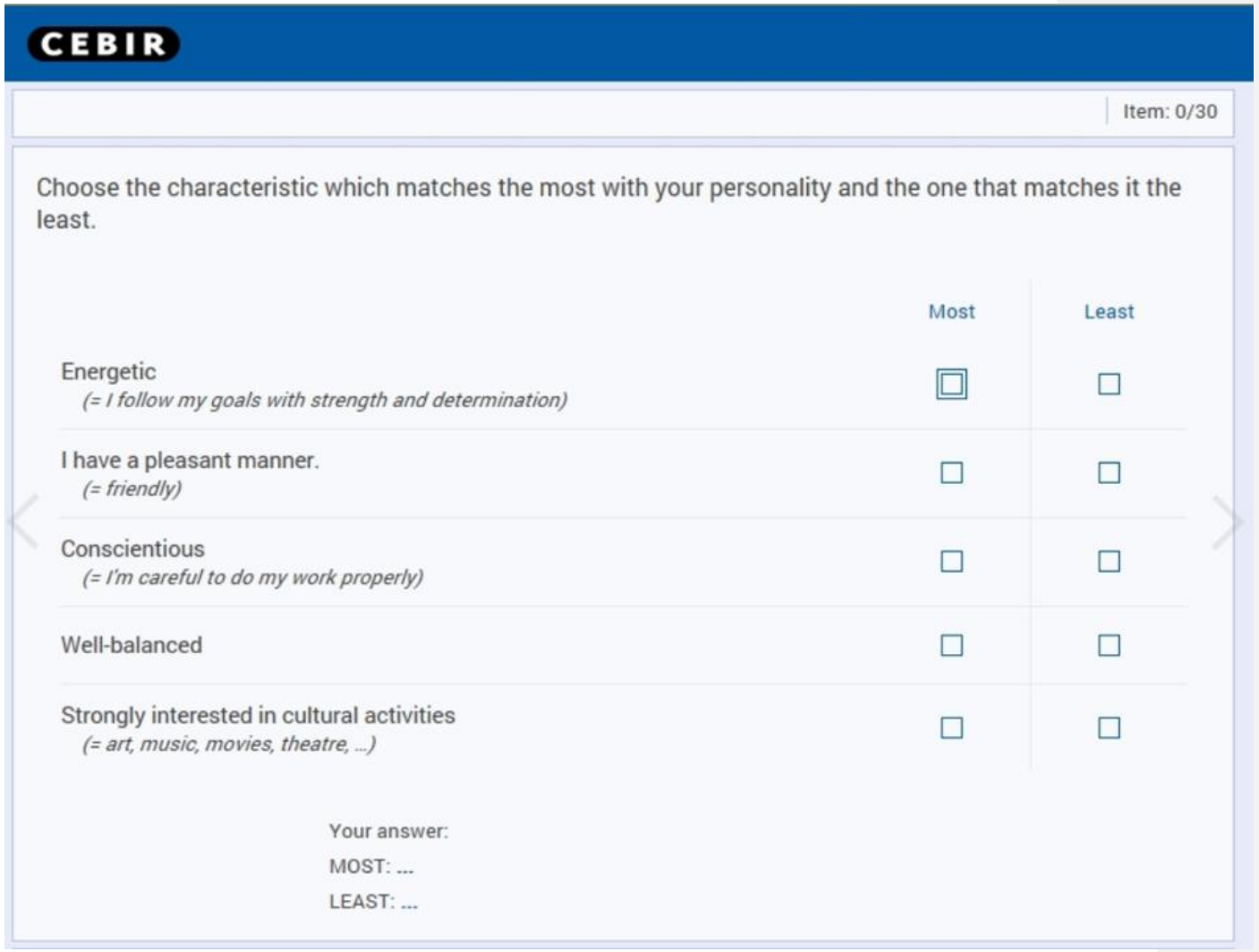
Divided attention (OCT OL 2*)



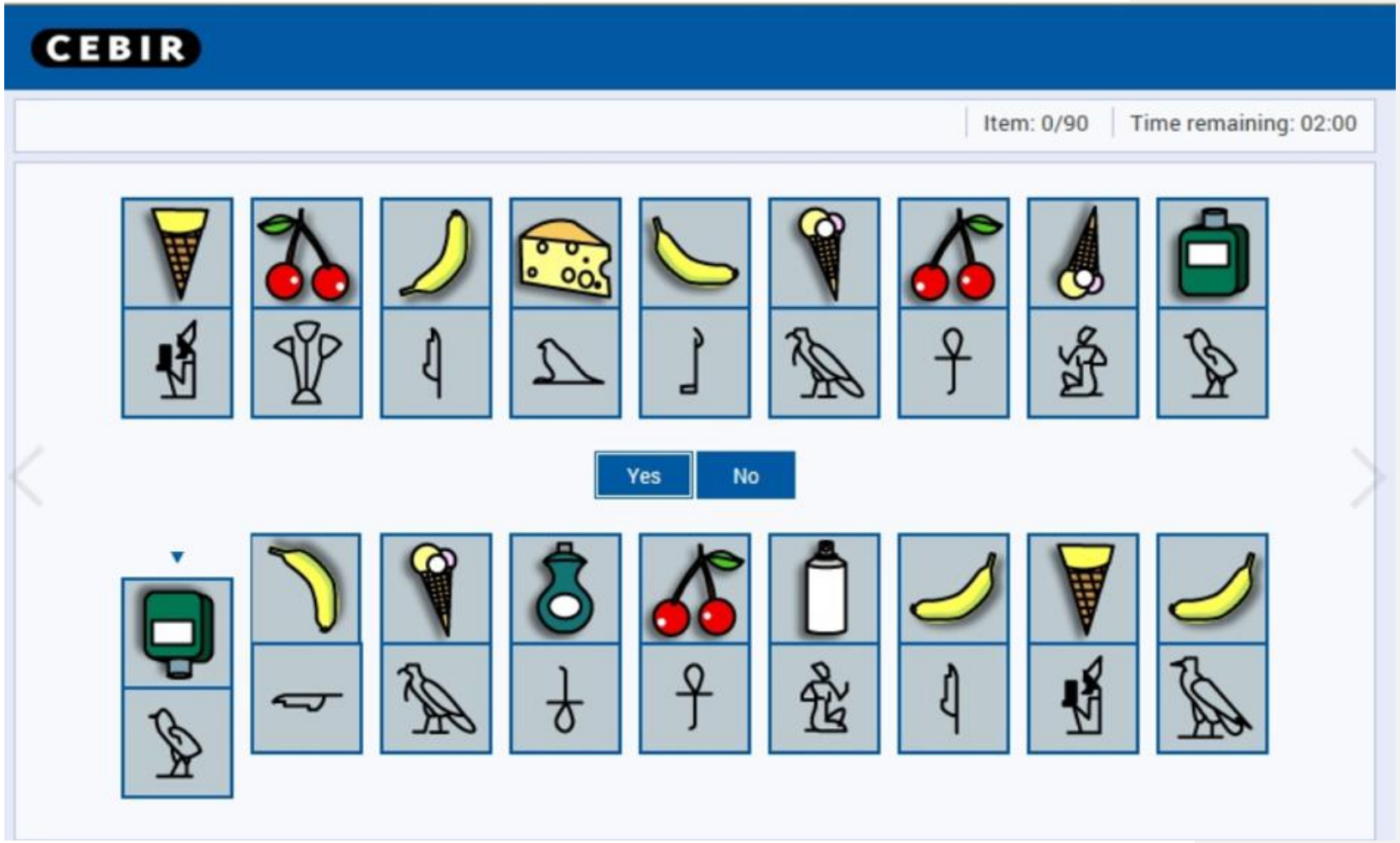
Short and long term memory (CPAL STM 2 and LTM 2*)



Personality dimensions (BFAC PLUS-S 1*)



Speed and accuracy (APS OL 2*)



Interview – safety awareness and sense of responsibility

Work-life balance

Self-care

Sleeping

Boundaries

Focus

Stress relief

Questioning yourself

Healthy habits

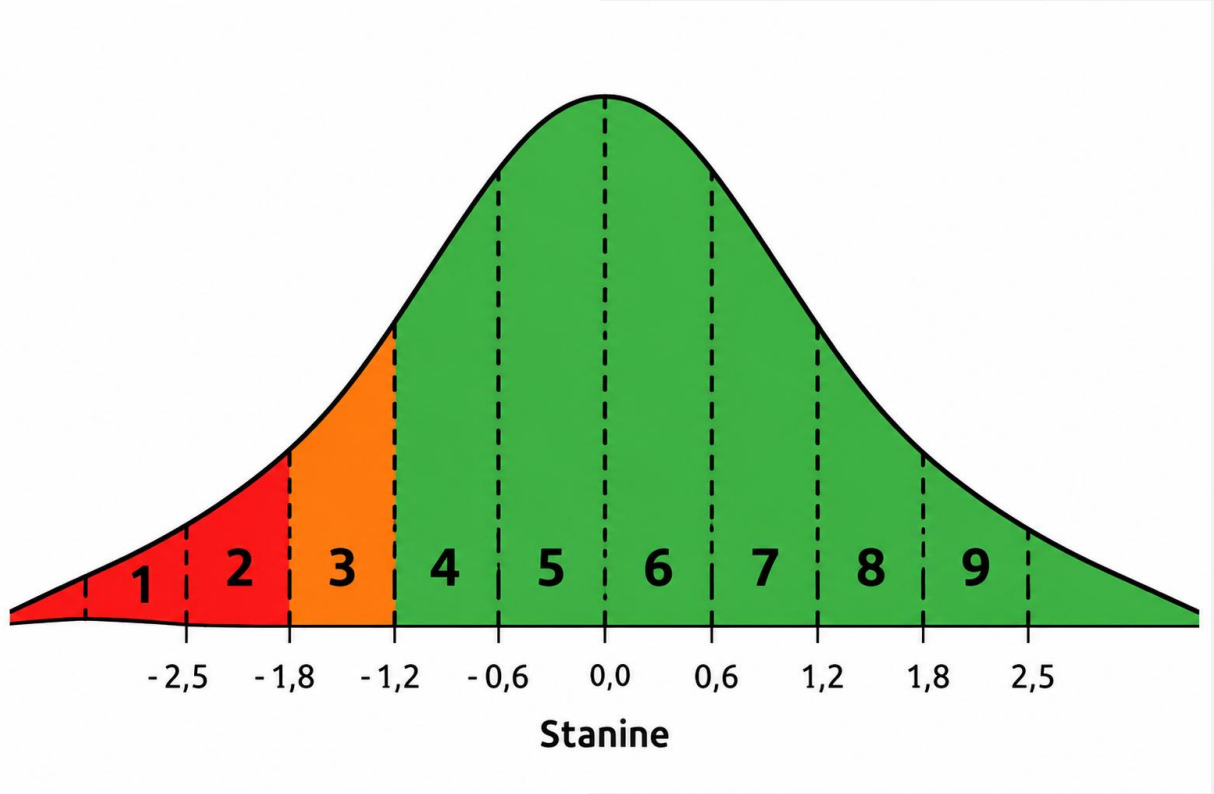
Coping in stress

Emotional regulation

Situational awareness

Scoring

- Train drivers: upper secondary education
- Minimum score criterium: ≥ 4
  - One score of 3 may be accepted



2020-2023 results

	Fit	Unfit	Total
Train drivers	93,7%	6,3%	2772
Train conductors	79,8%	20,2%	104
Other safety critical workers	70,6%	29,4%	1364

Reassessment

- Retest within 1 month
  - Interview by different psychologist
- Appeal procedure possible if failed again
- Retesting after 1 year possible