

Cognitive development

MCS7 Scientific Consultation

KEY CHARACTERISTICS/PARAMETERS

- Importance of objective measures of cognitive development to study
- Adult measures of cognitive development – age 17 benchmarks
- Size of assessment tasks
 - Small number of big assessment tasks
 - Large number of small assessment tasks
- Mode of delivery
 - Home-based, web-based, others?
- Training required for interviewers – cost implications
- Consistency across cohort studies?
- International comparisons?
- Extent to which linked education records a ‘substitute’?
 - Can this be as good as having survey-based measures?
 - Country-specific assessments/records

COGNITIVE TOPICS

- What capabilities do we want to measure?
- Importance of literacy and numeracy on life chances
- Numeracy/maths not collected in MCS5 or MCS6
 - Priority for MCS7?
- Problems with speech (asked at MCS6)
- Vocabulary knowledge
- ICT
- Career aptitude (JIIG-CAL Occupational Interests Guide – BCS70)
- Financial literacy
 - Distinct enough from numeracy?
 - Subject specific purpose? E.g. Finance and HE
- Crystallised skills and fluid intelligence (psychology)
 - Relevance today?

EXAMPLE ASSESSMENTS

- **British Ability Scale (3rd Edition)**
 - Up to 17 years and 11 months
 - 20 short tests: 30-45 minutes
 - 6 Core Scales (thinking and reasoning abilities): Word definitions; Verbal similarities*; Matrices*; Quantitative reasoning*; Recognition of designs; Pattern construction* (Verbal Ability; Non Verbal Reasoning Ability; Spatial Ability)
 - 5 Diagnostic Scales (learning strengths and difficulties): Recall of objects; Recall of digits forward; Speed of information processing; Recognition of pictures; Recall of digits backwards

EXAMPLE ASSESSMENTS

- **Cambridge Cognition – CANTAB**
 - Memory tests, attention tests, executive function tests, decision making tests, social cognition tests, induction tests
 - MCS5 and/or MCS6
 - Utility compared to fundamental domains?
- **Das–Naglieri cognitive assessment system (CAS) test**
 - planning, attention-arousal, simultaneous and successive (PASS) cognitive processing theory
 - More international recognition?

OTHER AREAS

- Personal wealth
 - Source of income or wealth
 - Debts or money owing
 - Educational financial support received
 - Financially dependent (against key items: clothes, food, travel, mobile phones, etc)
 - Others financially dependent on cohort members
- Career/educational decision-making
 - Apprenticeships, vocational education, higher education
 - Work, experiences of work
 - Influences on decisions (e.g. parents, teachers, peers)
 - Hot/cold knowledge, type of information used
 - Aspirations for age 30
- Physical health
 - Obesity
 - Long-term illness

OTHER AREAS

- Social capital
- Citizenship
- Politics and political participation
- Isolation
- Pupil Attitudes to Self and School (PASS) (behaviour and attitudes commonly used assessment tool in schools)