ability measures

Ability tests typically measure intellectual or cognitive capacities although there are some tests of motor abilities (e.g. manual dexterity; hand-eye co-ordination) which would also be categorised as ability tests.

We can make some other generalised points; these are not universally true of all ability tests, but are characteristic of most of the ability tests currently available for occupational use.

These features are:

- administration under standardised conditions with standardised instructions
- little or no specialised knowledge required
- multiple choice format
- rigid time-limits
- right and wrong answers; objective scoring

Ability tests vary in their degree of specificity. Tests of general intelligence have been widely used historically, but in recent years have given way to tests of specific abilities.

General Intelligence

“Intelligence tests” have been designed such that a single test may be used in a wide variety of situations. They typically consist of a number of different types of question, each requiring different cognitive processes, but are scored to provide a single summary score (such as an IQ) as an index of the individual’s general level of performance.

The Verbal Domain

A range of tests are available which have been designed to assess various levels of abilities that relate to using words and language. These range from tests of basic literacy to high level tests of verbal critical reasoning and evaluation. Some verbal abilities which can be measured are listed below:

- Spelling
- Grammar
- Vocabulary
- Verbal Comprehension
- Verbal Conceptualisation
- Verbal Critical Reasoning
- Evaluation of Arguments
- Creativity with Words/Verbal Concepts

It should be noted that, within these areas, tests vary in terms of their level of complexity. For example, a test of verbal comprehension may assess the ability to understand very basic written instructions, while another test measures comprehension of meanings within a complicated paragraph of written text.
The Numerical Domain

Most jobs require a degree of numeracy, but again the difficulty level of the test is critical. Some numerical tests measure the ability to perform basic arithmetic calculations such as adding, subtracting, multiplying etc, while others require an understanding of complex data and/or high level reasoning with numerical information. Some numerical abilities that are commonly assessed are:-

- Basic Numerical Computation
- Basic Numerical Reasoning
- Understanding Data
- Numerical Critical Reasoning
- Numerical Estimation (requiring approximate estimation, not precise computation)

Since most job incumbents now have access to pocket calculators (or other devices which compute arithmetic calculations), some tests permit the use of calculators during the test itself.

Diagrammatic Abilities

Tests designed to measure these abilities typically require reasoning of some kind with abstract diagrams or symbols. Many of these tests involve the identification of sequences, or the comprehension of systems. These have particular relevance to jobs which involve non-verbal comprehension and reasoning, such as computer programming.

Clerical Abilities

Tests assessing clerical abilities focus on speed and accuracy in dealing with detailed information, and in administrative processing of large quantities of material. Batteries of clerical tests may typically assess:

- Checking
- Classification (simulating filing)
- Proof-reading

Spatial Abilities

A number of tests exist which measure spatial abilities. These are concerned with perceptions, judgements and visualisation of shapes or objects in two or three dimensions and have particular relevance to occupations which involve design, manufacture or maintenance of machinery or other objects. Many craft/technician roles involve relating two-dimensional drawings to three-dimensional objects - a task which can be simulated using a paper and pencil ability test.
Mechanical Abilities

The relevance of tests measuring mechanical abilities is obviously restricted to occupations where mechanical comprehension or mechanical reasoning is required. Some of the available tests designed to assess these abilities are more dependent on previously acquired knowledge than would be typical for other categories of psychological tests.

Sensory and Motor Abilities

A further category of tests measure a range of abilities which could be described as more “physical” and less “intellectual”. These include sensory measurements (such as visual acuity, colour discrimination and sensory discrimination) and sensory-motor capacities, including manual dexterity, finger dexterity, eye-foot co-ordination etc.

EXAMPLES OF ABILITY TESTS

General Intelligence

Raven’s Progressive Matrices
AH6

Verbal

KCP - Following Instructions Test (FIT) - Verbal Comprehension
KCP - Short Verbal Test (SVT) - Verbal Critical Reasoning
KCP - Supra Series - Verbal Critical Reasoning

Numerical

KCP - Numerical Computation Test (NCT) - Numerical Computation
KCP - Short Numerical Test (SNT) - Numerical Critical Reasoning
KCP - Supra Series - Numerical Critical Reasoning

Clerical

KCP - Data Entry Test (DET) - Computer Data Entry
KCP - Proof Reading Test (PRT) - Proof Reading
Criterion - Checking Test - Clerical Checking
Criterion - Classification Test - Classification/Filing
Diagramming

SHL - Diagrammatic Reasoning Test

Mechanical Understanding

Bennett Mechanical Comprehension Test

Spatial Awareness

ASE - Basic Skills Series - Spatial

Manual Dexterity

Crawford Small Parts Dexterity Test
Minnesota Rate of Manipulation Test

Sensory

Ishihara Colour Blindness Test