Benefits of using cognitive ability tests

- Easy to administer via paper and pencil or computerised methods to large numbers of individuals.
- Good reliability as predictors of future on the job performance, job-related learning, acquisition of job knowledge, and of performance in job training programs.
- Can reduce business costs by reducing the initial applicant pool to those meeting preset standards of skills and abilities.
- Are objective measures of capability and not influenced by an individual’s attempts to manage impressions or fake responses.
- Assist in ranking candidates in merit order.

What are cognitive ability tests?

Cognitive ability tests measure an individual’s level of ability with regard to the attribute being measured. Psychometric assessments are one of the best predictors of future individual job performance when used in combination with a behavioural interview. They can be used as a type of capability-based assessment to provide an objective measure of performance.

Cognitive ability tests are just one of a number of assessment tools that can be used as a capability based assessment, and should not be treated as the only determinant of the final selection decision. The selection decision should also be based on the candidate’s knowledge and their relevant experience, as assessed through review of the CV, the interview and any exercises designed to draw on those aspects.

Types of cognitive ability tests

- Verbal reasoning tests: Measure basic vocabulary, verbal fluency and the ability to reason using words. Generally individuals are provided with written passages and are asked to answer questions in relation to those passages. This type of test is useful for a great number of roles, for example, policy development and communication roles where the ability
to reason using words is important. This test may be used to measure capability set levels within the Relationships, People Management and Results Groups of the NSW Public Sector Capability Framework.

- **Numerical reasoning tests**: Measure the ability to use numbers in a logical and efficient way. Generally individuals are provided with numerical information (presented in tables or graphs) and are asked to interpret that information in different ways. This type of test may be useful in selecting for roles where the ability to interpret numerical information logically and efficiently is necessary. It may also be used to measure some levels of the Finance capability set which is a core capability within the Business Enablers Group of the NSW Public Sector Capability Framework.

- **Abstract reasoning tests**: Assess the ability to understand new logical problems and use information outside the range of previous experience to solve them. Generally individuals are presented with a number of diagrams or patterns and asked to determine the most logical missing pattern from a number of options. This type of test can be useful when recruiting for various roles from engineering, IT, policy or management roles, which require individuals to have a high degree of problem solving ability and be able to rapidly acquire new information. This test can be used to measure the ability to Think and Solve Problems which is a core capability within the Results Group and Influence and Negotiate within the Relationships group of the NSW Public Sector Capability Framework.

**How do cognitive ability tests work?**

Cognitive Ability Tests may be administered in hardcopy by pencil and paper, or online via computer at the agency or test provider offices and/or from an individual’s home. They are usually timed (approximately 15 to 45 minutes), and in short answer or multiple choice format. If they are administered as a culling tool in an unsupervised environment, candidates who progress to the next stage should re-sit an appropriate version of the test in a supervised environment to confirm that the candidate completed the original test through cross-checking of results.

Cognitive Ability Tests are designed to discriminate between individuals, with questions typically becoming progressively more difficult, so it is not unusual for someone not to finish within the allocated timeframe. Individuals are evaluated based both on the number of correct answers, as well as their speed of cognitive processing. They are developed by appropriately qualified professionals, usually psychologists, and when scored are compared against norms established for particular groups. Examples of groups include adult Australian, university graduates, Manager and Professionals, or a particular role grouping for which norms have been developed.

Agencies should ensure that they select and set cut-off score benchmarks for psychometric assessments that are appropriate for the capability level of the role. To do this, agencies can either consult their in-house experts or seek advice from Assessment Services providers.

**Candidates identifying as belonging to a diversity group**

As in all recruitment processes, cognitive ability assessments should be selected to
minimise the potential for discrimination based on diversity. To achieve this, selection panels should ensure that they select tools appropriately matched to the capability requirements of the role and review reasonable adjustment requests or needs recorded by applicants during the application process then design the assessment process to provide an equal opportunity to assess all candidates against the inherent requirements of the role.

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