Psychometric Testing

What is Psychometric Testing?

Psychometric testing falls into three main types:

- Ability testing
- Aptitude testing
- Personality questionnaires

Ability testing

Ability tests measure a person's potential, for instance to learn the skills needed for a new job or to cope with the demands of a training course. Ability tests are not the same thing as *Tests of Attainment*.

Tests of *attainment* assess specifically what people have learnt e.g. mathematical ability or typing skills. Of course what people have learned does depend on their ability in that domain in the first place so the scores on the two types of test are conceptually linked.

The major difference between tests of ability and tests of attainment is in the way the scores from both types of test are used. Many ability test items look identical to those on attainment tests but attainment tests are different in one crucial respect – they are retrospective: they focus on what has been learnt and on what a person knows and can do now. Ability tests are prospective: they focus on what the person is capable of achieving in the future or their potential to learn. Bear in mind that some attainment is required before certain abilities can be measured, for instance, we need certain knowledge of mathematics before our numerical ability can be measured. In addition a test of attainment cannot be used to directly infer ability.

General ability is usually divided up into specific abilities, reflecting the hierarchical structure of intelligence that is generally accepted by most workers in the field. So a general ability test might be composed of specific numerical, verbal and spatial ability scales brought together as a test battery. They can then be scored and interpreted individually as a specific ability or aptitude measure, or together as part of a general ability measure.

Aptitude testing

There is no widely accepted definition of the difference between ability and aptitude. Most people would agree that to some extent the two terms refer to the same thing: aptitude referring to specific ability, and ability referring to general aptitude. We could probably view ability as underlying aptitude, and aptitude as being more job related

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than ability. For instance a computer programmer might score highly on a verbal ability test and highly on a programmer aptitude test but not the other way around.

Personality Questionnaires

Personality is a term which is commonly used in everyday language but which has been given a particular technical meaning by psychologists. When we discuss personality we must remember that it is not a single independent mechanism but closely related to other human cognitive and emotional systems. In this CD you there is a sample personality questionnaire so that you can get an idea of it is all about.

A definition of personality

We can define personality as – *those relatively stable and enduring aspects of an individual which distinguish them from other people, making them unique, but which at the same time permit a comparison between individuals.*

Psychometric Tests

Psychometric tests are used widely for selection purposes across industries and for a multitude of positions. Regardless of the post you are applying for (management, graduate, professional, IT, administrative, engineering or any other), you are likely to face a psychometric test either before, during or after the job interview.

Psychometric tests include a wide variety of aptitude tests and personality tests.

These tests are designed to gauge your aptitude skills in particular areas as well as your personality profile and determine how appropriate it is for a particular job.

The test battery differs from one assessment to the other, however most include two sections:

- a behavioral psychological section which includes a face-to-face interview, a personality test or questionnaire, a group exercise and an in-tray exercise (for managerial roles)
- a testing unit which includes a range of aptitude tests – verbal critical reasoning tests, numerical reasoning tests, abstract (diagrammatic) reasoning tests and in some cases specialty niche tests.

Preparing for your psychometric test will improve your results and strengthen your psychological state of mind, increasing your chances of success when applying for your desired job. There are several internet sites that offer online tests for you to prepare.

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What is an Assessment/Development Center?

The term assessment centre does not refer to a physical place, instead it describes an approach. Traditionally an assessment center consisted of a suite of exercises designed to assess a set of personal characteristics, it was seen as a rather formal process where the individuals being assessed had the results fed back to them in the context of a simple yes/no selection decision. However, recently we have seen a definite shift in thinking away from this traditional view of an assessment centre to one which stresses the developmental aspect of assessment. A consequence of this is that today it is very rare to come across an assessment centre which does not have at least some developmental aspect to it, increasingly assessment centers are stressing a collaborative approach which involves the individual actively participating in the process rather than being a passive recipient of it. In some cases we can even find assessment centers that are so developmental in their approach that most of the assessment work done is carried out by the participants themselves and the major function of the center is to provide the participants with feedback that is as much developmental as judgmental in nature.

Assessment centers typically involve the participants completing a range of exercises which simulate the activities carried out in the target job. Various combinations of these exercises and sometimes other assessment methods like psychometric testing and interviews are used to assess particular competencies in individuals. The theory behind this is that if one wishes to predict future job performance then the best way of doing this is to get the individual to carry out a set of tasks which accurately sample those required in the job and are as similar to them as possible. The particular competencies used will depend upon the target job but one will often find competencies such as relating to people; resistance to stress; planning and organizing; motivation; adaptability and flexibility; problem solving; leadership; communication; decision making and initiative. There are numerous possible competencies and the ones which are relevant to a particular job are determined through job analysis.

The fact that a set of exercises is used demonstrates one crucial characteristic of an assessment centre – namely that **it is behavior that is being observed and measured.** This represents a significant departure from many traditional selection approaches which rely on the observer or selector attempting to infer personal characteristics from behavior based upon subjective judgment and usually precious little evidence. This approach is rendered unfair and inaccurate by the subjective whims and biases of the selector and in many cases produces a selection decision based on a freewheeling social interaction after which a decision was made as whether the individual's 'face fit' with the organization.

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Assessment centers usually:

- have a pass/fail criteria
- are geared towards filing a job vacancy
- address an immediate organizational need
- have fewer assessors and more participants
- involve line managers as assessors
- have less emphasis placed on self-assessment
- focus on what the candidate can do now
- are geared to meet the needs of the organization
- assign the role of judge to assessors
- place emphasis on selection with little or no developmental feedback and follow up
- give feedback at a later date
- involve the organization having control over the information obtained
- have very little pre-centre briefing
- tend to be used with external candidates

In-Tray Exercise

In-tray exercises are commonly used during selection and recruitment processes – typically on assessment centers. The in-tray exercise is a form of test designed to assess managerial abilities. Candidates are asked to assess and prioritize data under pressure and consequently make rationalized decisions within a set time frame.

What to expect?

An in-tray exercise usually simulates a real-life 'work experience', in which you come in to your office after a weekend or a holiday and you are flooded with e-mails, notes and phone calls and you must prioritize and attend all. The exercise measures your managerial skills and your ability to reach the right decisions under time pressure.

Often you will be given a role in an organization (e.g. Marketing Manager for a company), you will be presented with a number of documents (e.g. memos, e-mails, faxes) addressed to yourself. You will be asked to give a priority ranking to each of the documents and suggest the proper way to handle each one. In addition to the documents you may be given an organizational chart of the organization you work for.

Before you begin

Prior to doing an in-tray exercise it is vital you have a brief look through the documents and study the organizational chart. This will give you an overview of the organization,

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the inter-personal relationships, politics and the issues you have to consider prior to deciding on the appropriate method to handle each of the documents.

Things you should consider:

1. Does the document require your personal attendance or can it be delegated to a member of staff? If so, who should it be delegated to?
2. Does the document require immediate attention or can it be postponed and until when?
3. Does the document concern the entire organization or is it a personal matter?
4. By when must the task be fulfilled? Is it dependant on the performance of another task? Does it clash with any other tasks?
5. Does the task concern an important member of the organization?
6. How important is the task?

In-Tray versus E-Tray exercises

In most cases you will be asked to do an in-tray exercise rather than an e-tray exercise. This means the materials of the exercise will all be hard copied and you will have the physical documents in front of you. In addition, you will have to write the ways in which you handle each document and the urgency ranking you give it. An e-tray exercise on the other hand is executed on a computer – all the documents and information is provided on-line. The significant difference in this case is that with an e-tray exercise you have to select the most appropriate manner for dealing with the document from a list of optional answers (multiple choices) rather than suggesting in writing your own solution.