

# What is?

## a PSYCHOLOGICAL TEST?

Psychological tests measure characteristics of people such as their personality, intelligence, attitudes, preferences, motivations, interests, needs and values. A psychological test can be defined as:

*A brief sample of someone's behaviour, obtained under standard conditions, and scored according to a fixed set of rules that provide a numeric score or classification.*

From that small sample of behaviour we hope to be able to infer many things about the person, such as their knowledge on a particular subject, their ability to solve a particular problem, or cope with a specific situation, or their likely reaction in a range of circumstances.

### Many important principles are contained in the definition given above.

- First, is the emphasis on behaviour—psychological attributes can only be determined by getting someone to **do** something; they cannot be inferred just by looking at someone.
- Second, the sample of behaviour is **brief**, which makes psychological testing very efficient.
- Third, the sample of behaviour is obtained under **standard conditions** which allow us to make fair comparisons between people. Standardisation also allows the observation to be repeated and checked by someone else. The ability of psychological tests to be independently verified means that they are open to evaluation and criticism, which is a good thing and leads to their continued refinement.
- Finally, the **fixed set of scoring rules** allows the behaviour in question to be assessed quantitatively and analysed statistically.

### Types of psychological tests

Thousands of different tests have been developed to measure hundreds of different psychological concepts. Some have stood the test of time although others have not. Anything conforming to the above definition can be viewed as a test although they may also be referred to as “inventories”, “questionnaires” or “blanks”. Some tests, such as tests of intelligence or achievement, are made up of items with well-defined correct answers; while others, such as personality inventories, do not have right or wrong answers, but are designed to capture a person's predispositions, tendencies and preferences.

Tests can appear in many different guises. Some are administered one-on-one in a verbal question and answer session with a highly-trained test administrator, others are more like a school exam in which a group of test takers work quietly through a test booklet. Some tests are strictly timed while others can be answered at one's leisure. Tests of the problem solving variety tend to require formal conditions whereas this is less important when assessing interests or preferences.

A familiar form of test is the questionnaire in which the behaviour sampled simply involves indicating agreement with a written statement, but tests can require more complex written or verbal responses or the performance of complete actions such as a particular work-related task. Further, computer and video technology are opening up many new forms of testing which use animation or graphics.

### Why are tests important?

Tests become important when their scores relate to other behaviours of interest, such as performance at school or at work. Such situations can involve crucial life decisions such as getting into a course, settling an insurance claim or

getting a job. When a relationship between test scores and other relevant behaviour is established, tests can be a very efficient means of obtaining much useful information. Decision makers often value the objective and impartial assessment provided by tests to supplement their final judgement. When the situation is important, it is imperative to use a good test. Anyone hoping to use psychological tests needs to know how to identify the most useful test for their purposes and how to distinguish good tests from bad.

### What makes a good test?

Psychologists evaluate tests in terms of 'reliability' and 'validity'. Reliability relates to the dependability of test scores. For example, if someone's scores differ markedly on two separate occasions, then the test cannot be said to be measuring anything stable or identifiable about the person and should not be used. Validity refers to what the test is attempting to measure and leads to questions like: Does the test predict future performance? Is the concept being measured meaningful? What research supports use of the test? Is the test relevant to this situation? How does the test relate to other psychological measures? Do the items making up the test look sensible and relevant?

Indices of reliability and validity range between 0 and 1. Good reliabilities are in the order of .75 and above, however, validities are usually somewhat lower and partly depend on the context in which the test is being used. Generally speaking, acceptable validities range between about .20 to about .50. Reliability is a prerequisite for validity since an unreliable test cannot validly measure anything.

### Good practice

Before worrying about which test to use, the first step is to evaluate your situation and the reasons for wanting to use a psychological test. Which psychological factors are relevant to what you want to do? In an organisational context, such factors should be chosen by conducting a job analysis (*see* "What is Job Analysis?"). For example, if you wanted to fill an office job, your job analysis may have identified dependability, good attention to detail and numeric skills as

important characteristics of someone in that position. Bad practice is to work through a test catalogue like the menu in a restaurant and select tests that sound interesting or applicable without being able to justify why.

Once you decided which test to use, ensure that it has good reliability and validity and administer and score it according to the test manual. It is advisable to undertake training to help you learn how to select, administer, score and provide appropriate feedback about the results of psychological tests. Indeed, in many cases, such training is mandatory before tests can be used. You can enquire about training requirements from the British Psychological Society and the major test publishers. Alternatively, you can engage the services of someone who already has this training, such as a professional psychologist.

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