

Intelligence Test, Types and uses

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Definition of Intelligence Tests:

A questionnaire or series of exercises designed to measure intelligence. There are many types of intelligence tests, and they may measure learning and/or ability in a wide variety of areas and skills. Scores may be presented as an IQ (intelligence quotient), as a mental age, or on a scale.

The test is scored in terms of intelligence quotient, or IQ, a concept first suggested by German psychologist William Stern (1914) and adopted by Lewis Terman in the Stanford-Binet Scale.

The IQ was originally computed as the ratio of a person's Mental age (MA) to his chronological age (CA), multiplied by 100. Was expressed as:

$$\text{IQ} = \text{MA/CA} \times 100$$

Thus, if a child of 10 had a mental age of 12 (that is, performed on the test at the level of an average 12-year-old), then the child was assigned an IQ of $(12/10) \times 100$, or 120. A score of 100, for which the mental age equaled the chronological age, was average; scores above 100 were above average, scores below 100 were below average. The concept of mental age has fallen into disrepute, however, and few tests now involve the computation of mental ages. Yet many tests still yield an IQ; this figure is now computed on the basis of the statistical percentage of people who are expected to have a certain IQ. Intelligence test scores follow an approximately "normal" distribution, with most people scoring near the middle of the distribution curve and scores dropping off fairly rapidly in frequency away from the curve's centre. For example, on the IQ scale about 2 out of 3 scores fall between 85 and 115 and about 19 out of 20 scores fall between 70 and 130. A score of about 130 or above is considered gifted, while a score below about 70 is considered mentally deficient or retarded.

Classification of Intelligence Tests:

On the basis of size, the intelligence tests can be classified under two heads such as:

- (i) Individual tests, and
- (ii) Group tests.

On the basis of language used, the intelligence test can be divided into two types namely:

- (i) Verbal tests, and
- (ii) Non-verbal test or Performance test.

The classification of intelligence tests can be explained better through tabular form:

Test	Individual Tests	Group Test
Verbal Test	Individual-Verbal	Group Verbal
Non-verbal Test or performance Tests	Individual Non-verbal	Group non-verbal

(1) Individual Verbal Tests:

In this type of intelligence tests one person appears the test at a time for whom it is meant. The teste is required to use language while attending the test items. Here the subject's response may be given to oral form or written form.

Examples:

- i. Stanford-Binet Test of Intelligence.
- ii. Wechsler Intelligence Scale for Children (Verbal Scale).

The individual verbal tests act as suitable instrument to bring idea about intelligence for literate and physically handicapped children of lower age group. Inspite of this merit it has certain drawbacks.

It is more costly affair and time consuming. Besides this it required trained person to administer and use. It is unsuitable to those who are unable to read and write the language of the test.

(ii) Individual Non-verbal Tests:

This test is administered to one person at a time for whom it is meant. It is designed for that person who is unable to read and write the language of the test and it is meant for young children also. It includes different activities like completing pictures, arranging pictures correctly, setting blocks, cubes etc.

Examples:

- 1. Wechsler Intelligence Scale for Children (performance scale).
- 2. Pintner Paterson's Scale.

In case of illiterates, children and persons having language deficiency the performance test is best suited and most appropriate test to measure their intelligence than language tests.

(iii) Group Verbal Tests:

The group-verbal tests on intelligence are administered to a large number of subjects at a time who can read and write the language of the test. The subjects are warned to make their pencils and pens ready before administration of the test. Here time limit of the test is almost all equal to every student.

Examples:

1. Jalota's Scale of Intelligence.
2. Desai's Verbal Group Test of Intelligence.
3. CIE Verbal Group Test of Intelligence.

This test is more helpful for the students in the context of their examination fear and tension because it includes large number of students for the same. It is economic as well as time saving. Mainly this test is suitable for adult group and literate group.

(iv) Group Non-verbal Tests:

In this category tests are administered in a group. A large number of subjects who are illiterate, deficient in language appear the test. This test has the features of both group and non-verbal tests of intelligence.

Examples:

1. Raven's Progressive Matrices test.
2. Cattle's Culture Free Test.
3. Pintner Patterson Scale of Performance Test.
4. Bhatia's Battery of Performance Test.

The Battery consists of five sub-tests viz.:

- (a) Koh's Block Design Test.
- (b) Alexandar's Pass-Along Test.
- (c) Pattern-drawing Test.
- (d) Immediate Memory Test.
- (e) Picture Construction Test.

Uses of Intelligence Tests:

- (i) The classification of the students on the basis of intelligence test scores.
- (ii) Measurement of the learning readiness of students at different age levels.
- (iii) Selection of subjects, courses and careers.
- (iv) Diagnosis of reading inability and educational backwardness.
- (v) Prediction of future progress of a student.
- (vi) Selection of candidates for officers training in defense services.
- (vii) Ascertaining the magnitude of individual difference.
- (viii) Prediction for vocational success of student in occupational life.
- (ix) For the preparation of case study report.
- (x) The comparative study of the students may also be made.
- (xi) Providing educational, vocational and personal guidance to the students.

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