

INTELLIGENCE

concept → stern
IQ test scale → binet
IQ formula } → Terman
IQ testing }

Intelligence:-

Intelligence is the ability to think, to solve problems, to learn^{from experiences}, to adapt to new situations. Intelligence is important because it has impact on many human behaviours.

Achievement:-

Achievement refers to the knowledge & skills gained from experiences.

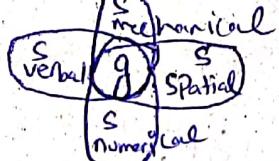
* Intelligence also provide basis for achievement.

IQ :-

IQ (intelligence Quotient) is a number to express the relative intelligence of a person. It is one of many Intelligence test.

→ It is calculated by taking the ratio of mental age (ma) to chronological age (ca) (physical age) & multiplying it with 100.

$$IQ = \frac{ma}{ca} \times 100$$



→ SPEARMAN (1904) ^{developed} Factor analysis

Factor Analysis:-

In 1904 Charles Spearman developed statistical procedure called factor Analysis. In factor Analysis related items are tested for correlation to each other then the correlation are evaluated to find cluster or group of the variables.

Two factors theory:-

Charles Spearman in 1904 formulated two factors theory. According to him intellectual abilities compromise of two factors.

- 1) general ability (g) known as G Factor
- 2) specific ability (s) known as S Factor.

↳ The performance of an individual is determine by G Factors & s factors.

↳ The total intelligence of an individual is the sum of G Factors & s factors.

→ The Performance of the tasks depends on G Factor by S Factor

Characteristics of G Factors-

- It is inborn ability
- It is mental energy
- It is constant
- It differ from individual to individual
- It is used in every activity of life
- The greater the value of g the more successful an individual will be.

Characteristics of S Factors:

- It is learned or acquired in the environment
- It differ from activity to activity in the same individual
- Individuals differ in the amount of stability.

LOUIS THURSTONE 7 Primary mental ability :- (1930)

Louis Thurstone proposed a theory in 1930 that intelligence consists of several different factors. The seven primary mental ability were discussed in this theory that were

- 1) ~~verbal~~ comprehension
- 2) ~~word~~ Fluency
- 3) Number facility
- 4) spatial visualization
- 5) perceptual speed
- 6) associative memory
- 7) reasoning

Social Intelligence

It refers to person's ability to understand and manage interpersonal relationships. Social intelligence develops from experiences with people, from successes, by failures in social settings.

Emotional Intelligence

Emotional Intelligence is the ability to understand, use, manage your own emotion in a positive way to relieve stress, communicate effectively, empathize with others, solve problems by diffuse conflicts.

Components of EI by Daniel Goleman

- 1) self awareness- the ability to recognize & understand your moods & emotions & how they affect others.
- 2) self regulation- the ability to control impulses & mood & to think before acting
- 3) motivation- being able to pursue goals for personal reasons rather than for some awards.
- 4) Empathy- the ability to recognize & understand others motivation which is essential for leading teams.

5) Social Skills: The ability to manage relationships by build networks.

Benefits

- 1) Increased leadership ability
- 2) Increase team performance
- 3) Improved decision making
- 4) Reduce turnover
- 5) Increased personal well-being

* Gardeners & others criticize the idea of emotional intelligence & even called it as garbage. They said that it is not good idea to wether to stretch the idea of intelligence for when we apply it to emotion.

Howard Gardner Multiple Intelligence

Howard Gardner proposed that people are not born with all the intelligence they will ever have. He also suggested that ~~peop~~ different people have different intelligence/ability in different areas. From this he formulated 8 different types of intelligence.

- 1) Naturalist
- 2) Logistics
- 3) Logical - Mathematical
- 4) Musical
- 5) Spatial
- 6) Bodily - kinesthetic
- 7) Interpersonal
- 8) Intrapersonal.

Steinberg Triarchic Theory:-

Steinberg also agreed with the Gardner but suggested three intelligence rather than eight.

- 1) Analytical \Rightarrow Intelligence that is assessed by intelligence test
- 2) Creative \Rightarrow Intelligence that make us adopt novel situation, generating novel ideas.

Alfred Binet EXP:-

In the 1800 a new law was passed in the France for universal education for this a french psychologist Alfred binet was appointed by the french government the task for him was to identify students who needed special assistance with their studies so with his collaborator Theodore Simon they carried out the first intelligence test called binet - Simon intelligence test scale which is still in used today.

→ Binet assumed that childrens were following the same course of development, some were going more quickly & other were going more slowly.

Binets ~~and~~ attempted to measure the mental age & that how far the child have come on normal development path.

→ The implication was that the children with lower ability were delayed not disable & they could improve with the required help.

Lewis Terman

Lewis Terman played an important role in early development of educational photo psychology. He suggested his father carried the Alfred Binet-Simon intelligence scale theory & added new norms like he not only classified childrens but also broaden his range & also include adults & all range ages of human. He also suggested that the gifted childrens should be identified in early age.

offered tailored instruction, & should be taught by high trained teacher. In he also formulated that the pass children with high IQ were educ more successful ion ~~their~~.

PsyC.

Cappi → He developed the formula for testing or calculating IQ.

$$\text{Spe} = \frac{\text{me}}{\text{ca}} \times 100$$

SO.

sim.

firs Terman's IQ table (1916)

bin

wh Range

Classification

Above 140

Genius (gifted)

120-140

Very superior

110-120

Superior

90-110

Average

80-90

Below avg

70-80

Borderline

below 70

Definite feeble

50-70

morons

25-50

imbeciles

below 25

idiots.

dependent (nervous system)

Standardization

Standardization includes reliable methods, accurate contents, administration instruction of an avg population zero score to compare with sample score.

→ standardization is the process of ~~testing~~ trying new test or treatment getting feedback & making changes to improve it.

→ Standardized tests establish a normal distribution of scores on tested population forming a bell shape pattern called a normal curve.

Flynn effect

Flynn effect is substantial & long sustained increased in both fluid & crystallized Intelligence test scores that were measured in many part of world over the 20th century.

fluid :-

It is the ability to process new information, learn & solve problems.

crystallized:-

It is your stored knowledge accumulated over the years.

→ They both work together & both increases through childhood.

RELIABILITY:-

A test is reliable when it yields consistent results.

1) split half reliability:- Dividing the test into two equal halves & assessing how consistent the scores are.

2) Equivalent form reliability:- using different form of the test to measure the consistency between

3) Test Re-test reliability:- using the same test on two different occasions to measure the consistency.

Validity

reliability of a test does not ensure validity. Validity of a test refers to what a test is suppose to measure or predict.

- 1) construct :- does the test measure the concept that it's intended to measure
- 2) content :- does the test fully represent what it aims to measure
- 3) face :- does the content of the ~~test~~ appears to be fully suitable for the aim
- 4) criterion :- does the result accurately measure the concrete outcome that they are designed for ~~to~~ to measure.