

12th Psychology

Concept of intelligence:

The word intelligence forms part of our ordinary stock of words which we use everyday e.g. the ability to understand, reason and perceive, quickness in learning, mental alertness, ability to grasp relationships etc. Words like capacity, talent, and aptitude are used as synonymous of intelligence.

In the field of psychology, the word intelligence finds a fairly comprehensive use and is defined differently by different psychologists. Broadly speaking, intelligence is a capacity to profit from experience and to go beyond the given. Some of the definitions proposed by psychologists are given below:

According to Binet and Simon, “Intelligence is the ability to judge well, to understand well and to reason well.”

According to Howard Gardner, “Intelligence is the ability or skill to solve problems or to fashion products which are valued within one or more cultural settings.”

According to Wechsler, “Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with the environment.”

According to Robert Sternberg, “Intelligence comprises the mental abilities necessary for adaptation to, as well as shaping and selection of any environmental context.”

Nature of Intelligence:

The main characteristics of intelligence are:

1. Intelligence is innate natural power and not acquired.
2. It differs from individual to individual.
3. It helps the individual in learning things and making adjustment.
4. It helps man to solve problems of life.
5. Heredity exercises a good deal of influence on intelligence.
6. Socio – economic and cultural factors as well as racial differences affect intelligence.

Meaning of Aptitude:

An aptitude is a combination of characteristics that indicates an individual's capacity to acquire some specific knowledge or skill after training. It simply states that you need to possess various qualities in different proportions to learn or become something, such as to acquire ability to speak a language or to become a musician and so on.

These qualities can be harnessed by appropriate training for e.g. if a person does not have the special abilities required to become a musician, such as discrimination between pitch, tone, rhythm and aspects of musical sensitivity, he/she would not be a musician, even after a sufficient training.

Aptitude refers to the potential ability of the individual to perform a task, which generally consists of a combination of abilities.

Definitions:

According to Bingham, "Aptitude is a measure of the probability of success of an individual with training, in certain type of situation."

According to Hahn and Mclean, "It is a hidden potentiality which can be trained."

Types of Aptitude:

- 1. Mechanical Aptitude:** Means the manipulation of objects to achieve desired practical results. It also involves the manipulation of symbols representing the objects, their relationships in time and space as engineering or piloting.

Mechanical aptitude is made up of many components such as intelligence, muscular development, ability to perceive correct relationships, endurance etc.

- 2. Clerical Aptitude:** Super says, "In routine clerical work one would expect speed and accuracy in checking numerical and verbal symbols to be characteristic of the successful worker. There is some justification for referring to this ability as clerical aptitude."

Clerical duties include gathering, classification and presentation of data of all sorts and the analysis and use of these data in planning, executing and determining the results of experiment.

3. **Literacy Aptitude:** It is a recently recognized aptitude. It represents a number of skills like information about literary events, literary composition and appreciation etc.

Giftedness Meaning: The term 'gifted' is an adjective, which refers to a person endowed with one gift or many gifts, exceptionally talented or intelligent. The study of such gifted persons began with the work of Lewis Terman in 1925, who developed intelligence tests for screening populations to identify individuals of superior cognitive ability. Thus, giftedness was defined as high general intelligence as measured by high score on test of intelligence. In recent years, however, giftedness is defined as a superior ability in any worthwhile line of human endeavour including moral, physical, emotional, social, intellectual or aesthetic life of the humanity.

- ▶ Gifted individuals exhibit high level of performance in comparison to their peers living in the same social – cultural background.
- ▶ Giftedness is not restricted to performance, on a test of intelligence. Rather, it is combination of general ability, special talents, self – concept and motivation that predisposes the gifted person to learn, to achieve and to strive for excellence.
- ▶ It is not just limited to school related activities but is the nature and organization of abilities that constitute giftedness.

Characteristics of gifted children: A few characteristics of gifted children are as:

- ▶ A higher order in thinking process, problem solving and decision making.
- ▶ High incidence of social and emotional problems.
- ▶ Transferring skills to new problems and solving problems insightfully.
- ▶ Preference for being solitary and is introverted.
- ▶ Independent thinking and non-conformism.
- ▶ High on self-efficacy and internal locus of control.
- ▶ Intrinsically motivated to achieve mastery, derive pleasure from work and having a high self-esteem about their intellectual capacities.
- ▶ Possibility of showing giftedness in one area and poor learning in another.

- Identification of the gifted: the tests of intelligence and achievement have been most frequently employed for the identification of the gifted children. Many special programmes for gifted children have rather used to cut off points such as IQ's of 130, 135, 150 or 160 or achievement at about 95th percentile.

However attention is given to the following types of data as an indicator of giftedness.

- Performance on group intelligence test.
- Teacher judgment.
- School record, including achievement test scores and teacher grades.
- Performance on individual intelligence test.
- Appraisal of social and emotional maturity and adjustment.
- Parent interviews.
- Pupil ambition and drive.

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