



# CLASS – 12

## PSYCHOLOGY

### Chapter - 1


### Variations in Psychological Attributes

#### Part – 3

#### Variations of Intelligence

Sonal Koul

# OVERVIEW

- 
1. Individual differences in human functioning
  2. Assessment of psychological attributes
  3. Intelligence
  4. Theories of intelligence
  5. Variations of intelligence
  6. Intelligence tests
  7. Culture and intelligence
  8. Emotional intelligence
  9. Creativity

# INTELLIGENCE : INTERPLAY OF NATURE & NURTURE

## 1. Nature (Heredity)

- ✦ Genetic factors shape intelligence & personality.
- ✦ Influence the environment one chooses
- ✦ Twin Studies & Adopted children





# NATURE

## I) TWIN STUDIES

i) 0.90 - together } Identical  
Twin

ii) 0.72 - " }

iii) 0.60 - together }

iv) 0.50 - together } Fraternal  
Twin

v) 0.25 } SIBLINGS  
↑



2) Adopted Intelligence



Similar =  
BIOLOGICAL  
PARENTS

## 2. Nurture (Environment)

- ✧ Quality schooling, nutrition, and facilities improve IQ. **INTELLIGENCE ↑**
- ✧ Children from poor backgrounds show IQ gains when adopted into high-SES families.



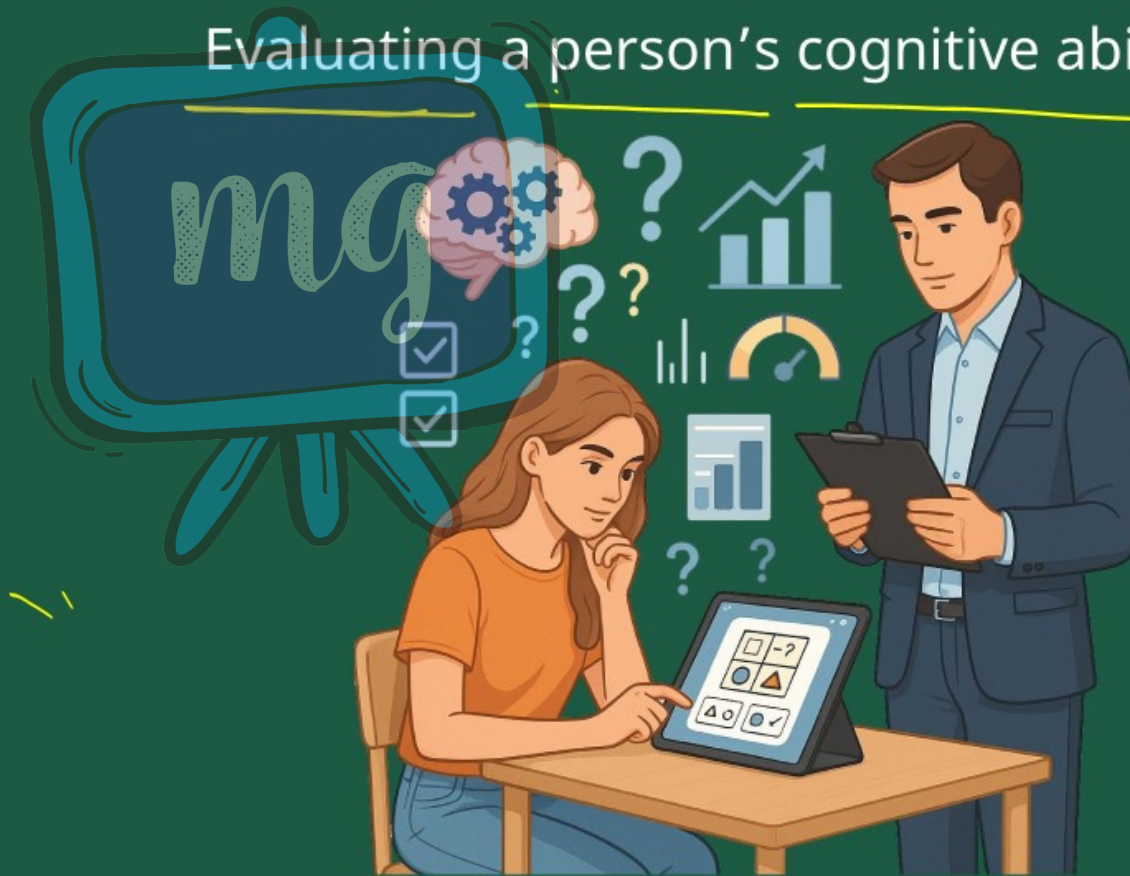
### 3. Conclusion

Intelligence is shaped by both genetics and environment.



# ASSESSMENT OF INTELLIGENCE

Evaluating a person's cognitive ability.





# BINET & SIMON [MENTAL

IQ (Intelligence Quotient) AGE

✦ Proposed by William Stern (1912)



$$IQ = \frac{MA}{CA} \times 100$$

- MA = Mental Age
- CA = Chronological Age

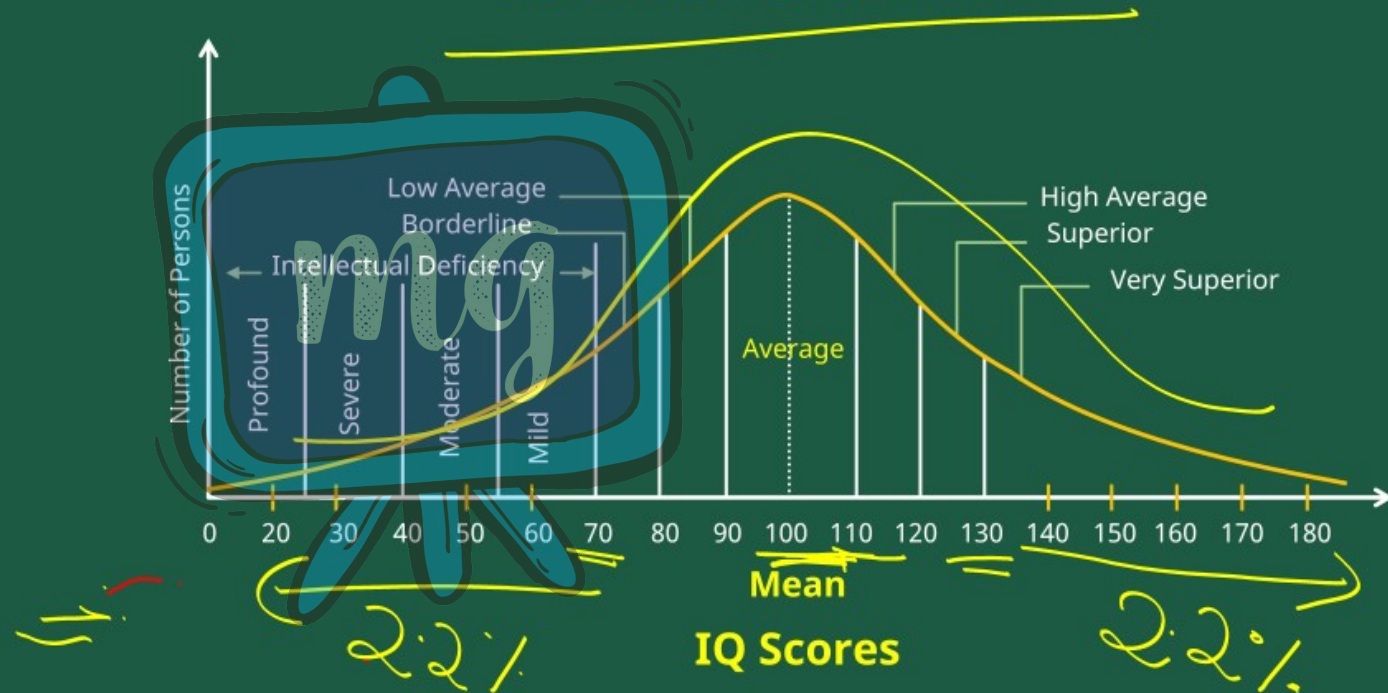
✦ **Interpretation**

RETARDATION

✦ MA > CA → High IQ

✦ MA < CA → Low IQ

# NORMAL CURVE



# INTELLECTUAL DEFICIENCY (PER AAMD DEFINITION)

Significantly <sup>70</sup>below-average intellectual  
functioning with deficits in adaptive  
behavior, appearing during the  
developmental   period.

0-18  
years



# Types of Intellectual Deficiency (Based on IQ Levels)

## 1. Mild (IQ 55–69)

- ✦ Slight delay in development
- ✦ Can manage basic jobs, family life
- ✦ Needs minimal support





## 2. Moderate (IQ 40-54)

- ✧ Clear language and motor delays
- ✧ Needs moderate supervision
- ✧ Can learn basic communication and self-care



### 3. Severe (IQ 25–39)

- ✧ Limited communication
- ✧ Needs constant care & supervision
- ✧ Cannot live independently



#### 4. Profound (IQ <25)

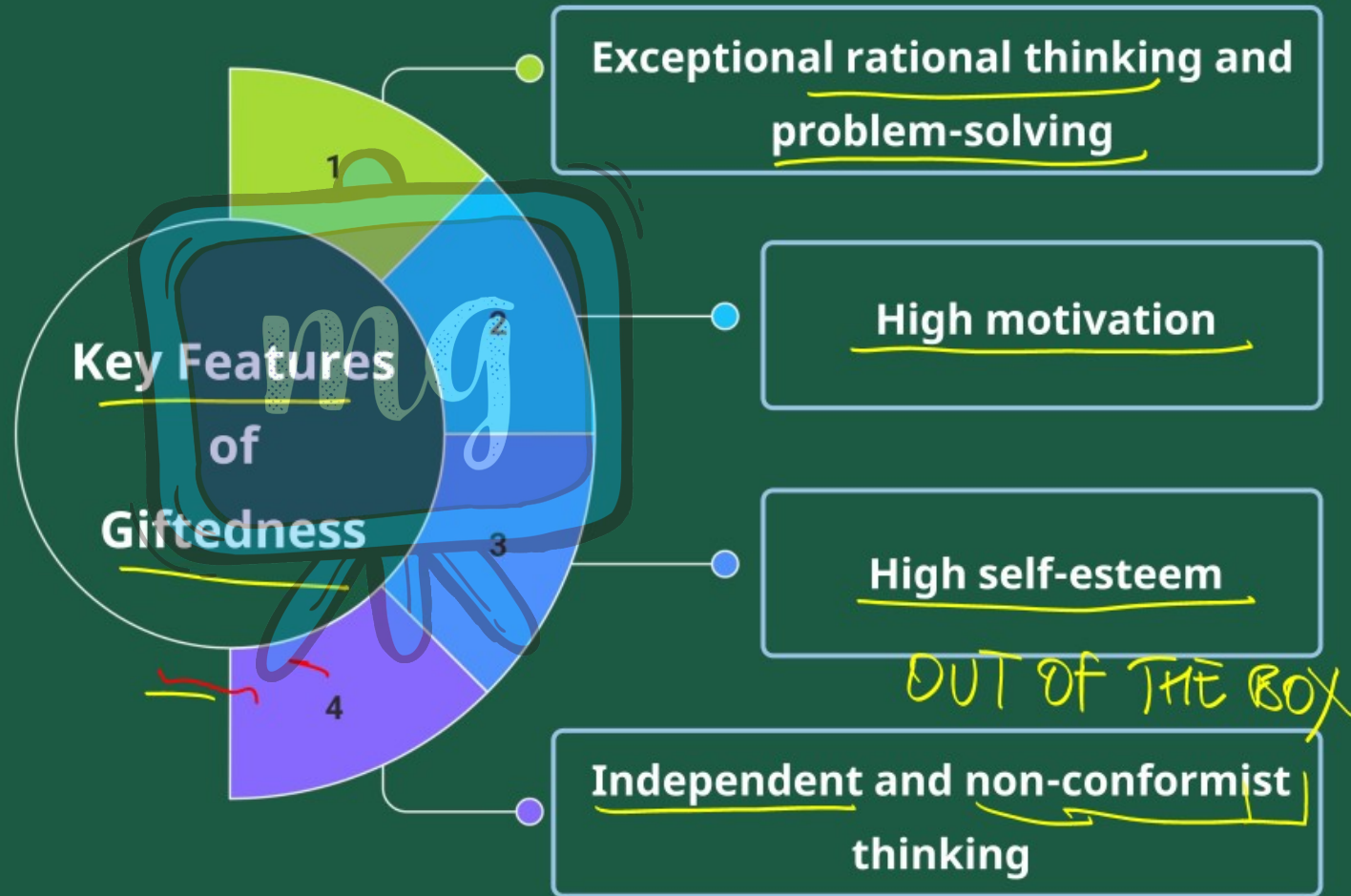
- ✦ Very limited functioning
- ✦ Requires lifelong, 24/7 support
- ✦ Dependent for all needs



## INTELLECTUAL GIFTEDNESS

- First studied in detail by Lewis Terman (1925) through a case study of 1500 children with IQ > 130 to explore intelligence across life domains.
- Giftedness = Exceptional ability in multiple areas; often confused with talent (specific ability).





# LEARNING OUTCOMES



**1** | Nature and Nurture

**2** | IQ Test

**3** | Deficiency and Giftedness

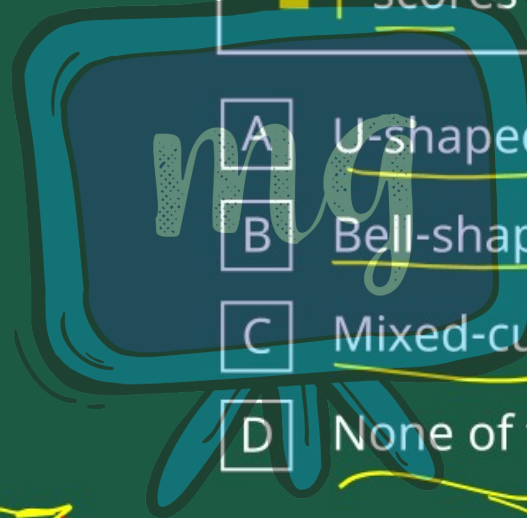
# ASSESSMENT

1

The frequency distribution for the IQ scores forms a bell-shaped curve-

- ☐ A U-shaped curve
- ☐ B Bell-shaped curve
- ☐ C Mixed-curve
- ☐ D None of these

NORMAL



# ASSESSMENT

2

Lewis Terman examined intellectual  
giftedness.

☐ A

True

☐ B

False

A)