

Unit 8: Intelligence

Big Questions: What defines an intelligent person? How can we make personality/intelligence testing a constructive endeavor?

Intelligence and Testing Objectives:

- Trace the origins of intelligence tests including the contributions of Galton, Binet, and Terman.
- Distinguish between aptitude and achievement tests and describe modern tests of mental abilities such as the WAIS and SAT.
- Describe principles of test construction including standardization, reliability, and validity, and explain how they are used to form accurate tests.
- Describe the nature of intelligence and discuss the implications of culture on intelligence.
- Explain whether intelligence should be considered a general mental ability or many specific abilities.
- Discuss the stability of intelligence scores and describe the two extremes of the normal distribution of intelligence.
- Identify the factors associated with creativity and describe the relationship between creativity and intelligence
- Discuss evidence for both genetic and environmental influences on intelligence.

Testing and Individual Differences Overview

An enduring controversy in psychology involves attempts to define and measure intelligence. The Intelligence chapter describes the historical origins of intelligence tests and discusses several important issues concerning their use. These include the methods by which intelligence tests are constructed and whether such tests are valid, reliable, and free of cultural bias. The chapter also discusses research that attempts to assess the neurological basis of intelligence, the stability of intelligence, whether intelligence is a single general ability or several specific ones, and the extent of genetic and environmental influences on intelligence.

Key Terms

Using your own words, write a brief definition or explanation of each of the following. Feel free to be as succinct as possible as long as the definition makes sense to you. Do this after or while reading the assigned pages for class.

1. Intelligence (psychology definition) -
2. Debates over intelligence –
3. Sir Francis Galton –
 - a. Eugenics -
4. Alfred Binet -
 - a. mental age -
5. William Stern -
 - a. Intelligence Quotient (IQ) -
6. Lewis Terman -
7. Problems with the IQ formula? -
8. Factor Analysis -

9. Charles Spearman -

- a. g (general intelligence) -

10. Howard Gardner -

- a. savant -

- b. multiple intelligences -

- i. visual/spatial -

- ii. verbal/linguistic -

- iii. logical/mathematical -

- iv. bodily/kinesthetic -

- v. musical/rhythmic -

- vi. interpersonal -

- vii. intrapersonal -

- viii. naturalist -

11. Robert Sternberg -

- a. Triarchic Theory of Intelligence -

- i. analytical -

- ii. practical -

- iii. creative -

12. creativity -

- a. convergent thinking -

- b. divergent thinking -

13. test construction -

- a. standardization -
 - i. bell curve -
- b. reliability -
 - i. split-halves -
 - ii. alternate forms -
 - iii. test-retest -
 - iv. validity -
- c. achievement test -
 - i. content validity -
 - ii. criterion -
- d. aptitude test -
 - i. predictive validity -

14. head size and intelligence correlation -

15. brain size and intelligence correlation -

16. neurological speed and intelligence correlation -

17. Flynn effect -

18. Wechsler Adult Intelligence Scale (WAIS) -

- a. verbal section -
- b. performance section -

19. Emotional Intelligence (EQ) -

20. Crystallized Intelligence -

21. Fluid Intelligence -

22. Down Syndrome -

a. mental retardation -

23. MENSA -

24. Self-fulfilling prophecy -

25. Schooling effect -

26. Genetic influences of intelligence –

27. Racial group differences in intelligence -

28. Stereotype threat -

29. Gender differences in intelligence -

30. Cultural bias in intelligence tests -