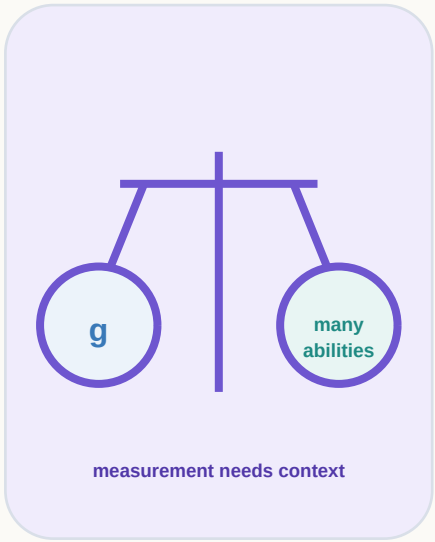
AP PSYCHOLOGY | UNIT 2

TOPIC 2.8

Intelligence and Achievement

Psychologists debate what intelligence is, how to measure it, and how testing conditions and opportunity shape performance.



FROM CONSTRUCT TO USE

DEFINE — what is ability?

→

MEASURE — collect a score

→

INTERPRET — check context

→

SUPPORT — guide learning

BY THE END, YOU SHOULD BE ABLE TO...

1. Compare general intelligence with multiple-ability views.
2. Distinguish standardization, validity, and reliability.
3. Explain fairness, achievement, aptitude, and growth mindset.

BIG IDEA

A test score is evidence about performance in specific conditions - not a complete definition of a person's potential.

1 Defining and measuring intelligence

The theory defines the construct; test quality determines how confidently a score can be interpreted.

ONE GENERAL ABILITY OR MANY?

GENERAL INTELLIGENCE (g)

A broad mental ability that contributes to performance across many cognitive tasks.

COMMON CORE

MULTIPLE ABILITIES

Intelligence includes distinct abilities or domains that may not be captured by one score.

DIFFERENT STRENGTHS

HISTORICAL IQ

mental age / chronological age x 100

Modern IQ scores are norm-referenced, not calculated with this child-focused formula.

THREE QUALITY CHECKS

STANDARDIZATION

Same directions, conditions, scoring rules, and comparison norms.

CONSISTENT PROCEDURE

VALIDITY

The assessment measures or predicts what it claims to measure or predict.

RIGHT TARGET

RELIABILITY

Scores remain reasonably consistent across time, forms, or test sections.

CONSISTENT RESULT

DO NOT CONFUSE

A test can be reliable but invalid: it may produce consistent scores while measuring the wrong construct.

2 Scores need context

Performance reflects ability plus opportunity, experience, test design, motivation, and testing conditions.

A SCORE IS PRODUCED INSIDE A SYSTEM

OPPORTUNITY → resources + schooling

CONDITIONS → design + environment

PERFORMANCE → responses on test

SCORE → requires context

SYSTEMIC INFLUENCES

Poverty, discrimination, educational inequity, language, and access to preparation can affect performance and interpretation.

CONTEXT MATTERS

STEREOTYPE THREAT

Concern about confirming a negative stereotype can increase pressure and reduce performance.

PERFORMANCE EFFECT

FLYNN EFFECT Average IQ scores rose across generations in many places, pointing to broad environmental and societal influences.

MEASURING LEARNING AND POTENTIAL

ACHIEVEMENT TEST

Measures what a person has already learned or knows.

APTITUDE TEST

Attempts to predict future performance or capacity to learn.

GROWTH MINDSET

Believing abilities can develop can support persistence and strategy use. It does not erase barriers, but it can change how learners respond to challenge.