

Module 4: Cognition, Memory, and Intelligence

A17 – Group 2

Cognition

Defined by (Ashcraft and Radvansky, 2010) as:

complex array of mental processes involved in remembering, perceiving, thinking and how these processes are employed.



Cognition

It starts as a sensory – based acquisition of knowledge -> more logical and abstract manner of thinking

1

Elementary

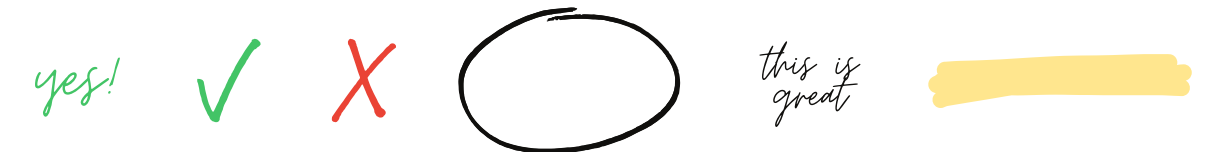
-> Simple Counting of Numbers



2

Highschool

-> Solving problems in algebra, trigo, geomtery



3

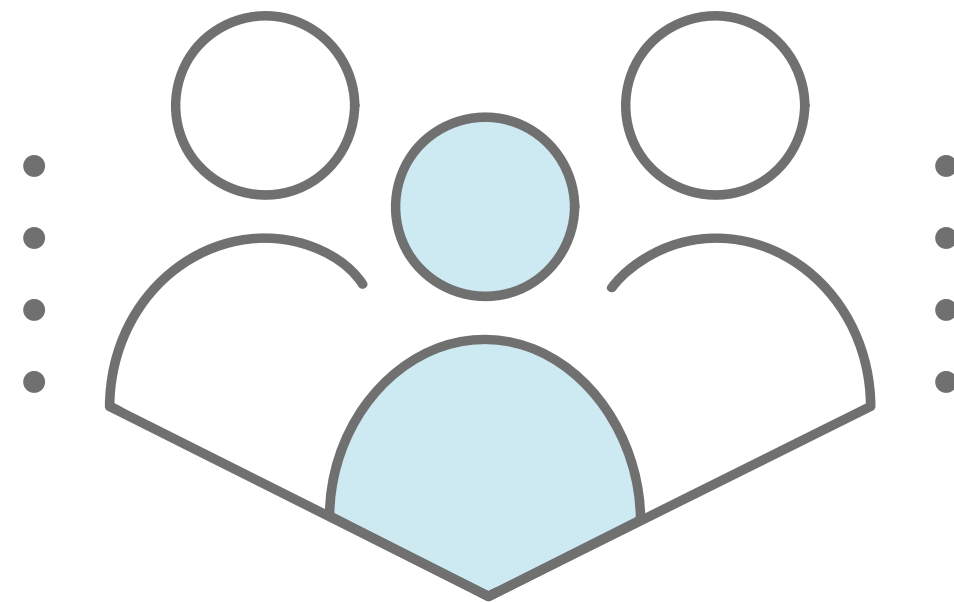
College

-> Compositions, research studies and more



How does it relate to one's self?

- When one understands how he/she thinks, he/she could also achieve a greater understanding of himself and of others



Misconception

People were thought to behave according to how they were conditioned.

- Example:
I want to become a Doctor
because my parents are both
doctors



Reality

An individual is his or her own agent of behavior and change



Example:

Despite the peer pressure, one person still has the choice of either joining his friends on a party or to study for an upcoming exam.

Cognition

1 People are overtly and covertly active individuals, constantly moving and processing information coming from their environment

2 It is up to you on how you would understand the situation at hand:

Some may want to be doctors because both of their parents were and that is also the environment they grew up with, while some would chose to be artists and engineers or any job away from the path that their parents took.



Memory

It is the faculty of the mind through which information is acquired and retained for later use.

Three Levels of memory functions:

1 Sensory

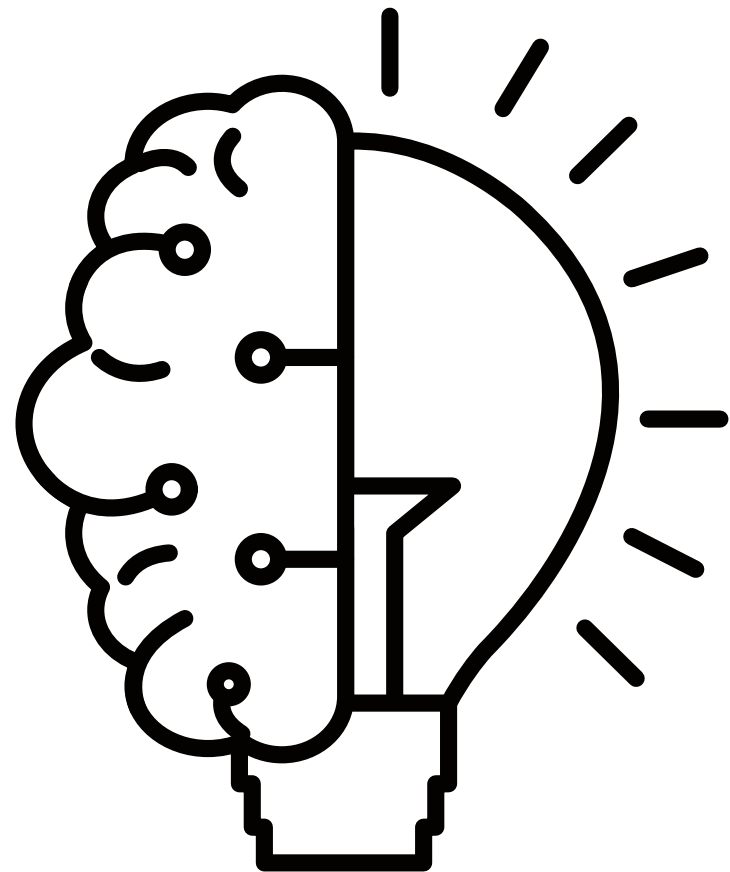
2 Short-term or Working

3 Long-term



Intelligence

Refers to as an individual's capacity for understanding, learning, planning, and problem solving with logic, creativity, and self-awareness.



- 1 It is characterized as the application of knowledge to be able to adjust to the environment.
- 2 Intelligence is often thought of as hereditary rather environmental.
- 3 Individual are born with innate intellectual ability that is harnessed in various context; and intelligence is not confined in the academic context.

Intelligence Theories



HOWARD GARDNER'S THEORY OF MULTIPLE INTELLIGENCE

INTELLIGENCE	DESCRIPTION
Verbal- Linguistic	Ability to analyze information and produce output that involves oral and written language.
Logical- Mathematical	Ability to understand and answer mathematical equations.
Visual- Spatial	Ability to analyzed graphical information.
Musical	Ability to produce and make meaning of different types of sound.
Naturalistic	Ability to identify and distinguish aspects of the natural world.
Bodily-Kinesthetic	Ability to use one's body to create products or solve problems.
Interpersonal	Ability to be sensitive of other people's thoughts and emotions.
Intrapersonal	Ability for self-introspection.

TRIARCHIC THEORY OF INTELLIGENCE



- 1 According to Robert Sternberg, intelligence is defined as “mental activity directed toward purposive adaptation to, selection and shaping of, real-world environments relevant to one’s life.”
- 2 According to this theory, intelligence is a function of how these three aspects are interchangeably used by the individual and up to what level they are use.

Intelligence Theories



TRIARCHIC THEORY OF INTELLIGENCE by Robert Sternberg

INTELLIGENCE	ALTERNATIVE NAMES	DESCRIPTION
Componential	Analytical	Includes abstract thinking and logical reasoning; verbal and mathematical skills.
Experiential	Creative	Divergent thinking and ability to deal with novel situations.
Contextual	Practical	Being “street smart”, ability to apply knowledge to the real world and share or choose an environment.

Intelligence

Both the theory of multiple intelligence and triarchic theory of intelligence explain the nature of intelligence, and the personal and environmental factors that shape it.

