

# How Does Our Thinking Change With Age?

## Module 11 Cognitive Development



---

---

---

---

---

---

---

---

### MODULE OBJECTIVES:

- How does our thinking change as we develop?
- What are Piaget's 4 stages Cognitive Development?

---

---

---

---

---

---

---

---

Infants are born with *primary reflexes*



---

---

---

---

---

---

---

---

---

---

---

### How does thought develop?

❖ Piaget's theory focuses on how people think rather than what they think.

❖ Piaget believed that children play an

\_\_\_\_\_

- Piaget's theories emphasized biology, which allow them to be applied to any culture

---

---

---

---

---

---

---

---

### Piagetian Stage Approach

❖ Piaget claimed that all children pass through a series of four universal stages:

- Sensorimotor (birth to 2 years)
- Preoperational (2 to 7 years)
- Concrete operational (7 to 12 years)
- Formal operational (12 years and beyond)

---

---

---

---

---

---

---

---

Piaget believed that infants spend a LOT of time trying to make sense of the world.

❖ A schema is a \_\_\_\_\_

- a way of \_\_\_\_\_ thoughts and experiences.



---

---

---

---

---

---

---

---

## Schema

❖ Piaget believed that children develop and modify *schema* by two processes:

- Assimilation
- Accommodation

---

---

---

---

---

---

---

❖ Assimilation occurs when individuals incorporate \_\_\_\_\_

\_\_\_\_\_



---

---

---

---

---

---

---

## Wait...I changed my mind!

❖ Accommodation occurs when individuals

\_\_\_\_\_

❖ Example- The baby with a schema of dogs is surprised the first time she sees a cat- it resembles a dog, but meows instead of barks and rubs up against her rather than licking

❖ The baby \_\_\_\_\_ theory to include this new kind of animal

---

---

---

---

---


---

---

Piaget's Stages of Cognitive Development (Part I)

**SENSORIMOTOR STAGE**

(Age 0-2)  
The child begins to interact with the environment.



---

---

---


---

---

---

---

---



This form of thought begins with the infant experiencing the world through their reflexes

Infants construct an understanding of the world by coordinating sensory experiences (such as seeing and hearing) with motor (physical) actions

---

---

---

---

---


---

---

---

Infants begin to interact with people and objects to produce exciting experiences

Realizing that a rattle makes noise-they shake their arms and laugh whenever someone puts a rattle in their hand



---

---

---

---

---

---

---

---

### Why is peek-a-boo fun for babies?



This is a cognitive milestone that develops in the Sensorimotor stage called *Object Permanence*

---

---

---

---

---

---

---

---

### Out of Sight, Out of Mind...

- *Object Permanence* allows infants to now

-This usually develops around 8 months



---

---

---

---

---

---

---

---

### Piaget's Stages of Cognitive Development (Part II)

**PREOPERATIONAL STAGE**

(Age 2-6 or 7)  
The child begins to represent the world symbolically.



---

---

---

---

---

---

---

---



### Preoperational Period (2-7years)

❖ The period in which children become able to represent reality in \_\_\_\_\_

- Words, gestures, pictures

❖ Children think about specifics rather \_\_\_\_\_

---

---

---

---

---

---

---

---



What games did you play at this age?

❖ Children play with objects in new ways and try to represent reality through symbolic thought, by playing “pretend”



---

---

---

---

---

---

---

---

The type of symbolic thinking that children are able to accomplish during this stage is limited.

They still cannot perform what Piaget called *operations*, by which he meant mental representations that are reversible.

---

---

---

---

---

---

---

---

Me, Me, Me...

❖ A key element in this stage is egocentrism

- \_\_\_\_\_  
\_\_\_\_\_

❖ Children in this stage:

- Cannot see \_\_\_\_\_
- Are not able to understand that the world does not exist to meet their needs.

---

---

---

---

---

---

---

---



Preoperational thinking is *animistic*- the belief that all \_\_\_\_\_.

They believe that objects such as the sun, trees, and clouds have motives, feelings, and intentions

- “The clouds are crying”
- “The soap sinks because it is tired”

---

---

---

---

---

---

---

---

Piaget's Stages of Cognitive Development (Part III)

**CONCRETE OPERATIONAL STAGE**

(Age 7-11 or 12)  
The child learns rules such as conservation.



---

---

---

---

---

---

---

---

### Concrete Operational

- ❖ This thinking involves using *operations* and replacing intuitive reasoning with logical reasoning in concrete situations
  - Not hypothetical contexts.
- ❖ A milestone of this stage is Conservation



---

---

---

---

---

---

---

---

### Piaget's Stages of Cognitive Development (Part IV)

#### FORMAL OPERATIONAL STAGE

(Age 12–adulthood)  
The adolescent can transcend concrete situations and think about the future.



---

---

---

---

---

---

---

---

### Formal Operational Stage 12+

- ❖ Formal operational thought is more
  - The individual can think hypothetically, consider future possibilities, and use
- ❖ Children understand that reality is not the only possibility



---

---

---

---

---

---

---

---



The return of egocentrism!

- ❖ Adolescents can display very logical thought, but are not known for this use.
- ❖ Analyzing private thoughts and feelings reflect the enhanced capacity for self-centeredness, which characterizes this period of life.
  - You just don't understand ME!

---

---

---

---

---

---

---

---