

# Theory of Cognitive Development

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The Theory of Cognitive Development formulated by the famous psychologist Jean Piaget is perhaps the most comprehensive and extensive theory that explain the development of human intelligence as a person grows from being an infant into a full grown adult.

According to Piaget's Theory of Cognitive Development, intelligence is brought about by a series of transformations and various states, and that change is necessary for a person's intellect to be enhanced.



The banner features a bright orange background. At the top center is a white icon of a beaker with a flame, followed by the word "EXPLORABLE" in a white, sans-serif font. Below this, the phrase "Quiz Time!" is written in a white, cursive font. The banner contains three white-bordered boxes, each with a different image and a quiz title. The first box shows a pair of red roller skates on a wooden deck, with the text "Quiz: Psychology 101 Part 2" below it. The second box shows a fan of colorful markers, also with the text "Quiz: Psychology 101 Part 2" below it. The third box shows a Ferris wheel at sunset, with the text "Quiz: Flags in Europe" below it. In the bottom right corner of the banner, there is a white text link that says "See all quizzes =>".

## Four Stages of Cognitive Development

Piaget described the development of human intelligence throughout the lifespan of a person. The four stages connote that as a normal person grows older, there is an evident increase in abstraction and complexity in thinking and rationalizing things.

### 1. Sensorimotor Stage (0-2 Years Old)

The sensorimotor stage is the phase that spans from the birth of the individual up to the time when he learns and acquires language. The infant is very reliant to what he sees and hears, and that he would react according to these sensory experiences. This stage also includes the reflexes of the baby which include sucking, grasping and stepping. By the end of the sensorimotor stage, the infant learns object permanence, which is the understanding that an object continues to exist even when he can't see, hear or touch it.

### 2. Preoperational Stage (2-7 Years Old)

In this stage, the child is more engaged with play, and uses preoperatory thought, which is the process by which the child represents objects through the use of words, scribbles, drawings and pictures. The mental

reasoning of the child is developed in this stage, but he still cannot perform operations. Egocentrism (self-centeredness) and animism (belief that inanimate objects can move or talk) are evident. Conservation is the main task in this stage. When you present two identical glasses, Glass A and Glass B, to a child and pour equal amounts of water, he would say that they have indeed the same amount of water. However, when you pour the contents of one glass to another glass, Glass C, which is thinner and taller, the child would say that Glass A and Glass C now contains different amounts of water. Failure of this task connotes that the child is still in preoperational stage.

### **3. Concrete Operational Stage (7-11 Years Old)**

This stage starts when the child begins to use logic appropriately. The child is able to classify objects (classification), sort them according to their attributes (seriation) and divide a problem into several components in order to solve it (decentering).

### **4. Formal Operational Stage (11 Years and Above)**

This stage is the hallmark of abstract thinking and usage of hypothetical rationalization. The child is able to systematically look into problems and test several solutions.

## **Accommodation and Assimilation**

Piaget's Theory of Cognitive Development included the concepts of accommodation and assimilation. He believed that there are pre-existing cognitive schemas in each individual. Because of the process of assimilation, we tend to take the relatively new information unknown to us from our environment and fit them into these innate cognitive patterns. This can be compared to finding the key that would perfectly fit the lock's hole so that it would be opened.

On the other hand, the process of accommodation states that we get the information from the environment, then change our own cognitive patterns so that the information we got will suit our schemas. In the example we had mentioned, the process of accommodation is like changing the shape of the lock's hole in order for the key to fit in it.

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