

Editorial Note on Cognitive Development

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Editorial

Cognitive development is the process through which a person observes, thinks about, and comprehends his or her environment as a result of the combination of hereditary and learned elements. Information processing, intellect, reasoning, language development, and memory are all components of cognitive development.

What is the significance of cognitive development? Children's cognitive development allows them to pay attention and think about the world around them. The cognitive development of a kid can be influenced by everyday events.

4 Stages of cognitive development

Jean Piaget postulated four developmental phases for humans in his theory of cognitive development:

- The sensorimotor stage: birth to 2 years
- Preoperational stage: ages 2 to 7
- Concrete operational stage: ages 7 to 11
- Formal operational stage: ages 12 and up

Piaget argued that children participate actively in the learning process, functioning as mini-scientists conducting experiments, making observations, and learning about the environment. Kids constantly add new knowledge; expand on current knowledge, and change previously held concepts to fit new information as they interact with the world around them.

How did Piaget come up with his theory?

Piaget was born in the late 1800s in Switzerland and was an early learner, writing his first scientific paper at the age of 11 years old. When he worked as an assistant to Alfred Binet and Theodore Simon to standardise their renowned IQ test, he had his first exposure to children's intellectual growth.

Piaget's fascination with children's cognitive development was sparked by his observations of his nephew and daughter. These findings backed up his theory that children's minds were not just little replicas of adult minds.

Children were primarily viewed as tiny replicas of adults up to this time in history. Piaget was one of the first to recognise that children's thinking differs from adults' thinking.

Instead, he claimed that intelligence is something that develops and expands throughout time. He claimed that older children do not simply think faster than younger youngsters. Instead, there are qualitative and quantitative distinctions between early children's and older children's thinking.

He came to the conclusion, based on his observations, that

youngsters are not less bright than adults; they simply think differently. "Only a genius could have conceived of it," Albert Einstein said of Piaget's findings.

The cognitive development of children is described by Piaget's stage theory. Changes in cognitive processes and capacities are part of cognitive growth. 2 Early cognitive developments, according to Piaget, include action-based processes that advance to changes in mental functions later.

The Stages

Piaget established a stage theory of intellectual development based on his observations of his children, which comprised four different stages:

The sensorimotor stage:

Ages: Birth to 2 Years

Major Characteristics and Changes in Development: The newborn learns about the world through their movements and experiences.

- Basic behaviours like as sucking, gripping, seeing, and hearing help children learn about the world.
- Even when objects can't be seen, infants learn that they exist (object permanence)
- They are distinct from the people and objects in their environment.
- They understand that their activities have the potential to affect the world around them.

The preoperational stage:

Ages: 2 to 7 Years

Major Characteristics and Developmental Changes:

- Children start thinking symbolically and learn to express items with words and drawings.
- At this age, children are egocentric and have difficulty seeing things from other people's perspectives.
- While they are improving their language and cognitive skills, toddlers still have a tendency to think in very concrete terms.

The concrete operational stage:

Ages: 7 to 11 Years

Major Characteristics and Changes in Development

- Children learn to think logically about tangible experiences throughout this period.

- They start to grasp the notion of conservation, such as the fact that the amount of liquid in a short, broad cup is equivalent to the quantity in a tall, slender glass.
- Their reasoning grows more logical and ordered, but their thinking remains highly tangible.
- Inductive logic, or reasoning from specific knowledge to a general concept, is taught to children at an early age.

The formal operational stage:

Ages: 12 and Up

- At this age, the teenager or young adult learns to reason about hypothetical situations and think abstractly.
- The concept of abstraction arises.
- Teenagers begin to consider moral, philosophical, ethical, social, and political concerns that necessitate the use of theoretical and abstract reasoning.
- Begin to use deductive logic, which is the process of reasoning from a general concept to specific data.

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