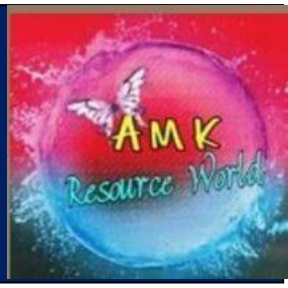
Daily Digi Page

AMK Resource World



Piaget's Theory of Cognitive Development

Jean Piaget's theory of cognitive development suggests that intelligence changes as children grow.

A child's cognitive development is not just about acquiring knowledge, the child has to develop or construct a mental model of the world. Cognitive development occurs through the interaction of innate capacities (nature) and environmental events (nurture), and children pass through a series of stages.

Piaget's Stages are

- **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

Stage	Age	Goal
Sensorimotor	Birth to 18-24 months	Object permanence
Preoperational	2 to 7 years old	Symbolic thought
Concrete operational	Ages 7 to 11 years	Logical thought
Formal operational	Adolescence to adulthood	Scientific reasoning

Sensorimotor Stage

Major characteristics are

- At about 8 months, the infant will understand the permanence of objects and that they will still exist even if they can't see them and the infant will search for them when they disappear.
- Realize that they are separate beings from the people and objects around them
- Know the world through movements and sensations

- Learn about the world through basic actions such as sucking, grasping, looking, and listening
- Learn that things continue to exist even when they cannot be seen
- Realize that their actions can cause things to happen in the world around them

Preoperational Stage

Major Characteristics are

- Getting better with language and thinking, but still tend to think in very concrete terms
- Toddlers and young children acquire the ability to internally represent the world through language and mental imagery
- Begin to think symbolically and learn to use words and pictures to represent objects
- Tend to be egocentric and struggle to see things from the perspective of others

Concrete Operational Stage

Major Characteristics are

- Thinking becomes more logical and organized, but still very concrete
- Begin to think logically about concrete events
- Concrete operations are carried out on things whereas formal operations are carried out on ideas. Formal operational thought is entirely freed from physical and perceptual constraints.
- Children begin to understand the concept of conservation; understanding that, although things may change in appearance, certain properties remain the same
- Begin to understand the concept of conservation; that the amount of liquid in a short, wide cup is equal to that in a tall, skinny glass, for example
- Begin using inductive logic, or reasoning from specific information to a general principle

Formal Operational Stage

Major Characteristics are

- Begins to use deductive logic, or reasoning from a general principle to specific information
- Begins to think abstractly and reason about hypothetical problems
- Begins to think more about moral, philosophical, ethical, social, and political issues that require theoretical and abstract reasoning

Schemas

A schema describes both the mental and physical actions involved in understanding and knowing. Schemas are categories of knowledge that help us to interpret and understand the world.

Assimilation

The process of taking in new information into our already existing schemas is known as assimilation

Assimilation coccurs when the new experience is not very different form previous experiences of a particular object or situation we assimilate the new situation by adding information to a previous schema

Accommodation

The ability to change existing schemas in light of new information; this process is known as accommodation

Psychologist Jean Piaget defined accommodation as the cognitive process of revising existing cognitive schemas, perceptions, and understanding so that new information can be incorporated.

Equilibration

As children progress through the stages of cognitive development, it is important to maintain a balance between applying previous knowledge (assimilation) and changing behaviour to account for new knowledge (accommodation).

Equilibrium occurs when a child's schemas can deal with most new information through assimilation. However, an unpleasant state of disequilibrium occurs when new information cannot be fitted into existing schemas (assimilation).

PRACTICE QUESTIONS

Which of the following is an example of a cognitive scheme?
(a) Sorting by colour
(b) Grasping a rattle
(c) Looking at an object
(d) Sucking a pacifier

According to Piaget, the incorporation of new information into existing schemes is called :
(a) Operational thought
(b) Equilibration
(c) Accommodation
(d) Assimilation

Jean Piaget collected data to develop his theory of cognitive development by
(a) doing literature review on cognitive development.
(b) discussing with many of the parents.
(c) observing his own children.
(d) experimenting with children in the laboratory.

Mohan likes to explore his grandparents' house through touch. One day, he touches a hot iron and burns his hand. Mohan learns that although some objects are safe to touch, hot irons are not. According to Piaget, this is an example of
(a) Assimilation
(b) Accommodation
(c) Negative reinforcement
(d) Positive reinforcement

According to Piaget, during the first sensorimotor sub-stage, infants' behaviours are :
(a) Reflexive
(b) Maladaptive
(c) Unchanging
(d) Reinforced

To understand the relationships among relatives on a family tree, children need to be able to use the skill of :
(a) Seriation
(b) Decoding
(c) Classification
(d) Mental reversibility

Which of the following is one of the elements of conservation in Piaget's theory of development?
(a) Identity
(b) Operation
(c) Assimilation
(d) Accommodation

Children assumes about imaginary audiences in which stage of development and what is it called?
(a) Sensory motor—Goal directed action
(b) Pre-operational—Collective monologue
(c) Concrete operational —Reversibility
(d) Formal operational—Adolescent ego-centrism

When Shalini was 5 months old, she looked at a toy train, but when her view of the train was blocked, she did not search for it. Now that she is 9 months old, she does search for it, reflecting her development of
(a) Object permanence
(b) Self-differentiation
(c) Assimilation
(d) Schemata

While talking to his grandmother on the phone, Manoj suddenly exclaims, "Oh, look at that beautiful flower!" When his grandmother asks him to describe the flower, Manoj says, "Out there, out there! Right there, Grandma!" He finally gets frustrated and disconnects the phone. This is an example of
(a) Centration
(b) Ego-centrism
(c) Intuitive thought
(d) Symbolic function

Anita was asked to classify different kinds of flowers. She classifies them only on the basis of one parameter, which is colour. Anita did it because of
(a) Ego-centrism
(b) Centration
(c) Accommodation
(d) Operationalism

The zone of proximal development is the level of development
(a) out of the zone of where the student is presently functioning.
(b) just below where the student is presently functioning.
(c) just above where a student is presently functioning.
(d) just exactly where the student is presently functioning.

Number, language etc. are
(a) Real tools
(b) Symbolic tools
(c) Actual tools
(d) Technical tools

Parents are more likely to promote higher levels of moral reasoning in their children by
(a) conversation about value issues.
(b) telling their children how to act.
(c) punishing them for inappropriate behaviour.
(d) giving books to read on moral behaviour.

Sunita knows that when she goes out to her relative's house she has to behave in a certain manner. Such standards are an example of
(a) Moral rule
(b) Conventional rule
(c) Personal rule
(d) Esteem

When a child sees a rule in absolute form, it is known as :
(a) Moral reasoning
(b) Moral dilemma
(c) Moral realism
(d) Morality of cooperation

The thinking process involved in taking decisions about what is right and what is wrong is knows as
(a) Moral reasoning
(b) Moral dilemma
(c) Moral realism
(d) Morality of cooperation