

COGNITIVE DEVELOPMENT THEORY (Jean Piaget)

Jean Piaget, a Swiss psychologist was particularly concerned with the way thinking develops in children from birth till they become young adults. To understand the nature of this development, Piaget carefully observed the behaviour of his own three kids. He used to present problems to them, observe responses slightly after the situations and again observe their responses. Piaget called this method of exploring development clinical interview.

Piaget believed that humans also adapt to their physical and social environments in which they live. The process of adaptation begins since birth. Piaget saw this adaptation in terms of two basic processes: Assimilation and Accommodation.

Assimilation. It refers to the process by which new objects and events are grasped or incorporated within the scope of existing schemes or structures.

Accommodation. It is the process through which the existing schemes or structure is modified to meet the resistance to straightforward grasping or assimilation of a new object or event.

According to Piaget there are 4 basic elements in development:

1. Maturation.
2. Experience.
3. Social transmission (learning through language, schooling or teaching by parents)
4. Equilibrium.

The important concept of Piaget's theory of cognitive development is the fixed progression from one stage to another. Piaget viewed cognitive growth as a progressive change. Growth varies from person to person. Piaget assumed that it follows a fixed sequence.

Stages of cognitive development.

Piaget has identified 4 sequential stages through which every individual progresses in cognitive development. Each stage has an age span with distinctive learning capabilities. This would be helpful in framing curriculum. And understanding of this development sequence is indispensable for parents as well as for teachers because these influences a great deal during infancy, childhood and adolescence. The 4 developmental stages are discussed below

- 1. Sensori-Motor Stage.** This stage begins at birth and lasts till the child is about 2 years old. It is called Sensori-Motor Stage, because children's thinking involves seeing, hearing, moving, touching, testing and so on. This stage marks a transitional stage for a person

from a biological to a psychological being. In the first few weeks of life the baby's behaviour consists simply of reflex responses, such as sucking, stepping and grasping. Later the reflex disappears and the baby chooses what and when to grasp.

During this period the infants attain the **concept of object permanence**. This refers to the understanding that objects and events continue to exist even when they cannot directly be seen, heard or touched. Till this kind of understanding is achieved, an object that is out of sight remains out of mind and therefore, becomes non-existent.

A second major accomplishment in the Sensori-Motor period is learning to reverse actions. E.g., we give a toy to a child that has ten detachable parts. We detach all parts. Through trial and error, the child gradually learns to attach all the parts of the toy.

2. **Pre-Operational Stage (2 to 7 Years)**. This stage is called Pre-Operational because the children have not yet mastered the ability to perform mental operations. Children's thinking during this stage is governed by what is seen rather than by logical principles. Following are the accomplishments of Pre-Operational Stage:
 - a. **Semantic function**. During this stage the child develops the ability to think using symbols and signs. Symbols represent something or someone else; for example, a doll may symbolize a baby, child or an adult.
 - b. **Egocentrism**. This stage is characterized by egocentrism. Children believe that their way of thinking is the only way to think.
 - c. **Decentering**. A pre-operational child has difficulty in seeing more than one dimension or aspects of situation. It is called decentering.
 - d. **Animism**. Children tend to refer to inanimate objects as if they have life-like qualities and are capable of actions.
 - e. **Seriation**. They lack the ability of classification or grouping objects into categories.
 - f. **Conservation**. It refers to the understanding that certain properties of an object remain the same despite a change in their appearance.
3. **Concrete Operational Stage (7 to 11 years)**. At this stage a child is concerned with the integration of stability of his cognitive systems. He learns to add, subtract, multiply and divide. He is in a position to classify concrete objects. In short, children develop the abilities of rational thinking but their thinking is tied to concrete objects.
4. **Formal Operational Stage (11 & above)**. This type is characterised by the emergence of logical thinking and reasoning. Other important cognitive attainments during this period are: the ability to think about the hypothetical possibilities and to solve problems through logical deductions and in a systematic manner.

Educational Implications.

Piaget's concept of development process of understanding working of the child's mind can be helpful to those who are involved in teaching and other educational practices. He says that children pass through number of stages before the age of 14 years and a lot of care should be taken in child's training and development.

Most of the teachers are now in agreement with him that it is waste of time to take those things to children which cannot be experienced through sense organs. When the children form many direct

experiences then only they are in a position to understand the abstract ideas and concept. Piaget does not like to looking at education, therefore, the teacher must always make an effort to orient education around the child.

The most important function of school is to provide good stimulating environment within the school for the proper development of their mental abilities. The school should provide good library opportunities for free discussions and community services. The needs of adolescents should be given proper place on the school curriculum.

Adolescents should be given opportunity for the development of their creative abilities through music, dance, art and crafts. They should be provided guidance as regarded their individual educational and vocational problems.

Q. Define emotions?

R. The word 'emotion' has been derived from the Latin word 'emovere' which means to 'stir-up', 'to agitate', or 'to excite'. Thus emotion is the stirred up state of mind. Each experience of man has three processes – cognitive, affective and conative. Thinking is cognition, feeling is affection and acting is conation. We think, we feel and we act. Feeling is called affective state of mind and also emotion.

Woodworth. "Emotion is moved or stirred up state of feeling that is the way it appears to the individual himself. It is a disturbed muscular and glandular activity that is the way it appears to an external observer".

Crow and Crow. "An emotion is an affective experience that accompanies generalized inner adjustment, mental and physiological stirred up states in the individual and that shows itself in his overt behaviour".

Mc Dougall. "Emotion is a mode of experience that accompanies the working of an instinctive act".

Q. What changes take place during the arousal of emotions?

R.

1. There is an increase in heart beat because there is increase in blood circulation during emotional experience.
2. There is marked change in the blood pressure of the person. It may rise or fall down.
3. There is also marked change in respiration. It is fast or slow.
4. In emotions like anger, fear, anxiety etc, gastrointestinal changes takes place and digestion is affected.
5. Facial expressions undergo change.
6. Muscles become tense.

Q. What are the characteristics of the emotions?

R.

1. **Affection play a key role in emotions.** Every experience has three modes – cognition, affection and conation. It is the affection mode of mind that dominates the emotion.
2. **Emotions accompany instincts.** Emotions occur when associated with some instinct or biological drive.
3. **Emotions have hedonic tone.** Emotions are accompanied by pleasure or pleasantness. But they give us pain also.
4. **Universal acceptance.** Emotions are found in everybody. There are no exceptions. They are found in young and old.
5. **Varying intensity.** The expression of emotion and its intensity may vary from person to person on the basis of levels of education, training and intelligence.
6. **Emotions have wide range of degree.** Emotions are aroused at all stages of mental development. An emotion can last for a very short moment but it can persist for a long time also.
7. **Emotions and reasoning do not go together.** During emotional outbursts, thinking and reasoning power are decreased.

Q. Explain emotion of fear? What are its causes and effects? How can it be removed?

R. Fear. Fear is one of the basic emotions found in an individual. It accompanies the instinct of escape and appears at a very early age during infancy. Fear as an emotion is not bad because it has its own value and is essential to some extent.

Causes of fear. Fear is aroused when there are events with which the individual is unable to cope. Parental fears, threats from adults, imaginative stories contribute to the development of fear in children. His response is that of shrinking or retreating from such fear provoking situation. Generally the children express their fear by body signs of trembling, running or crying.

Effects of fear. Under the influence of fear there occur physiological and psychological changes. Face turns pale, a person shivers, heart beats quickly, rate of respiration increase and the mouth gets dried up. the blood pressure of a person rise or fall down. Muscles become tense and anxieties increase. It retards sound physical and mental growth.

Means of removing fear.

1. First of all, the illogical fears of the children should be removed by giving them complete insight into and complete knowledge of the objects or situations which create fear in them.
2. The child's attention is drawn to the interesting features of the feared object.
3. Thirdly, the fear of children can be removed by the method of 'disuse'.
4. Teacher should be sympathetic.
5. Avoid use of corporal punishment in the school.

Value of fear. From educational point of view, fear has a value also because it prevents an individual from taking foolish ventures.

1. It teaches children to respect teachers.
2. It teaches children to respect school rules and maintains discipline.
3. Students learn out of fear.
4. They do home task out of fear.

Q. Explain emotion of anger? What are its causes? How can it be controlled?

R. Anger. Anger is a common emotion found among children. It accompanies the instinct of combat. It may be in the form of extreme rage or resentment or at times it may be expressed in the milder forms of irritation or annoyance.

Causes.

1. Blocking of the activities in progress lead to angry out-bursts.
2. Difficult assignments, uninteresting lesson and tiresome jobs also give rise to the emotion of anger.
3. Favouritism on the part of some teachers and parents for selected few, interference with set of habits, physical illness, fatigue and hunger are other cause.
4. Conflicts with authority also arouse anger.

Value of anger.

1. Under the influence of anger, children frequently expresses their thoughts, wishes and criticize others. In this way we can understand their grievances because it provides us an insight into the working of their minds.
2. Anger arouses individuals to work. It improves them to face difficult situations.

How to control anger.

1. It is wise for teachers and parents to avoid anger arousing situations.
2. Better environment should be created for the child both at home and school so that anger provoking situations are avoided.
3. Provocation in any form to the child should be minimized to the possible limits.
4. The child should be praised for the good work in which he is proficient.

Q. Define affection? What are its good and bad effects? Write its educational importance?

R. Affection. Affection is important emotion, which plays a vital role in child's life. As soon as child is born in a family, he gets the closeness of his mother as well as from other members. This closeness shown towards him by others develops in him some emotional attachments. These emotional attachments take the shape of affection. Under the influence of affection, the child experiences happiness, satisfaction and pleasure. Due to affection, sometimes the feelings of tolerance or self-sacrifice are also observed in him.

The experiences of affection are expressed in various forms. The child begins to cry at the separation of his parents. He expresses his affection by embracing and kissing. But the expression of affection mostly depends on the norms of society.

Effects of affection. There are two types of effects of affection, which are mentioned below:

Good effects.

1. **Source of strength.** An individual can perform unusual work under the influence of affection. This proves a motivating force for achieving the goal.
2. **A source of social adjustment.** The emotion of affection creates close ties with one another and thus the child begins to feel the need of presence of others.
3. **A source of well adjusted life.** From the very childhood he learns the ways and means to adjust himself with others. Affection paves the way for this.
4. **Avoid frustrations.** The individual who enjoys the affection of their parents and other lead a better and happier life.
5. **It develops the sense of service.** The emotion of affection compels child to render his valuable service to others.

Bad effects. Love and affection have damaging effects also. The excessive love of parents and teachers develops the habit of spoon-feeding among children. They lack self-dependency in them. Similarly, the children, who do not enjoy the affection of their parents and others, become frustrated and as such they develop many ill tendencies in them. They also develop negative attitude towards their own worth. Even a slight criticism develops in them an intense anxiety.

Educational implications. The emotion of love and affection has a key role to play in the field of education. It is advised by educationists, that teachers should adopt the following means while teaching.

1. The teachers should develop in themselves a sympathetic attitude towards his students.
2. The teachers should pay special attention towards those children who are deprived of love and affection of their homes.
3. The teachers should try to utilize the emotions of love and affection for constructive purpose.
4. The teachers should try to avoid punishment as far as possible. He should deal with love and affection.

Q. Define jealousy?

R. Jealousy is a universal emotion and is closely related to the emotion of anger. It is a normal response to actual, supposed or threatened loss of affection – a state in which a jealous person feels insecure. It is a matter of common experience that with the arrival of a new child, the first child usually becomes jealous because he feels that his parental affection of which he was the sole recipient is shared. He feels himself in a state of competition with another child.

According to Watson, "Jealousy is a socially oriented emotional response compounded of anger, fear and love. It is called forth by those situations where the child anticipates loss of affection"

In the state of jealousy the child reverts to infantile behaviour such as bed-wetting, thumb sucking, refusal to eat, pretending to be ill etc. He may also hit the new born baby.

Jealousy, when becomes intense is very harmful. Hence it is the duty of parents and teachers to take appropriate measures to control this tendency in children.

Controlling jealousy:

1. They should locate the cause of such behaviour and treat it accordingly.
2. Parents and teachers should distribute their attention equally.
3. Teacher should help the child to solve his problem.
4. Mother should prepare the child regarding the arrival of another child in the family.

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