

UNIVERSITY OF KHEMIS MILIANA 01 /15 /23

Level : 3rd Year

Prof :D.MEZAINI

SUBJECT :ENGLISH

English Exam

Cognitive Development

Piaget's theory application to intelligence

Intelligence is developed through a process of active exploration by the child, where they manipulate objects (and later, ideas) to understand their properties. This process is called performing operations. The child's first schemas are based on their own body and are purely automatic (involuntary) reflexes such as sucking, crying, grasping or kicking, known as body schemas. After a while, the infant learns to control their body to satisfy their needs more effectively – for example, reaching out and smiling to get attention, leading to a feeding or play session.

Children develop their understanding of the world by the twin processes of **assimilation** and **accommodation**. When a child meets a new situation, they are thrown into a state of disequilibrium. To overcome this uncomfortable feeling, they must perform an operation to help increase their knowledge of the situation and overcome it. New information gained from the operation is assimilated (taken on board), and the structure of the child's schemas is accommodated (changed) to make use of the incoming knowledge. Now that the child understands the situation, they feel content again and return to a state of **equilibrium**.

Cognitive development occurs when our schemas no longer fit the environment, causing a state of disequilibrium.

Adaptation to the environment then occurs through two complementary processes: assimilation and accommodation. Piaget believed that children are instinctively driven or motivated to seek equilibrium. This is why they constantly play with objects and ask questions so that they can develop new schemas that help them understand the world around them.

Piaget versus Vygotsky

Piaget believed that cognitive development was a result of two influences: *maturation* and the environment. Maturation refers to the effects of the biological process of ageing. As children get older, certain mental operations become possible. At the same time, through interactions with the *environment*, their understanding of the world becomes more complex.

Vygotsky believed that cultural influences were the key driving force in cognitive development. Such cultural influences come through interactions with others and through language.

The differences between Piaget's and Vygotsky's approaches reflect differences between the two men. Vygotsky was a Communist who believed in the power of community, and thus valued the role of society in the development of the individual;

Piaget was a product of individualist European society.

Apart from their different cultural backgrounds, the two men may also represent rather different kinds of learner: Piaget's child is an introvert, whereas Vygotsky's child is an extrovert, and this may be a reflection of the men themselves (Miller, 1994).

Thus the two views can be reconciled because they are talking about different styles of learning and different kinds of learner. It is also possible to reconcile the theories by taking the view that they are not that different at their central core (Glassman, 1999). If one contrasts these theories with others in psychology, such as those by Freud, Pavlov or Skinner, we can see that there are similarities. They both place cognition at the centre of the theory; both emphasise the complex interactionist nature of development; both see abstract, scientific thought as the final stage of development; and both see the learner as active rather than passive.

QUESTIONS :

1. Using your previous knowledge find out which Piaget's cognitive stage is described by each of the following statements .

A. At this stage, the child has the ability to think using abstract thought, with logic and reason.(.....).

B. At this stage, a child can eventually carry out deliberate actions, and object permanence is a key outcome.(.....).

- C.**At this stage, the child starts to use language; they have an inability to conserve and are egocentric.(.....).
- D.**At this stage, a child is able to conserve but they still lack the ability to think using abstract thought.(.....).

2. Using the table below match the words or phrases (1-6) with their corresponding definitions (A-F).

1. Assimilation, 2. Equilibrium,3. Accommodation,4. Adaptation,5. Disequilibrium, 6. Schema

A.is an imbalance when encountering information that requires us to develop new schemas.

B.is the process of acquiring new knowledge by relating it to existing knowledge.

C.is the process of changing the way in which the person acts or the way he sees the world.

D.is when existing schemas are capable of explaining what a child is experiencing, a state of balance.

E.is using the assimilation and accommodation process to understand the world.

F. mental structures or a cluster of related facts usually based on previous experiences, and used to generate future expectations.

1	2	3	4	5	6

SECTION B — Multiple-choice questions

Choose the response that is **correct** or that **best answers** the question.

A correct answer scores 1, an incorrect answer scores 0.

Marks will **not** be deducted for incorrect answers.

No marks will be given if more than one answer is completed for any question.

Question 1

Ahmed is not able to describe what his fellow pupils can see from another side of the classroom.Ahmed demonstrates :

A. conservation.

B. object permanence.

C. egocentrism

D.adaptation

Question 2

Malik knows to look for his toy car when it ends up rolling under the chair.

A. conservation.

B. object permanence.

C. egocentrism

D.adaptation

Question 3

Sadie understands that her sister has the same amount of milk as her even though it is in a taller glass.

A. conservation.

B. object permanence.

C. egocentrism

D.adaptation

Question 4

Which one of the following statements describes what Piaget meant by ‘object permanence’?

A. Understanding that something exists even when it’s not physically present.

B. Understanding that something has the same properties even when it appears to change form.

C. Understanding that something in a sub-group must also belong to the larger grouping.

D. Understanding what other people can see when they look at something.

Question 5

The correct sequence of the stages of cognitive development described in Piaget’s theory is

A. sensorimotor, concrete operational, pre-operational, formal operational.

B. sensorimotor, formal operational, concrete operational, pre-operational.

C. sensorimotor, pre-operational, concrete operational, formal operational.

D. pre-operational, sensorimotor, formal operational, concrete operational.

Question 6

According to Piaget, logical and abstract thinking are not consistently apparent until an individual has reached the _____ stage.

- A.** sensorimotor
- B.** pre-operational
- C.** formal operational
- D.** concrete operational

Question 7

Maturation means that

- A.** physical development and psychological development occur independently of one another.
- B.** the brain and nervous system need to be sufficiently developed before someone can think, feel or behave in a particular way.
- C.** psychological development does not occur in a sequential way.
- D.** if someone practises any skill they will become competent at that skill.

SECTION C :

Fill in each blank with the appropriate word or expression

zone of proximal development (ZPD) cognitive social interactions

scaffolding gap think social interactions

Vygotsky agreed with Piaget that children 1_____ differently from adults. Vygotsky emphasised the role of others, 2_____ and context. He also believed that language is an important part of 3_____ development.

Vygotsky stated that cognitive development stems from 4_____.

Vygotsky also identified the 5_____, which is the 6_____ between the child's current competence level (what they can already do independently) and their potential development level (what they could do with guidance from someone else). Another important feature in understanding ZPD is 7_____; this is where adults and more advanced peers help the child to cross their ZPD.