

Test Bank for Educational Psychology 6th Santrock

CHAPTER 2

True/False Questions

1. The pattern of biological, cognitive, and socioemotional changes that begins at conception and continues through the life span of an individual is called development.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page: 29. Development is the pattern of biological, cognitive, and socioemotional changes that begins at conception and continues through the life span.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

2. During middle and late childhood, achievement typically becomes an important theme of children's lives.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page: 31. During middle and late childhood, achievement becomes an important theme as children increase their self-control.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

3. Early adulthood involves the transition from childhood to adulthood.

Answer: False

Bloom's Taxonomy: Knowledge

Feedback: Page: 31. Adolescence involves the transition from childhood to adulthood.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

4. Developmentalists who emphasize that development is influenced by nurture often describe development as a series of distinct stages, like the change from caterpillar to butterfly.

Answer: False

Bloom's Taxonomy: Knowledge

Feedback: Page 33. Developmentalists who emphasize that development is influenced by nature often describe development as a series of distinct stages, like the change from caterpillar to butterfly. Most developmentalists recognize that it is unwise to take an extreme position on the issues of nature and nurture, continuity and discontinuity, and early and later experiences.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

5. Splintered development refers to the circumstances in which development is uneven across domains.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page 34. Splintered development refers to the circumstances in which development is uneven across domains. One student may have excellent math skills but poor writing skills. Within the area of language, another student may have excellent verbal language skills but not have good reading and writing skills.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

6. The cells in the brain responsible for processing information stop dividing early in childhood. Brain development is not influenced by outside experiences or actions.

Answer: False

Bloom's Taxonomy: Knowledge

Feedback: Page: 35. The recent scientific view is that brain has plasticity and its development depends on contexts and experiences children engage in.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

7. The neuroconstructivist view of cognitive development rejects the theory that the human brain has plasticity.

Answer: False

Bloom's Taxonomy: Knowledge

Feedback: Page: 35. In the increasingly popular neuroconstructivist view, (a) biological processes (genes, for example) and environmental experiences (enriched or impoverished, for example) influence the brain's development; (b) the brain has plasticity (the ability to change) and depends on experience; and (c) development of the brain is linked closely with cognitive development.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

8. A teaching implication of brain science is that children will be better able to focus and maintain attention as myelination progresses.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page: 36. Myelination in brain areas important in focusing attention is not complete until about 10 years of age. The implications for teaching are that children will have difficulty focusing their attention and maintaining it for very long in early childhood, but their attention will improve as they move through the elementary school years.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

9. In the context of brain development, the limbic system matures much later than the prefrontal cortex.

Answer: False

Bloom's Taxonomy: Knowledge

Feedback: Page: 37. In the context of brain development, the limbic system matures much earlier than the prefrontal cortex and is almost completely developed in early adolescence. The limbic system structure that is especially involved in emotion is the amygdala.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

10. Piaget's stages of cognitive development demonstrate that cognition is qualitatively different in one stage compared with another.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page: 41. Piaget's stages of cognitive development demonstrate that cognition is qualitatively different in one stage compared with another.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

11. According to Jean Piaget's stages of cognitive development, the preoperational stage is logical rather than intuitive.

Answer: False

Bloom's Taxonomy: Knowledge

Feedback: Page: 41. According to Jean Piaget's stages of cognitive development, the preoperational stage is intuitive rather than logical. The preoperational stage is the second Piagetian stage.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

12. According to Lev Vygotsky, cognitive development occurs without social interaction.

Answer: False

Bloom's Taxonomy: Knowledge

Feedback: Page: 53. According to Lev Vygotsky, children construct knowledge through social interaction. He also lays a strong emphasis on sociocultural context for cognitive development.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

13. The main implication of Lev Vygotsky's theory for teaching is that students need many opportunities to learn with the teacher and more-skilled peers.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page: 56. The main implication of Lev Vygotsky's theory for teaching is that students need many opportunities to learn with the teacher and more-skilled peers. Some critics point out that Vygotsky was not specific enough about age-related changes in his theory.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

14. Piaget believed that children who engage in "private speech" are more socially competent than children who do not.

Answer: False

Bloom's Taxonomy: Knowledge

Feedback: Page: 52. This was Vygotsky's view. Piaget believed that self-talk is egocentric and reflects immaturity.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

15. Vygotsky believed that private speech represents an early transition in becoming more socially communicative.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page: 52. According to Vygotsky, private speech, or self-talk, is one way for young children to learn social communication skills.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

16. Piaget believed that children construct knowledge by transforming, organizing, and reorganizing previous knowledge.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page: 53. For Piaget, children construct knowledge by transforming, organizing, and reorganizing previous knowledge.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

17. According to both Piaget and Vygotsky, teachers should play the role of facilitator rather than director.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page: 56. Both researchers viewed the teacher as a facilitator or a guide.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

18. According to Piaget, language plays a major role in influencing a child's cognitive development.

Answer: False

Bloom's Taxonomy: Knowledge

Feedback: Page: 56. According to Piaget, language plays a minor role in influencing a child's cognitive development.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

19. Children benefit when their parents and teachers actively engage them in conversation, ask questions, and emphasize interactive rather than directive language.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page: 59. Language development is not simply a matter of being rewarded for saying things correctly and imitating a speaker. Children benefit when their parents and teachers actively engage them in conversation, ask them questions, and emphasize interactive rather than directive language.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

20. Semantics refers to the meaning of words and sentences.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page: 59. Semantics refers to the meaning of words and sentences.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

21. The word "walking" consists of two morphemes.

Answer: True

Bloom's Taxonomy: Knowledge

Feedback: Page: 58. The word "walking" consists of two morphemes, *walk* + *ing*.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

Multiple-Choice Questions

22. During the period of development known as "early childhood," a child typically does which of the following?
- a. Masters the fundamental skills of writing
 - b. Contemplates career choices
 - c. Pursues independence and seeks identity
 - d. Learns to identify the letters of the alphabet

Answer: d

Bloom's Taxonomy: Knowledge

Feedback: Page: 30. During early childhood, children develop school readiness skills such as following instructions and identifying letters. First grade typically marks the end of early childhood.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

23. During middle and late childhood, a child typically:
- a. interacts more with the wider social world beyond his or her family.
 - b. explores different career paths he or she wants to follow.
 - c. seeks his or her own identity.
 - d. develops abstract and idealistic thoughts.

Answer: a

Bloom's Taxonomy: Knowledge

Feedback: Page: 31. During middle and late childhood, a child typically interacts more with the wider social world beyond his or her family. Children master the fundamental skills of reading, writing, and math; achievement becomes a more central theme; and self-control increases.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

24. When children intensely pursue independence, seek their own identity, and experience rapid physical changes, they are most likely in the _____ stage of their development.
- a. early adulthood
 - b. middle childhood
 - c. adolescence
 - d. childhood

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 31. When children intensely pursue independence, seek their own identity, and experience rapid physical changes, they are most likely in the adolescence stage of their development. Adolescence starts with rapid physical changes, including height and weight gains and development of sexual functions.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

25. An individual's thoughts become more abstract, logical, and idealistic during which of the following periods of development?
- a. Infancy
 - b. Early childhood
 - c. Middle and late childhood

d. Adolescence

Answer: d

Bloom's Taxonomy: Knowledge

Feedback: Page: 31. Adolescence is the period during which children become more independent; seek an identity; and think in more abstract, logical, and idealistic terms.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

26. If a child is entering preschool, he or she is in which of the following periods of development?

- a. Infancy
- b. Early childhood
- c. Middle and late childhood
- d. Adolescence

Answer: b

Bloom's Taxonomy: Knowledge

Feedback: Page: 30. During early childhood, children develop school readiness skills such as following instructions and identifying letters.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

27. If a child is in his or her elementary school years, he or she is most likely in the _____ period of development.

- a. infancy
- b. early childhood
- c. middle and late childhood
- d. adolescence

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 30. If a child is in elementary school, he or she is most likely in the middle and late childhood period of development. In this period, children interact more with the wider social world beyond their family.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

28. In the 21st century, the transitional period that occurs from approximately 18 to 25 years of age is referred to as _____.

- a. emerging adulthood
- b. adolescence
- c. middle age
- d. early elderhood

Answer: a

Bloom's Taxonomy: Knowledge

Feedback: Page: 31. In the 21st century, the transitional period that occurs from approximately 18 to 25 years of age is referred to as emerging adulthood. Experimentation and exploration characterize the emerging adult.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

29. Which of the following is an example of a socioemotional process that might be studied by an educational psychologist?

- a. The development of children's brains

- b. The changes in children's motor skills
- c. The changes in children's ability to solve math problems
- d. The influence of parental nurturing on children's tendency to be aggressive

Answer: d

Bloom's Taxonomy: Knowledge

Feedback: Page: 30. Socioemotional processes involve changes in a child's relationships with other people, changes in emotion, and changes in personality. Parents' nurturance toward their child, a boy's aggressive attack on a peer, a girl's development of assertiveness, and an adolescent's feelings of joy after getting good grades all reflect socioemotional processes in development.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

30. Which of the following is an example of a cognitive process that might be studied by an educational psychologist?
- a. The development of children's brains
 - b. The changes in children's motor skills
 - c. The changes in children's ability to solve math problems
 - d. The influence of parental nurturing on children's tendency to be aggressive

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 30. Cognitive processes involve changes in children's thinking, intelligence, and language.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

31. Which of the following is an example of a biological process that might be studied by an educational psychologist?
- a. The development of children's brains
 - b. The changes in children's motor skills
 - c. The changes in children's ability to solve math problems
 - d. The influence of parental nurturing on children's tendency to be aggressive

Answer: a

Bloom's Taxonomy: Knowledge

Feedback: Page: 30. Biological processes involve changes in a child's body and the development of the brain; genetic inheritance plays a major role.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

32. Which of the following is an example of splintered development?
- a. John has excellent math skills, but Chen has excellent reading skills.
 - b. Gloria has average verbal, reading, and writing skills.
 - c. Travis has excellent math skills but behaves in socially inappropriate ways.
 - d. Half of Mrs. Wu's class performs at grade level in math, but the other half performs below grade level.

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 34. Splintered development refers to the circumstances in which development is uneven across domains. One student may have excellent math skills but poor writing skills.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

33. Phil is extremely dependent on his mother. His language, his ability to think symbolically, his sensorimotor coordination, and his social learning are not complete. Which of the following periods of development is Phil in?
- a. Infancy
 - b. Early childhood
 - c. Middle and late childhood
 - d. Adolescence

Answer: a

Bloom's Taxonomy: Application

Feedback: Page: 30. Phil is most likely in his infancy. Infancy is the time in a baby's life in which language development, symbolic thought, sensorimotor coordination, and social learning are just beginning.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

34. Eight-year-old Paula learns how to react to criticism and appreciation. Her parents teach her how to respond positively to negative criticism from friends and peers and how to build a strong personality. The behavioral changes that Paula experiences by learning from her parents most likely represent:
- a. cognitive processes.
 - b. socioemotional processes.
 - c. biological processes.
 - d. physiological processes.

Answer: b

Bloom's Taxonomy: Application

Feedback: Page: 30. The behavioral changes that Paula experiences most likely represent socioemotional processes. Socioemotional processes involve changes in children's relationships with other people, changes in emotion, and changes in personality.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

35. Moesha is learning how to follow instructions and how to recognize the letters in her name. Which of the following periods of development is Moesha in?
- a. Infancy
 - b. Early childhood
 - c. Middle and late childhood
 - d. Adolescence

Answer: b

Bloom's Taxonomy: Application

Feedback: Page: 30. Moesha is in her early childhood. During early childhood, children develop school readiness skills such as following instructions and identifying letters.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

36. The most extensive increase in myelination takes place during ____.
- a. infancy
 - b. elderhood
 - c. old age
 - d. adolescence

Answer: d

Bloom's Taxonomy: Knowledge

Feedback: Page: 36. The most extensive increase in myelination, which occurs in the brain's frontal lobes where reasoning and thinking occur, takes place during adolescence. Myelination is the process of encasing many cells in the brain with a myelin sheath.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

37. Myelination in the areas of the brain that are important in focusing attention is not complete in an individual until about ____.
- a. 2 years of age
 - b. 3 years of age
 - c. 10 years of age
 - d. 25 years of age

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 36. Myelination in brain areas important in focusing attention is not complete until about 10 years of age. The implications for teaching are that children will have difficulty focusing their attention and maintaining it for very long in early childhood, but their attention will improve as they move through the elementary school years.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

38. Tiny gaps between neurons where connections between neurons are made are called:
- a. density.
 - b. myelination.
 - c. synapses.
 - d. lateralization.

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 36. Synapses are the tiny gaps between neurons where connections between neurons are made.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

39. Which of the following statements is true about the prefrontal cortex?
- a. It develops quickly and matures by early childhood.
 - b. It is the region of the brain with the lowest level of myelination in adolescence.
 - c. It is responsible for processing emotions.
 - d. It is the region where higher-level thinking and self-regulation take place.

Answer: d

Bloom's Taxonomy: Comprehension

Feedback: Page: 36. The prefrontal cortex is the region where higher-level thinking and self-regulation take place. Growth in the prefrontal cortex continues through adolescence.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

40. Identify an accurate statement about brain development.
- a. The corpus callosum, where fibers connect the brain's left and right hemispheres, thickens in adolescence.
 - b. Myelination in brain areas important in focusing attention is complete when a child is 5 years of age.
 - c. Total brain volume stabilizes by the end of infancy in most children.

d. The prefrontal cortex completely develops in early adolescence.

Answer: a

Bloom's Taxonomy: Knowledge

Feedback: Page: 37. The corpus callosum, where fibers connect the brain's left and right hemispheres, thickens in adolescence, and this improves adolescents' ability to process information. The limbic system, which is the seat of emotions and where rewards are experienced, matures much earlier than the prefrontal cortex and is almost completely developed in early adolescence.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

41. Janice is 14 years old. She is able to understand complex math and science equations. Mark, a social psychologist, tells his colleague James that Janice is most likely in the formal operational stage of cognitive development. James disagrees with Mark because he believes that Janice hardly shows adolescent egocentrism. Which of the following strengthens Mark's claim?
- a. Janice is a permanent participant in debates and discussions in her school.
 - b. Janice has become an extrovert over the last few years.
 - c. Janice thinks logically and devises plans to solve problems.
 - d. Janice can speak three different languages.

Answer: c

Bloom's Taxonomy: Application

Feedback: Pages: 45–46. Mark's claim is strengthened by the fact that Janice thinks logically and devises plans to solve problems. The formal operational stage, which emerges at about 11 to 15 years of age, is Piaget's fourth and final cognitive stage. At this stage, individuals move beyond reasoning only about concrete experiences and think in more abstract, idealistic, and logical ways. At this stage, people devise plans to solve problems and systematically test solutions.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

42. According to Piaget, _____ occurs when children incorporate new information into their existing schemas.
- a. displacement
 - b. assimilation
 - c. accommodation
 - d. equilibration

Answer: b

Bloom's Taxonomy: Knowledge

Feedback: Page: 40. Assimilation occurs when children incorporate new information into their existing schemas.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

43. According to Piaget, _____ occurs when children adjust their schemas to fit new information and experiences.
- a. equilibration
 - b. assimilation
 - c. accommodation
 - d. displacement

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 40. Accommodation occurs when children adjust their schemas to fit new information and experiences.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

44. Piaget's concept of grouping isolated behaviors into a higher order, more efficiently functioning cognitive system is called:
- a. assimilation.
 - b. equilibration.
 - c. organization.
 - d. accommodation.

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 40. Organization is Piaget's concept of grouping isolated behaviors into a higher order, more effortlessly functioning cognitive system.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

45. According to Piaget, a concept or structure that exists in a person's mind to arrange and interpret information is called:
- a. assimilation.
 - b. equilibration.
 - c. a schema.
 - d. accommodation.

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 40. A schema is a concept or framework that exists in a person's mind to organize and interpret information.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

46. Piaget's interest in schemas focused on how children do which of the following?
- a. Learn to solve math problems
 - b. Resolve conflicts with others
 - c. Make sense of their experiences
 - d. Think logically and abstractly

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 40. A schema is a concept or framework that exists in a person's mind to organize and interpret knowledge.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

47. According to Vygotsky, _____ means changing the level of support.
- a. assimilation
 - b. equilibration
 - c. scheming
 - d. scaffolding

Answer: d

Bloom's Taxonomy: Knowledge

Feedback: Page: 51. Scaffolding means changing the level of support. Over the course of a session, a teacher adjusts the amount of guidance, decreasing the guidance as a student learns.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

48. The sensorimotor stage, as described by Piaget, includes individuals in which of the following age groups?
- a. Birth to 2 years old
 - b. 2 to 7 years old
 - c. 7 to 11 years old
 - d. 11 years old through adulthood

Answer: a

Bloom's Taxonomy: Knowledge

Feedback: Page: 41. The sensorimotor stage includes children from birth to 2 years of age.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

49. The concrete operational stage, as described by Piaget, includes individuals in which of the following age groups?
- a. Birth to 2 years old
 - b. 2 to 7 years old
 - c. 7 to 11 years old
 - d. 11 years old through adulthood

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 44. The concrete operational stage lasts from 7 to 11 years of age.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

50. A child who can only perceive other people's perspectives as though they were from his or her own point of view is said to display which of the following?
- a. Object permanence
 - b. Symbolic function
 - c. Logical reasoning
 - d. Egocentrism

Answer: d

Bloom's Taxonomy: Knowledge

Feedback: Page: 42. Egocentrism is the inability to distinguish between one's own perspective and that of someone else.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

51. During the symbolic function substage, a child gains the ability to do which of the following?
- a. Represent mentally an object that is absent
 - b. Distinguish between oneself and the environment
 - c. Classify items based on two or more properties at the same time
 - d. Understand that inanimate objects are not alive

Answer: a

Bloom's Taxonomy: Knowledge

Feedback: Page: 41. During the symbolic function substage, a child gains the ability to represent mentally an object that is not present. The symbolic function substage occurs roughly between 2 and 4 years of age.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

52. Which of the following statements is true about the intuitive thought substage?
- a. It is the substage where children begin to use primitive reasoning.
 - b. It involves children thinking in abstract, idealistic, and logical ways.
 - c. It starts about when children are 12 years of age.
 - d. It is the third substage of concrete operational thought.

Answer: a

Bloom's Taxonomy: Knowledge

Feedback: Page: 42. The intuitive thought substage is the second substage of preoperational thought, starting at about 4 years of age and lasting until about 7 years of age. At this substage, children begin to use primitive reasoning and want to know the answers to all sorts of questions.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

53. According to Piaget, a child is first able to sort objects into groups based on two or more characteristics when that child reaches which of the following stages?
- a. Sensorimotor stage
 - b. Preoperational stage
 - c. Concrete operational stage
 - d. Formal operational stage

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 45. An important concrete operation is classifying or dividing things into different sets or subsets and considering their interrelationships.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

54. According to Piaget, a child first understands the idea of "conservation of volume" when that child reaches which of the following stages?
- a. Sensorimotor stage
 - b. Preoperational stage
 - c. Concrete operational stage
 - d. Formal operational stage

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 43. A concrete operation is a reversible mental action on real, concrete objects. A child can imagine pouring water from one container to the next without changing the volume of the water.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

55. According to Vygotsky, what is the zone of proximal development?
- a. The range of tasks that are too difficult for children to master either alone or with assistance
 - b. The range of tasks that are too difficult for children to master alone but can be learned with assistance
 - c. The range of tasks that children have mastered but cannot teach others
 - d. The range of tasks that children have mastered and can teach others

Answer: b

Bloom's Taxonomy: Knowledge

Feedback: Page: 50. The zone of proximal development (ZPD) refers to the range of tasks that are too difficult for children to master alone but can be learned with assistance.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

56. Vygotsky's zone of proximal development (ZPD) has a lower limit and an upper limit. Which of the following best describes these limits?
- The lower limit is the level of skill reached by a child working independently and the upper limit is the level of responsibility the child can accept with assistance.
 - The lower level is the level of skill reached by a majority of students in a class and the upper limit is the level of skill reached by the top five percent of students in the class.
 - A student's ZPD limits and "readiness to learn" are determined by the results of standardized testing.
 - Teaching should begin at the lower limit of the ZPD and gradually progress toward the upper limit so that a student experiences success.

Answer: a

Bloom's Taxonomy: Comprehension

Feedback: Page: 50. The lower limit of the ZPD is the level of skill reached by a child working independently. The upper limit is the level of additional responsibility the child can accept with the assistance of an able instructor, such as a teacher or a peer. Teaching should begin toward the zone's upper limit, so that the child can reach his or her goal with help and move to a higher level of skill and knowledge.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

57. Which of the following best describes an example of scaffolding as used by a teacher when assisting a student?
- The teacher begins with direct instruction but gradually reduces the amount of guidance given.
 - The teacher observes the student without assisting until the student asks for assistance.
 - The teacher asks the student to teach other students as a method of helping the student learn.
 - The teacher divides students into groups of similar abilities so the students can compete fairly.

Answer: a

Bloom's Taxonomy: Comprehension

Feedback: Page: 52. Scaffolding means changing the level of support. Over the course of a session, a teacher adjusts the amount of guidance, decreasing the guidance as a student learns.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

58. Bruce is having trouble with division problems; he can't finish them correctly on his own. However, he can complete them if his teacher gives him some hints. According to Vygotsky, why can't Bruce complete his division problems on his own?
- Because he cannot assimilate
 - Because he cannot accommodate
 - Because he cannot scaffold
 - Because division is in his zone of proximal development

Answer: d

Bloom's Taxonomy: Application

Feedback: Page: 51. The zone of proximal development refers to the range of tasks too difficult for children to master alone but that can be learned with assistance.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

59. Kiley is having trouble learning the steps involved in using a microscope correctly. If we consider Vygotsky's description of how children help themselves through difficult tasks, we should suggest that Kiley:
- practice each step separately many times over.
 - go through the procedure in slow motion a few times.
 - talk herself through the steps.
 - learn the reasons why each step is important.

Answer: c

Bloom's Taxonomy: Application

Feedback: Page: 52. Vygotsky believed that children who use private speech are able to guide themselves and talk themselves through difficult tasks.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

60. Brianna is completing a few reading comprehension questions. Her teacher keeps interrupting her work to check it. However, Brianna performs well on reading comprehension and can do this task without the help of her teacher. According to Vygotsky, is reading comprehension in Brianna's zone of proximal development?
- Yes, because she can complete it on her own.
 - No, because she can complete it on her own.
 - Yes, because she needs scaffolding in reading comprehension.
 - No, because she cannot complete it on her own.

Answer: b

Bloom's Taxonomy: Application

Feedback: Page: 51. The zone of proximal development refers to the range of tasks too difficult for children to master alone but that can be learned with assistance. Brianna does not need assistance with reading comprehension; she can perform this task alone.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

61. Three of the following teachers are using "scaffolding" to help their students learn. Which one is *not* providing scaffolding?
- Ms. Applegate gives her students the structure she'd like them to follow when they write their first essay.
 - Mr. Bernardo teaches the backhand tennis swing by gently guiding each student through the correct movement a few times.
 - Ms. Chen gives her class some hints about how to solve an especially difficult word problem.
 - Mr. Donaldson takes his students on a field trip to the art museum so they can learn more about the different types of art.

Answer: c

Bloom's Taxonomy: Analysis

Feedback: Page: 51. Scaffolding means changing the level of support. Over the course of a session, a teacher adjusts the amount of guidance, decreasing the guidance as a student learns.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

62. Which one of the following best illustrates Piaget's concept of accommodation?
- Anne is given 10 more addition problems when she does the first 10 carelessly.
 - Betsy writes down the definition of a mollusk, something she learned word for word from her textbook.
 - Carol copies down what her teacher writes on the blackboard; later she will memorize it.

d. Donna revises her understanding of what clouds are like when she studies them in science class.

Answer: d

Bloom's Taxonomy: Application

Feedback: Page: 40. When Donna revises her understanding of what clouds are like when she studies them in science class, it illustrates Piaget's concept of accommodation. Accommodation occurs when a child adjusts to new information.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

63. Mr. Carbona is trying to teach his kindergarten students about different animals. Henry, one of his students, explains to Mr. Carbona that he does not need to learn about lions because he has one at home. When Mr. Carbona explains to him that he must have a cat at home. Henry insists that it is a lion because it looks just like the one in the picture. According to Piaget, Henry is:
- a. accommodating.
 - b. assimilating.
 - c. using multiple classification.
 - d. practicing animism.

Answer: b

Bloom's Taxonomy: Application

Feedback: Page: 40. According to Piaget, Henry is assimilating. Assimilation occurs when a child incorporates new knowledge into existing knowledge; thus, children assimilate their environment into their schemas.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

64. Ann Marie ran into her teacher and his wife at the park. She was very surprised that he was a husband and a father. According to Piaget's theory of cognitive development, which concept is Ann Marie having trouble with?
- a. Centering
 - b. Conservation
 - c. Abstract thinking
 - d. Classification

Answer: d

Bloom's Taxonomy: Knowledge

Feedback: Pages: 44–45. Ann Marie is having trouble with the concept of classification. Classification is dividing things into different sets and subsets depending on their interrelationships.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

65. George thinks his teacher is joking when she tells him that she has a son who is his age. According to Piaget's theory of cognitive development, which concept is George having trouble with?
- a. Centering
 - b. Conservation
 - c. Abstract thinking
 - d. Classification

Answer: d

Bloom's Taxonomy: Knowledge

Feedback: Pages: 44–45. George is having trouble with the concept of classification. Classification is dividing things into different sets and subsets depending on their interrelationships.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

66. Louis receives a new soccer ball for his birthday. His parents notice that Louis does not try to kick the ball but instead dribbles it in the same way he dribbles his basketball. Louis's dribbling of the new ball reflects Piaget's concept of:
- a. conservation.
 - b. accommodation.
 - c. multiple classification.
 - d. assimilation.

Answer: d

Bloom's Taxonomy: Knowledge

Feedback: Page: 40. Louis's dribbling of the new ball reflects Piaget's concept of assimilation.

Assimilation occurs when a child incorporates new knowledge into existing knowledge; thus, children assimilate their environment into their schemas.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

67. Marcy is given a choice between two Hershey's bars, one of which has been broken into four pieces and the other is intact. Marcy chooses the broken candy bar, believing that it has more candy. According to Piaget, Marcy is having trouble with which concept?
- a. Transductive reasoning
 - b. Multiple classification
 - c. Egocentrism
 - d. Conservation

Answer: d

Bloom's Taxonomy:

Feedback: Page: 43. Marcy is having trouble with the concept of conservation. Conservation is the idea that some characteristic of an object stays the same even though the object might change in appearance.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

68. Ms. Garcia has just asked her students to organize the sheets of paper on their desks by size. According to Piaget, what type of task is Ms. Garcia asking her students to complete?
- a. A seriation task
 - b. An assimilation task
 - c. An equilibration task
 - d. A task involving animism

Answer: a

Bloom's Taxonomy: Knowledge

Feedback: Page: 45. Ms. Garcia is asking her students to complete a seriation task. Seriation involves ordering stimuli along some quantitative dimension.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

69. Sixteen-year-old Eric thinks that most students in his school are interested to know about his social life and his daily routine. He thinks he is very unique, and he wants to be desired by his peers and friends. He always wants to be the center of attention too. According to Piaget, what is Eric experiencing?
- a. Classification
 - b. Identity diffusion
 - c. Transitivity
 - d. Adolescent egocentrism

Answer: d

Bloom's Taxonomy: Comprehension

Feedback: Page: 47. According to Piaget, Eric is experiencing adolescent egocentrism. Adolescent egocentrism is normal, and it is characterized by a heightened awareness of the self.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

70. In adolescents, the developmental disjunction between strong emotions and the _____ may account for their increased risk taking.
- a. prefrontal cortex
 - b. thyroid gland
 - c. cerebrum
 - d. cerebellum

Answer: a

Bloom's Taxonomy: Knowledge

Feedback: Page: 37. Although adolescents are capable of very strong emotions, their prefrontal cortex isn't adequately developed to the point at which they can control these passions.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

71. Total brain volume stabilizes by:
- a. early adolescence.
 - b. end of early childhood.
 - c. late adulthood.
 - d. the end of middle and late childhood.

Answer: d

Bloom's Taxonomy: Knowledge

Feedback: Page: 36. Total brain volume stabilizes by the end of middle and late childhood.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

72. Ms. Lewis gets frustrated with her first graders' performance on some tasks because they are constantly focusing their attention on one characteristic and leaving out all others. According to Piaget's theory, what are Ms. Lewis's students experiencing?
- a. Classification
 - b. Seriation
 - c. Centration
 - d. Assimilation

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 43. Ms. Lewis's students are experiencing centration. Centration is when children focus on one characteristic to the exclusion of all others.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

73. Mr. Castillo gives an assignment to his third-grade class. The assignment is a list of case studies dealing with hypothetical situations. Most of the class does not do well on this assignment. When Mr. Castillo asks them what happened, most of them reply, "I did not understand it." Mr. Castillo is frustrated because he thinks these children are lazy and unmotivated. According to Piaget's theory, what is happening?
- a. These children are probably underachievers and lazy.
 - b. The teacher is expecting concrete operational thinking from preoperational kids.
 - c. The teacher is expecting formal operational thinking from formal operational kids.
 - d. The teacher is expecting formal operational thinking from concrete operational kids.

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Answer: d

Bloom's Taxonomy: Analysis

Feedback: Page: 45. According to Piaget's theory, the students are concrete thinkers and therefore cannot reason hypothetically or abstractly. The teacher is expecting formal operational thinking from concrete operational kids.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

74. Veronica is having trouble with the concept of conservation. Which of the following questions would Veronica most likely have trouble answering correctly?
- a. A small box contains only 16 chocolates. If all chocolates from this small box are transferred into a big food bowl, then will the food bowl now have more chocolates than were in the box?
 - b. If cats are different from lions, then are dogs different from foxes?
 - c. Which is bigger: 7 multiplied by 4 or 6 multiplied by 5?
 - d. A fruit basket has 10 apples. If there are 8 red apples and 2 green apples, then are there more red apples or more green apples?

Answer: a

Bloom's Taxonomy: Application

Feedback: Page: 43. Veronica will most likely have trouble answering correctly whether the food bowl has more chocolates than were in the small box. Conservation is the idea that some characteristic of an object stays the same even though the object might change in appearance.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

75. Mr. Epstein is showing the class a picture of a tiger. Ally, one of his students, tells him that she has one of these animals at home. He tries to explain to her that she must have a cat, not a tiger. She insists that it is a tiger and that she got him at the pet store last month. According to Piaget, the teacher is trying to throw Ally into a state of:
- a. disequilibrium.
 - b. accommodation.
 - c. equilibration.
 - d. equilibrium.

Answer: a

Bloom's Taxonomy: Application

Feedback: Page: 41. The teacher wants Ally to experience cognitive conflict or disequilibrium in trying to understand the world. Equilibration is a mechanism that Piaget proposed to explain how children shift from one stage of thought to the next. The shift occurs as children experience cognitive conflict, or disequilibrium, in trying to understand the world. Eventually, they resolve the conflict and reach a balance, or equilibrium, of thought. Piaget pointed out that there is considerable movement between states of cognitive equilibrium and disequilibrium as assimilation and accommodation work in concert to produce cognitive change.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

76. Karen is participating in a brainstorming session. She does not interrupt other participants when they speak, and she patiently waits for her turn to speak. She also politely makes her points during the session. In the context of the language rules that govern communication, Karen is demonstrating the knowledge of ____.
- a. pragmatics
 - b. semantics
 - c. phonology
 - d. morphology

Answer: a

Bloom's Taxonomy: Application

Feedback: Page: 59. In the context of the language rules that govern communication, Karen is demonstrating the knowledge of pragmatics. Pragmatics is the appropriate use of language in different contexts. Pragmatic rules can be complex, and they differ from one culture to another.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

77. Which of the following is the smallest unit of meaning in a language?

- a. Phoneme
- b. Morpheme
- c. Semantics
- d. Pragmatics

Answer: b

Bloom's Taxonomy: Knowledge

Feedback: Page: 58. Morphemes are minimal units of meaning.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

78. Vincent says that the word "talking" can be split into two meaningful units "talk" and "ing." In this case, Vincent is most likely discussing the _____ of the word.

- a. phonology
- b. morphology
- c. semantics
- d. pragmatics

Answer: b

Bloom's Taxonomy: Application

Feedback: Page: 58. In this case, Vincent is discussing the morphology of the word "talking."

Morphology refers to the units of meaning involved in word formation. A morpheme is a minimal unit of meaning; it is a word or a part of a word that cannot be broken into smaller meaningful parts.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

79. The smallest unit of sound in a language is which of the following?

- a. Phonemes
- b. Morphemes
- c. Semantics
- d. Pragmatics

Answer: a

Bloom's Taxonomy: Knowledge

Feedback: Page: 58. The basic unit of sound in a language is a phoneme; it is the smallest unit of sound that affects meaning.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

80. Language is highly ordered and organized according to which systems of rules?

- a. Phonology, morphology, syntax, conservation, and centration
- b. Phonology, seriation, syntax, semantics, and pragmatics
- c. Phonology, morphology, syntax, assimilation, and accommodation
- d. Phonology, morphology, syntax, semantics, and pragmatics

Answer: d

Bloom's Taxonomy: Knowledge

Feedback: Page: 58. Language organization involves five systems of rules: phonology, morphology, syntax, semantics, and pragmatics.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

81. In English, the adjective usually precedes the noun, whereas in Spanish the adjective usually follows the noun. This is an example of the _____ of a language.
- a. phonology
 - b. morphology
 - c. syntax
 - d. semantics

Answer: c

Bloom's Taxonomy: Knowledge

Feedback: Page: 58. Syntax involves the way words are combined to form acceptable phrases and sentences.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

82. Many children's television shows and movies show animals and objects that can talk. In most cases, these shows are _____ correct, but _____ incorrect.
- a. syntactically; semantically
 - b. semantically; syntactically
 - c. syntactically; linguistically
 - d. semantically; pragmatically

Answer: a

Bloom's Taxonomy: Application

Feedback: Pages: 58–59. The animals and objects in such movies typically speak in sentences that are syntactically correct, but they violate our semantic knowledge that animals and objects don't talk.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

83. At which of the following ages is a typical child most likely to speak his or her first word?
- a. 6 to 8 months of age
 - b. 10 to 13 months of age
 - c. 24 to 28 months of age
 - d. 30 to 36 months of age

Answer: b

Bloom's Taxonomy: Knowledge

Feedback: Pages: 59–60. Babbling occurs in the middle of the first year, and infants usually utter their first word at about 10 to 13 months of age.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

84. At which of the following ages does the typical child begin to use plurals and past tense correctly?
- a. 1 year of age
 - b. 2 years of age
 - c. 4 years of age
 - d. 6 years of age

Answer: b

Bloom's Taxonomy: KnowledgeFeedback: Pages: 61–62. At the age of 2 years, a child correctly begins to use plurals and past tense.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

85. Which of the following observations would provide the strongest support to the statement that the process of language is biologically based?
- a. Children from all over the world acquire language milestones at about the same age despite their vast differences in their environmental experiences.
 - b. Children benefit when their parents and teachers actively engage them in conversation and ask many questions.
 - c. Children can be trained to speak words even before they are able to understand the meaning of those words.
 - d. Children tend to understand nouns and verbs before they are able to understand adjectives and adverbs.

Answer: a

Bloom's Taxonomy: Application

Feedback: Page: 69. Children from all over the world acquire language milestones at about the same age and in the same approximate order.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

86. Tyler does not understand why his father can say, "The car flew down the street." After all, cars, he has been taught, do not fly. Planes and birds fly. According to Tyler, the problem lies with the _____ of the sentence.
- a. pragmatics
 - b. semantics
 - c. morphology
 - d. phonemes

Answer: b

Bloom's Taxonomy: Application

Feedback: Page: 59. According to Tyler, the problem lies with the semantics of the sentence.

Semantics refers to the meaning of words and sentences.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

87. Lori, a 5-year-old in Mrs. Clark's class, doesn't understand how a person can feel "blue" and the sky can be the color "blue." Lori is encountering this problem because she does not yet have a clear grasp of the _____ of the language.
- a. semantics
 - b. syntax
 - c. pragmatics
 - d. phonemes

Answer: a

Bloom's Taxonomy: Application

Feedback: Page: 59. Lori is encountering the problem because she does not yet have a clear grasp of the semantics of the language. Semantics refers to the meaning of words and sentences.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

88. Sarah says to her teacher, "Mrs. White, today recess to go want don't I!" Mrs. White smiles and says, "It's okay if you don't want to go to recess today." According to language development, Sarah is having a problem with:
- a. semantics.
 - b. syntax.
 - c. pragmatics.

d. phonemes.

Answer: b

Bloom's Taxonomy: Application

Feedback: Page: 58. Sarah is having a problem with the syntax of the sentence. Syntax involves the way words are combined to form acceptable phrases and sentences.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

Essay Questions

89. Identify the three processes of child development.

Answer: Biological processes involve changes in a child's body and the development of the brain; genetic inheritance plays a major role. Cognitive processes involve changes in children's thinking, intelligence, and language. Socioemotional processes involve changes in children's relationships with other people, changes in emotion, and changes in personality.

Bloom's Taxonomy: Knowledge

Feedback: Page: 30.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

90. Identify the different periods of development.

Answer: (1) Infancy, (2) early childhood, (3) middle and late childhood, (4) adolescence, (5) early adulthood, (6) middle adulthood, and (7) late adulthood

Bloom's Taxonomy: Knowledge

Feedback: Pages: 30–31.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

91. Distinguish between the different features of each of the different periods of development.

Answer: (1) Infancy is the time in a baby's life in which language development, symbolic thought, sensorimotor coordination, and social learning are just beginning. (2) Early childhood is a time when children develop school readiness skills such as following instructions and identifying letters. (3) During middle and late childhood, a child masters the fundamental skills of reading, writing, and mathematics. (4) Adolescence is the period during which children become more independent; seek their own identity; and think in more abstract, logical, and idealistic terms. (5) Early adulthood is the time in which love and work become the main themes in a person's life. (6) In the 21st century, a transitional period—emerging adulthood, which occurs from approximately 18 to 25 years of age—has been described. Experimentation and exploration characterize the emerging adult. At this point in their development, many individuals are still exploring which career path they want to follow, what they want their identity to be, and which lifestyle they want to adopt (for example, being single, cohabiting, or getting married).

Bloom's Taxonomy: Analysis

Feedback: Pages: 30–31.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

92. Compare and contrast biological, cognitive, and socioemotional processes.

Answer: Biological processes involve changes in a child's body and the development of the brain; genetic inheritance plays a major role. Cognitive processes involve changes in children's thinking,

intelligence, and language. Socioemotional processes involve changes in children's relationships with other people, changes in emotion, and changes in personality.

Bloom's Taxonomy: Analysis

Feedback: Page: 30.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

93. Discuss the epigenetic view on development.

Answer: The epigenetic view on development states that development is the result of an ongoing, bidirectional interchange between heredity and the environment. Let's look at an example that reflects the epigenetic view. A baby inherits genes from both parents at conception. During childhood, environmental experiences such as nutrition, stress, learning, child care, and encouragement can modify genetic activity and the activity of the nervous system that directly underlies behavior. Heredity and environment thus operate together—or collaborate—to produce a child's intelligence, temperament, health, ability to read, and so on.

Bloom's Taxonomy: Comprehension

Feedback: Page: 32.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

94. Compare and contrast the continuity-discontinuity issue.

Answer: The continuity-discontinuity issue focuses on the extent to which development involves gradual, cumulative change (continuity), or distinct stages (discontinuity). In general, developmentalists who emphasize nurture usually describe development as a gradual, continuous process, like the seedling's growth into an oak. Those who emphasize nature often describe development as a series of distinct changes, like the change from caterpillar to butterfly.

Bloom's Taxonomy: Analysis

Feedback: Page: 33.

Learning Goal I: Define development and explain the main processes, periods, and issues in development as well as links between development and education.

95. Identify the four stages of cognitive development as proposed by Piaget.

Answer: The four stages of cognitive development are as follows: sensorimotor; preoperational; concrete operational; and formal operational.

Feedback: Pages 41–47.

Bloom's Taxonomy: Knowledge

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

96. Discuss Vygotsky's zone of proximal development.

Answer: Zone of proximal development (ZPD) is Vygotsky's term for the range of tasks that are too difficult for a child to master alone but that can be learned with guidance and assistance from adults or more-skilled children. Thus, the lower limit of the ZPD is the level of skill reached by the child working independently. The upper limit is the level of additional responsibility the child can accept with the assistance of an able instructor. The ZPD captures the child's cognitive skills that are in the process of maturing and can be accomplished only with the assistance of a more-skilled person.

Bloom's Taxonomy: Comprehension

Feedback: Page: 50.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

97. Discuss Piaget's concept of accommodation.

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Answer: Accommodation occurs when a child adjusts to new information; thus, children adjust their schemas to their environment. Consider an 8-year-old girl who is given a hammer and nail to hang a picture on the wall. She has never used a hammer, but from observing others do this she realizes that a hammer is an object to be held, that it is swung by the handle to hit the nail, and that it usually is swung a number of times. Recognizing each of these things, she fits her behavior into this schema she already has (assimilation). But the hammer is heavy, so she holds it near the top. She swings too hard and the nail bends, so she adjusts the pressure of her strikes. These adjustments reflect her ability to slightly alter her conception of the world (accommodation). Just as both assimilation and accommodation are required in this example, so are they required in many of a child's thinking challenges.

Bloom's Taxonomy: Comprehension

Feedback: Page: 40.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

98. Explain what lateralization means with regard to brain functioning.

Answer: The cerebral cortex is divided into two halves, or hemispheres. Lateralization is the specialization of functions in each hemisphere of the brain. In individuals with an intact brain, there is a specialization of function in some areas.

Bloom's Taxonomy: Comprehension

Feedback: Page: 38.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

99. Explain Piaget's concept of conservation.

Answer: Conservation is the idea that some characteristics of an object stay the same even though the object might change in appearance. For example, to adults it is obvious that a certain amount of liquid stays the same regardless of a container's shape. But this is not obvious at all to young children. Rather, they are struck by the height of the liquid in the container. In this type of conservation task (Piaget's most famous), a child is presented with two identical beakers, each filled to the same level with liquid. The child is asked if the beakers have the same amount of liquid. The child usually says yes. Then the liquid from one beaker is poured into a third beaker, which is taller and thinner. The child now is asked if the amount of liquid in the tall, thin beaker is equal to the liquid that remains in the second original beaker. Children younger than 7 or 8 usually say no. They justify their answer by referring to the differing height or width of the beakers. Older children usually answer yes. They justify their answers appropriately: If you poured the liquid back, the amount would still be the same.

Bloom's Taxonomy: Comprehension

Feedback: Page: 43.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

100. Explicate Piaget's concept of equilibration.

Answer: It is what Piaget proposed to explain how children shift from one stage of thought to the next. The shift occurs as children experience cognitive conflict and must resolve the conflict in order to regain equilibrium.

Bloom's Taxonomy: Comprehension

Feedback: Page: 41.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

101. Describe the four stages of cognitive development as proposed by Piaget

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Answer: First stage: Sensorimotor (from birth to 2 years old): Characteristics include constructing an understanding of the world by coordinating sensory experiences with physical actions. Infants progress from exhibiting reflexive and instinctive actions to the beginning of symbolic thought. Second stage: Preoperational (from 2 to 7 years old): Characteristics include beginning to represent the world with words and images, which are indicative of symbolic thinking. Third stage: Concrete operational (from 7 to 11 years old): Characteristics include thinking logically about concrete events and being able to classify objects into different sets. Fourth stage: Formal operational (from 11 to 15 years of age): Characteristics include reasoning in abstract, idealistic, and logical ways.

Bloom's Taxonomy: Knowledge

Feedback: Pages 41–47.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

102. Discuss the limitations of preoperational thinkers, according to Piaget.

Answer: Piaget's preoperational stage in which children are not yet capable of operational thought is beset by several limitations. Preoperational thinkers lack conservation and classification and possess centration, egocentrism, and animism.

Bloom's Taxonomy: Comprehension

Feedback: Pages: 43–44.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

103. What are the criticisms of Jean Piaget's theory of cognitive development?

Answer: Questions have been raised about four aspects of Piaget's theory. First, some cognitive abilities are suspected to emerge earlier or later than depicted by Piaget. Second, emerging aspects of each stage may not appear in synchrony. Rather, a child may develop conservation long before he or she learns to cross-classify. Hence, some developmentalists argue that development is not as stage-like as suggested by Piaget. Third, it has been shown, contrary to Piaget's beliefs, that children can be trained to perform cognitive tasks that are beyond their current cognitive stages. Fourth, culture and education seem to exert stronger influences on children's development than Piaget believed.

Bloom's Taxonomy: Analysis

Feedback: Pages: 49–50.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

104. How does the significance of private speech differ for Jean Piaget and Lev Vygotsky?

Answer: In Lev Vygotsky's view, language plays an important role in a child's development. According to Vygotsky, children use speech not only for social communication, but also to help them solve tasks. Vygotsky further argued that young children use language to plan, guide, and monitor their behavior. This use of language for self-regulation is called private speech. For example, young children talk aloud to themselves about such things as their toys and the tasks they are trying to complete. Thus, when working on a puzzle, a child might say, "This piece doesn't fit; maybe I'll try that one." A few minutes later she utters, "This is hard." For Piaget, private speech is egocentric and immature, but for Vygotsky it is an important tool of thought during the early childhood years.

Bloom's Taxonomy: Comprehension

Feedback: Page: 52.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

105. Discuss the role of synaptic connections.

Answer: Synapses are tiny gaps between neurons where connections between neurons are made. The connections that are used become strengthened and the unused ones are replaced by other pathways or disappear.

Bloom's Taxonomy: Comprehension

Feedback: Page: 36.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

106. Describe how Vygotsky's zone of proximal development relates to teaching children in the classroom.

Answer: Answers should include the following ideas: (1) use a student's zone of proximal development (the range of tasks too difficult for children to master alone but that can be learned with the guidance and assistance of adults or more-skilled children) by teaching skills that are toward the zone's upper limit; (2) use scaffolding (changing levels of support) by offering just enough assistance so that a child succeeds at a task; (3) use more skilled peers as teachers; (4) monitor and encourage children's use of private speech (privately talking to one's self); and (5) assess a student's zone of proximal development rather than intelligence.

Bloom's Taxonomy: Comprehension

Feedback: Pages: 50–52.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

107. Discuss how Vygotsky's view of cognitive development differs from Piaget's.

Answer: Answers may include the following: (1) Vygotsky emphasizes the importance of inner speech, while Piaget views such speech as immature; (2) while Piaget's theory is constructivist (i.e., portrays learning through a child's active building of knowledge), Vygotsky's theory is social constructivist (i.e., emphasizes the social contexts of learning and that knowledge is mutually built and constructed); (3) Piaget emphasizes stages of development, while Vygotsky does not; and (4) Piaget's key processes are schema building through assimilation and accommodation, while Vygotsky's key processes are expanding the zone of proximal development through the language and tools of a culture.

Bloom's Taxonomy: Comprehension

Feedback: Pages: 53–57.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

108. Discuss the assertion that certain brain functions lie in the left brain instead of the right brain.

Answer: The cerebral cortex is divided into two halves, or hemispheres. Lateralization is the specialization of functions in one hemisphere of the brain or the other. The textbook points out that verbal processing, such as speech and grammar, takes place in the left hemisphere and that nonverbal processing, such as emotion, visual-spatial processing, and so on, takes place in the right hemisphere. However, we must be warned that using terms like left-brained or right-brained may not be accurately capturing the complexity of the brain.

Bloom's Taxonomy: Comprehension

Feedback: Page: 38.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

109. Evaluate the claim that children's education should be brain-based.

Answer: There is evidence to support the statement that the cerebral cortex is divided into two halves, or hemispheres. Lateralization is the specialization of functions in one hemisphere of the brain or the other. The textbook points out that verbal processing, such as speech and grammar, takes place in

the left hemisphere and that nonverbal processing, such as emotion, visual-spatial processing, and so on, takes place in the right hemisphere. However, some journalists have claimed that educators should turn to neuroscience to obtain answers to the question of how to teach children best. This statement seems to be too bold and based on speculation, not on what neuroscientists know about the brain. In fact, Sousa (1995) argues that connections between neuroscience and terms such as left-brained or right-brained are incorrectly made. Fischer and Immordino-Yang (2008) argue that most of what is called "brain-based education" today has no grounding at all in brain or cognitive science. However, important information is being derived from educational neuroscientific research, such as brain imaging, that can help us learn how students learn to read and what methods can be used to improve their learning.

Bloom's Taxonomy: Evaluation

Feedback: Pages: 38–39.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

110. Compare and contrast Piaget's stages of cognitive development, including the ages of individuals in each stage and a description of the traits that typify each stage.

Answer: The first stage is the sensorimotor (birth to 2 years old). The characteristics include constructing an understanding of the world by coordinating sensory experiences with physical actions. Infants progress from exhibiting reflexive and instinctive actions to the beginning of symbolic thought. The second stage is the preoperational (2 to 7 years old), and the characteristics include beginning to represent the world with words and images, which are indicative of symbolic thinking. The third stage is the concrete operational (7 to 11 years old), and the characteristics include thinking logically about concrete events and being able to classify objects into different sets. The fourth stage is the formal operational (from 11 to 15 years of age), and the characteristics include reasoning in abstract, idealistic, and logical ways.

Bloom's Taxonomy: Analysis

Feedback: Pages: 41–47.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

111. Discuss the teaching strategies for working with preoperational thinkers.

Answer: The teaching strategies for working with preoperational thinkers are to (1) ask children to make comparisons, (2) give children experience in ordering operations, (3) have children draw scenes with perspective, (4) construct an inclined plane or hill, and (5) ask children to justify their answers when they draw conclusions.

Bloom's Taxonomy: Comprehension

Feedback: Page: 45.

Learning Goal II: Discuss the development of the brain and compare the cognitive developmental theories of Jean Piaget and Lev Vygotsky.

112. Identify the organizational rules of spoken language.

Answer: The organizational rules of spoken language are (1) morphology, (2) phonology, (3) syntax, (4) pragmatics, and (5) semantics.

Bloom's Taxonomy: Knowledge

Feedback: Page: 58.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

113. Compare and contrast morphology and phonology.

Answer: These are two of the organizational rules of spoken language. Morphology refers to the smallest units of basic meaning in a language, whereas phonology refers to the smallest units of basic sound in a language.

Bloom's Taxonomy: Analysis

Feedback: Page: 58.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

114. What language skills do children acquire in infancy?

Answer: Babbling occurs in the middle of the first year, and infants usually utter their first word at about 10 to 13 months. By 18 to 24 months, infants usually have begun to string two words together. In this two-word stage, they quickly grasp the importance of language in communication, creating phrases such as "Book there," "My candy," "Mama walk," and "Give Papa."

Bloom's Taxonomy: Comprehension

Feedback: Pages: 59–60.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

115. Discuss the characteristics of language development during adolescence.

Answer: Language development during adolescence includes increasingly sophisticated use of words. As they develop abstract thinking, adolescents become much better than children at analyzing the function a word performs in a sentence. Adolescents also develop more subtle abilities with words. They make strides in understanding metaphor, which is an implied comparison between unlike things. For example, individuals "draw a line in the sand" to indicate a nonnegotiable position; a political campaign is said to be a marathon, not a sprint. And adolescents become better able to understand and to use satire, which is the use of irony, derision, or wit to expose folly or wickedness. Caricatures are an example of satire. More advanced logical thinking also allows adolescents, from about 15 to 20 years of age, to understand complex literary works.

Bloom's Taxonomy: Comprehension

Feedback: Pages: 63–64.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

116. Discuss some of the different language milestones.

Answer: Some of the language milestones are the following: (1) infants usually utter their first word at about 12 to 18 months of age; (2) at the age of 2 years, a child correctly begins to use plurals and past tense, and vocabulary increases rapidly; (3) at the age of 9 to 11 years, a child includes synonyms in word definitions; (4) at the age of 18 to 24 months, the typical child's vocabulary has reached an average of 200 words and the child can use two-word combinations; (5) at the age of 0 to 6 months, the typical child is cooing and can discriminate vowels.

Bloom's Taxonomy: Comprehension

Feedback: Pages: 59–60.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

117. Compare and contrast syntax, pragmatics, and semantics.

Answer: These are three of the organizational rules of spoken language. Syntax involves the way words are combined to form acceptable phrases and sentences. Pragmatics involves the appropriate use of conversation. Semantics refers to the meaning of words and sentences.

Bloom's Taxonomy: Analysis

Feedback: Pages 58–59.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

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118. Discuss the biological and environmental influences of language.

Answer: Noam Chomsky (1957) argued that humans are prewired to learn language at a certain time and in a certain way. The strongest evidence to support this is that children from all over the world acquire language milestones at about the same age and in the same approximate order. However, children do not learn language in a vacuum, thus there is enough variation in the development of language to justify the claim that caregivers and the environment play important roles in the acquisition of language.

Bloom's Taxonomy: Comprehension

Feedback: Pages 59–61.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

119. What language skills do children acquire during middle and late childhood?

Answer: Children gain new skills as they enter school that make it possible to learn to read and write. These include increased use of language to talk about things that are not physically present, learning what a word is, and learning how to recognize and talk about sounds. They also learn the alphabetic principle, which means that the letters of the alphabet represent sounds of the language. Vocabulary development continues at a breathtaking pace for most children during the elementary school years. After five years of word learning, a 6-year-old child does not slow down. During middle and late childhood, changes occur in the way mental vocabulary is organized. The process of categorizing becomes easier as children increase their vocabulary. Children's vocabulary increases from an average of about 14,000 words at age 6 to an average of about 40,000 words by age 11.

Bloom's Taxonomy: Comprehension

Feedback: Page 62.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

120. What is metalinguistic awareness, and how does it affect language development in children?

Answer: Advances in vocabulary and grammar during the elementary school years are accompanied by the development of metalinguistic awareness, which is knowledge about language, such as knowing what a preposition is or being able to discuss the sounds of a language. Metalinguistic awareness allows children "to think about their language, understand what words are, and even define them." It improves considerably during the elementary school years. In elementary school, defining words also becomes a regular part of classroom discourse and children increase their syntax as they study and talk about the components of sentences, such as subjects and verbs.

Bloom's Taxonomy: Comprehension

Feedback: Page 63.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

Alternative Test Items

Application Exercises

121. A class teacher draws three circles on the board and labels the circles A, B, and C. Circle A is bigger than circle B, and circle B is bigger than circle C. When the teacher asks Melanie if circle A is bigger than circle C, Melanie hesitates to answer the question because she struggles to understand the relationship between the circles in terms of their sizes. In this case, which concept is Melanie struggling to understand: the concept of transitivity or the concept of seriation?

Answer: In this case, Melanie is most likely struggling to understand the concept of transitivity.

Transitivity involves the ability to reason about and logically combine relationships. If a relation holds between a first object and a second object and also holds between the second object and a third

object, then it also holds between the first and the third objects. For example, consider three sticks (A, B, and C) of differing lengths. A is the longest, B is intermediate in length, and C is the shortest. Does a child understand that if A is longer than B and B is longer than C, then A is longer than C? In Piaget's theory, concrete operational thinkers do; preoperational thinkers do not.

Bloom's Taxonomy: Application

Feedback: Page 45.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

122. Your friend has just been hired to teach senior high school students. She asks you for help in working with concrete operational thinkers. Outline the teaching strategies for working with concrete operational thinkers for your friend.

Answer: The teaching strategies for working with concrete operational thinkers are as follows: (1) encourage students to discover concepts and principles; (2) involve children in operational tasks; (3) plan activities in which students practice the concept of ascending and descending classification hierarchies; (4) include activities that require conservation of area, weight, and displaced volume; (5) continue to ask students to justify their answers when they solve problems.

Bloom's Taxonomy: Comprehension

Feedback: Page 46.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

123. Ms. Tosetti is a kindergarten teacher at George Washington Elementary. She is having trouble with the students in her class not wanting to share, not understanding how another student feels, and telling a story as if their listeners already know many of the details that only they should know. According to Piaget, what is happening in this scenario?

Answer: Ms. Tosetti's students are all demonstrating egocentrism, which is defined as the inability to distinguish between one's own perspective and that of someone else.

Bloom's Taxonomy: Analysis

Feedback: Page: 42.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

124. Mr. Reginald notices that many students in his class encounter problems with language. Most commonly, when they say a sentence, the order of the words does not make sense, although the words are used correctly. According to language development, what is Mr. Reginald observing in his students?

Answer: Mr. Reginald is observing problems with syntax, which involves the way that words are combined to form acceptable phrases and sentences.

Bloom's Taxonomy: Analysis

Feedback: Page: 58.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

125. Connie's teacher notices that when she is around younger children, the way she speaks and what she says to them is different from the way she talks to her peers. What is Connie's teacher observing her do?

Answer: Connie's teacher is observing her use of conversation appropriately, which is called pragmatics.

Bloom's Taxonomy: Analysis

Feedback: Page: 59.

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.

126. LaTonya's teacher gives her the structure she'd like her to follow when she writes her essay. She also provides her with hints regarding common mistakes made when first writing essays and is there to provide support with how to solve any especially difficult problem LaTonya may have. According to Vygotsky, what is LaTonya's teacher demonstrating?

Answer: LaTonya's teacher is demonstrating scaffolding, which means changing the level of support. Over the course of a session, a teacher adjusts the amount of guidance, decreasing the guidance as a student learns.

Bloom's Taxonomy: Application

Feedback: Page: 51

Learning Goal III: Identify the key features of language, biological and environmental influences on language, and the typical growth of the child's language.