CHAPTER 1
HISTORY, THEORY, AND RESEARCH STRATEGIES

MULTIPLE CHOICE

1) The central questions addressed by the field of child development A) are primarily of scientific interest. B) have applied, or practical, importance. C) are based exclusively on research conducted by psychologists. D) involve all changes a person experiences throughout the lifespan.
Answer: B
Page Ref: 4
Skill: Factual
Objective: 1.1

2) Our large storehouse of information about child development A) is scientifically important, but has only limited practical value. B) has grown solely through the contributions of child development investigators. C) has grown through the combined efforts of people from many fields. D) is relevant and practical, but has limited scientific value.
Answer: C
Page Ref: 4
Skill: Factual
Objective: 1.1

3) Which of the following is true regarding the major domains of development? A) The domains of development are separate and distinct. B) Each period of development is made up of a new set of domains. C) The physical domain has little influence on the other domains. D) Development is divided into three broad domains: physical, cognitive, and emotional and social.
Answer: D
Page Ref: 5
Skill: Conceptual
Objective: 1.2

4) During which period of development does a sense of morality become evident? A) infancy and toddlerhood B) early childhood C) middle childhood D) adolescence
Answer: B
Page Ref: 6
Skill: Conceptual Objective: 1.2
5) Which of the following is true about emerging adulthood?
   A) It is a period of development that spans ages 16 to 22 years.
   B) It is a period of development unique to underdeveloped nations.
   C) Although emerging adults have moved beyond adolescence, they have not yet fully assumed adult roles.
   D) It is mostly limited to young people in developing nations.
   Answer: C
   Page Ref: 6
   Skill: Conceptual
   Objective: 1.2

6) Theories are vital tools because they
   A) provide organizing frameworks for our observations of children.
   B) provide the ultimate truth about child development.
   C) do not require scientific verification.
   D) are resistant to the influence of cultural values and belief systems.
   Answer: A
   Page Ref: 7
   Skill: Conceptual
   Objective: 1.3

7) In what important way do theories differ from mere opinion or belief? A) They are influenced by cultural values.
   B) They depend on scientific verification.
   C) Singular theories can explain all aspects of development.
   D) They cannot be tested using a fair set of research procedures.
   Answer: B
   Page Ref: 7
   Skill: Conceptual
   Objective: 1.3

8) Reid believes that the difference between the immature and the mature being is simply one of amount or complexity. Reid views development as A) discontinuous.
   B) determined by nature.
   C) continuous.
   D) determined by nurture.
   Answer: C
   Page Ref: 7
   Skill: Applied
   Objective: 1.3

9) Jessica believes that development takes place in stages where children change rapidly as they step up to a new level and then change very little for a while. Jessica views development as A) discontinuous.
   B) determined by nature.
   C) continuous.
   D) determined by nurture.
   Answer: A
   Page Ref: 8
   Skill: Applied
   Objective: 1.3

10) The stage concept assumes that
    A) development is a smooth, continuous process.
    B) change is fairly sudden rather than gradual and ongoing.
    C) infants and preschoolers respond to the world in much the same way as adults do.
    D) development is a process of gradually adding more of the same types of skills that were there to begin with.
    Answer: B
    Page Ref: 8
11) The stage concept assumes that change is A) gradual.
    B) ongoing.
    C) fairly sudden.
    D) unique for each child.
    Answer: C

12) In her research, Dr. Rosenblum explores why shy children develop differently from their outgoing agemates. Dr. Rosenblum most likely emphasizes ________ in her research.
    A) the role of distinct contexts
    B) the nature–nurture controversy
    C) the concept of stage
    D) continuous development
    Answer: A

13) Charlene believes that her daughter’s ability to think in complex ways is largely the result of an inborn timetable of growth. Charlene’s view emphasizes A) nurture.
    B) nature.
    C) plasticity.
    D) early experiences.
    Answer: B

14) Theorists who believe that children who are high or low in a characteristic will remain so at later ages typically stress the importance of A) heredity.
    B) stages.
    C) nurture.
    D) plasticity.
    Answer: A

15) Dr. Kudrow views development as open to change in response to influential experiences. Dr. Kudrow probably emphasizes
    A) stability.
    B) heredity.
    C) stages.
    D) plasticity.
    Answer: D

16) According to research on resilience, which of the following children has an increased chance of offsetting the impact of a stressful home life?
A) John, who is a talented musician  
B) Mary, who is an only child  
C) Luke, who is shy  
D) Jane, who comes from a blended family  
Answer: A

Page Ref: 10–11  
Skill: Applied  
Objective: 1.3

17) The most consistent asset of resilient children is A) high self-esteem.  
B) access to high-quality child care.  
C) a strong bond to a competent, caring adult.  
D) being identified as gifted.  
Answer: C

Page Ref: 11  
Skill: Factual  
Objective: 1.3

18) During medieval times, 
A) children dressed and acted like adults.  
B) childhood was regarded as a separate period of life.  
C) a child was viewed as a tabula rasa.  
D) childhood was not regarded as a distinct developmental period.
Answer: B

Page Ref: 11  
Skill: Factual  
Objective: 1.4

19) During the Reformation, the Puritans 
A) characterized children as innocent and close to angels.  
B) regarded children as fully mature by the time they were 7 or 8 years old.  
C) recommended permissive child-rearing practices.  
D) believed that children were born evil and had to be civilized.  
Answer: D

Page Ref: 12  
Skill: Factual  
Objective: 1.4

20) As the Puritans emigrated from England to America, they brought the belief that A) children were born innocent and self-reliant.  
B) child rearing was one of adults’ most important obligations.  
C) children were naturally endowed with a sense of right and wrong.  
D) children’s characters were shaped entirely by experience.  
Answer: B

Page Ref: 12  
Skill: Factual  
Objective: 1.4

21) According to John Locke’s view, children begin A) with a soul tainted by original sin.  
B) as nothing at all.  
C) as noble savages.  
D) as evil and stubborn.  
Answer: B

Page Ref: 12  
Skill: Factual  
Objective: 1.4

22) John Locke opposed the use of A) praise as a reward.
B) negative reinforcement.
C) physical punishment.
D) any form of discipline.
Answer: C

23) John Locke regarded development as A) continuous.
    B) mostly influenced by nature.
    C) discontinuous.
    D) highly stable.
Answer: A

24) All contemporary child development theories view children as A) naturally endowed with a sense of right and wrong.
    B) passive and emotionally fragile.
    C) adults in training.
    D) active, purposeful beings.
Answer: D

25) According to Jean-Jacques Rousseau, children are
    A) born evil and stubborn and have to be civilized.
    B) born as blank slates to be filled by adult instruction.
    C) naturally endowed with a sense of right and wrong.
    D) passive and do little to influence their own destinies.
Answer: C

26) Dr. Thigpen views development as a discontinuous, stagewise process that follows a single, unified course mapped out by nature. Dr. Thigpen’s views are most aligned with which perspective?
    A) Jean-Jacques Rousseau’s view of the child as a noble savage
    B) John Locke’s view of the child as a tabula rasa
    C) The Puritans’ view of the child as evil and stubborn
    D) Charles Darwin’s view of survival of the fittest
Answer: A

27) Which of the following is true about Charles Darwin’s contribution to developmental theories?
    A) He proved that the development of the human child followed the same general plan as the evolution of the human species.
    B) Scientific child study was born out of his first attempts to document an idea about development.
    C) He launched the normative approach, in which measures of behavior are taken on large numbers of individuals and age-related averages are computed to represent typical development.
    D) He proved that human development is a genetically determined process that unfolds automatically, much like a flower. Answer: B
Skill: Conceptual
Objective: 1.4

28) ______________ is generally regarded as the founder of the child-study movement.
   A) John Locke
   B) Jean-Jacques Rousseau
   C) Charles Darwin
   D) G. Stanley Hall

   Answer: D
   Page Ref: 13

Skill: Factual
Objective: 1.4

29) Inspired by Charles Darwin’s work, G. Stanley Hall and his student, Arnold Gesell, A) were the first theorists to focus on the role of nurture in human development.
   B) collected detailed normative information on children’s behavior and characteristics.
   C) developed the concept of a sensitive period in human development.
   D) constructed the first intelligence test.

   Answer: B
   Page Ref: 13

Skill: Factual
Objective: 1.4

30) Along with Benjamin Spock’s Baby and Child Care, _____________ ’s books became a central part of a rapidly expanding popular literature for parents.
   A) G. Stanley Hall
   B) Alfred Binet
   C) Theodore Simon
   D) Arnold Gesell

   Answer: D
   Page Ref: 14

Skill: Factual
Objective: 1.4

31) Alfred Binet and Theodore Simon’s intelligence test was developed as a way to
   A) identify children with learning problems who needed to be placed in special classes.
   B) accurately predict school achievement and vocational success.
   C) document developmental improvements in children’s intellectual functioning.
   D) measure individual differences in development as a function of race, gender, and birth order. Answer: A

   Page Ref: 14

Skill: Factual
Objective: 1.4

32) The psychoanalytic perspective emphasizes
   A) normative information that represents typical development.
   B) the unique history of each child.
   C) stimuli and responses.
   D) modeling or imitation.

   Answer: B
   Page Ref: 15

Skill: Conceptual
Objective: 1.5

33) Sigmund Freud’s psychosexual theory
   A) was developed through careful observations of his own children.
   B) emphasizes that how parents manage their child’s fears is crucial for healthy sexual development.
   C) emphasizes five parts of the personality that become integrated during a sequence of three stages.
D) was developed through having emotionally troubled adults talk freely about painful events of their childhoods. Answer: D

Page Ref: 15
Skill: Factual
Objective: 1.5

34) According to Freud, the ________ is the conscious, rational part of personality.
   A) id
   B) ego
   C) superego
   D) superid

Answer: B
Page Ref: 15
Skill: Factual
Objective: 1.5

35) Freud’s theory was the first to stress the influence of ________ on development.
   A) observational learning
   B) rewards and punishment
   C) cultural norms
   D) the early parent–child relationship

Answer: D
Page Ref: 15
Skill: Factual
Objective: 1.5

36) Erik Erikson was one of the first theorists to
A) study the nature–nurture controversy.
   B) focus on the impact of early experiences on later behavior.
   C) recognize the lifespan nature of development.
   D) view children as passive beings.

Answer: C
Page Ref: 15
Skill: Factual
Objective: 1.5

37) Which of the following is a reason the psychoanalytic perspective is no longer in the mainstream of child development research?
A) Many psychoanalytic ideas, such as ego functioning, are too vague to be tested empirically.
B) Psychoanalytic theorists accept the clinical method in which age-related averages are computed to represent typical development.
C) Modern researchers have demonstrated that personality development does not take place in stages.
D) Psychoanalytic theorists became isolated from the rest of the field because they failed to consider the early parent–child relationship.

Answer: A
Page Ref: 17
Skill: Conceptual Objective: 1.5

38) According to behaviorism, ________ are the appropriate focus of psychological research.
A) stimuli and responses
B) unconscious impulses and drives
C) adaptive evolutionary behavior patterns
D) nonobservable events

Answer: A
Page Ref: 17
Skill: Factual
Objective: 1.5
39) Ivan Pavlov taught dogs to salivate at the sound of a bell by using A) operant conditioning.  
 B) classical conditioning.  
 C) innate reflexes.  
 D) modeling.  
Answer: B  
Page Ref: 17  
Skill: Factual  
Objective: 1.5

40) When John Watson taught Albert, an 11-month-old infant, to fear a neutral stimulus by presenting it several times with a sharp, loud sound, Watson applied ________________ to children's behavior.  
 A) innate reflexes  
 B) observational learning  
 C) classical conditioning  
 D) operant conditioning  
Answer: C  
Page Ref: 17  
Skill: Factual  
Objective: 1.5

41) Consistent with Locke's tabula rasa, John Watson concluded that ________________ is the supreme force in development.  
 A) nature  
 B) early experience  
 C) environment  
 D) cognition  
Answer: C  
Page Ref: 17  
Skill: Conceptual Objective: 1.5

42) On a few occasions, Jack's mother gave him candy to keep him quiet when she took him to the doctor's office. Now every time Jack goes to the doctor's office, he asks his mother for candy. This is an example of A) classical conditioning.  
 B) operant conditioning.  
 C) observational learning.  
 D) modeling.  
Answer: B  
Page Ref: 17  
Skill: Applied  
Objective: 1.5

43) According to B. F. Skinner, the frequency of a behavior can be increased by following it with a wide variety of A) punishments.  
 B) negative stimuli.  
 C) stimulus–response associations.  
 D) reinforcers.  
Answer: D  
Page Ref: 17  
Skill: Conceptual Objective: 1.5

44) Every time 10-month-old Rita eats a pea, her father claps and says, —Good girl!! In response to her father's praise, Rita excitedly eats the remaining peas. Rita's behavior is an example of A) classical conditioning.  
 B) modeling.  
 C) behavior modification.  
 D) operant conditioning.  
Answer: D
45) Which of the following is true about social learning theory?
   A) It emphasizes modeling, also known as imitation or observational learning, as a powerful source of development. B) It maintains that behaviorism offers little or no effective explanation of the development of children’s social behavior. C) It is criticized because it places little emphasis on how children are influenced by the behavior of their parents and peers. D) It emphasizes classical over operant conditioning and relies heavily on the precise concepts of psychoanalytic theory.
   Answer: A

46) At home, Paul’s parents hit him as punishment for misbehavior. At preschool, Paul angrily hits a playmate who takes his toy. According to social learning theory, Paul is displaying A) classical conditioning. B) operant conditioning. C) behavior modification. D) observational learning.
   Answer: D

47) The most recent revision of Albert Bandura’s theory places such a strong emphasis on how children think about themselves and other people that he calls it a(n) ___________________ rather than a(n) ___________________ approach. A) observational learning; social-cognitive B) social-cognitive; social learning C) social learning; cognitive D) social learning; observational learning
   Answer: B

48) Which of the following is an example of behavior modification?
   A) letting children with acute burn injuries play a virtual reality game while nurses engage in the painful process of changing their bandages B) modeling quiet reading for children to teach them to sit quietly while they read C) talking with children about fears in an attempt to uncover the underlying cause of thumb sucking D) taking away a treasured toy for an increased amount of time each time a child bites his or her nails
   Answer: A

49) Both behaviorism and social learning theory have been criticized for
   A) overestimating children’s contributions to their own development. B) presenting ideas that are too vague to test empirically. C) emphasizing nature over nurture. D) underestimating children’s contributions to their own development.
   Answer: D
Skill: Conceptual  
Objective: 1.5

50) According to Jean Piaget’s cognitive-developmental theory,  
A) development must be understood in relation to each child’s culture.  
B) children’s sense of self-efficacy guides their responses in particular situations.  
C) children actively construct knowledge as they interact with their world.  
D) children’s learning depends on reinforcers, such as rewards from adults.  
Answer: C  
Page Ref: 19  
Skill: Conceptual  
Objective: 1.5

51) The biological concept of ____________ is central to Piaget’s theory.  
A) reinforcement  
B) adaptation  
C) imitation  
D) physical growth  
Answer: B  
Page Ref: 19  
Skill: Factual  
Objective: 1.5

52) According to Piaget, ________ lead(s) to more advanced ways of thinking.  
A) children’s observation of adults  
B) brain growth  
C) punishment and reinforcement  
D) children’s efforts to achieve equilibrium  
Answer: D  
Page Ref: 19  
Skill: Conceptual  
Objective: 1.5

53) Development of language and make-believe play take place in Piaget’s ____________ stage.  
A) sensorimotor  
B) preoperational  
C) concrete operational  
D) formal operational  
Answer: B  
Page Ref: 19  
Skill: Factual  
Objective: 1.5

54) According to Piaget’s theory, in the sensorimotor stage, children  
A) can think of all possible outcomes in a scientific problem.  
B) organize objects into hierarchies of classes and subclasses.  
C) think by acting on the world with their eyes, ears, hands, and mouth.  
D) can evaluate the logic of verbal statements without referring to real-world circumstances. Answer: C  
Page Ref: 19  
Skill: Conceptual  
Objective: 1.5

55) Children can evaluate the logic of verbal statements without referring to real-world circumstances in Piaget’s ____________ stage.  
A) sensorimotor  
B) preoperational  
C) concrete operational  
D) formal operational  

56) A classroom environment based on Piaget’s theory of cognitive development would likely emphasize A) joint problem solving with older children or adults.
   B) reinforcing children with tokens they could exchange for treats.
   C) formal mathematics and language drills.
   D) discovery learning and direct contact with the environment.
Answer: D
Page Ref: 20
Skill: Applied
Objective: 1.5

57) Which of the following is a limitation of Piaget’s theory?
   A) He overestimated the competencies of infants and young children.
   B) Adolescents generally reach their full intellectual potential in all areas, regardless of education and experience.
   C) Children’s performance on Piagetian problems can be improved with training.
   D) Piaget’s stagewise account overemphasizes social and cultural influences on development. Answer: C
Page Ref: 21
Skill: Conceptual
Objective: 1.5

58) Dr. Brewer views the human mind as a symbol-manipulating system through which information flows. Dr. Brewer’s view is consistent with
   A) information processing.
   B) ethology.
   C) behaviorism.
   D) sociocultural theory.
Answer: A
Page Ref: 21
Skill: Applied
Objective: 1.6

59) Information-processing researchers often use _____________ to map the precise steps individuals use to solve problems and complete tasks.
   A) clinical interviews
   B) flowcharts
   C) imprinting
   D) social mediation
Answer: B
Page Ref: 21
Skill: Factual
Objective: 1.6

60) In a research study, 10-year-old Joe was given a pile of blocks varying in size, shape, and weight and was asked to build a bridge over a —river (painted on a floor map) that was too wide for any single block to span. The researcher carefully tracked Joe’s efforts using a flowchart. The researcher was probably applying which recent theoretical perspective? A) ecological systems theory
   B) evolutionary developmental psychology
   C) information processing
   D) sociocultural theory
Answer: C
Page Ref: 22
Skill: Applied
Objective: 1.6

61) Both Piaget’s theory and the information-processing perspective
   A) regard children as active beings who modify their own thinking in response to environmental demands.
   B) focus on the development of imagination and creativity.
   C) regard perception, memory, and problem solving as similar at all ages.
   D) emphasize the importance of equilibration in producing higher levels of thinking. Answer: A
Page Ref: 22

Skill: Conceptual
Objective: 1.6

62) A great strength of the information-processing approach is its commitment to A) field work.
   B) clinical interviews.
   C) rigorous research methods.
   D) structured observations.
Answer: C
Page Ref: 22

Skill: Conceptual
Objective: 1.6

63) The information-processing perspective has little to say about A) linear cognition.
   B) how children think at different ages.
   C) logical cognition.
   D) imagination and creativity.
Answer: D
Page Ref: 23

Skill: Conceptual
Objective: 1.6

64) Dr. Grief studies the relationship between changes in the brain and the developing child’s cognitive processing and behavior patterns. Dr. Grief would most likely consider herself to be a(n) A) behaviorist.
   B) developmental cognitive neuroscientist.
   C) evolutionary developmental psychologist.
   D) information-processing researcher.
Answer: B
Page Ref: 23

Skill: Applied
Objective: 1.6

65) Sociocultural theory, ethology, ecological systems theory, and dynamic system theory all focus on A) contexts for development.
   B) the adaptive value of behavior.
   C) children’s biological makeup.
   D) how culture is transmitted to the next generation.
Answer: A
Page Ref: 23–29

Skill: Conceptual Objective:
1.6

66) Which recent theoretical perspective is concerned with the adaptive, or survival, value of behavior and its evolutionary history?
   A) information processing
   B) ethology
   C) sociocultural theory
   D) ecological systems theory
Answer: B
67) Observations of imprinting led to which of the following major concepts in child development?
   A) behavior modification
   B) observational learning
   C) the critical period
   D) the chronosystem
   Answer: C

68) Why does the term sensitive period apply better to human development than does the notion of a critical period? A) Its boundaries are less well-defined than are those of a critical period.
   B) Its boundaries are more well-defined than are those of a critical period.
   C) There are more sensitive periods than critical periods in human development.
   D) Sensitive periods, but not critical periods, have been empirically tested.
   Answer: A

69) Dr. McMath is an evolutionary developmental psychologist. Which of the following is probably true about Dr. McMath?
   A) He is primarily concerned with the genetic and biological basis of development.
   B) He wants to understand the entire organism–environment system.
   C) He is primarily concerned with environmental influences on development.
   D) He focuses on how culture is transmitted to the next generation.
   Answer: B

70) According to Vygotsky’s theory,
   A) today’s lifestyles differ so radically from those of our evolutionary ancestors that certain evolved behaviors are no longer adaptive.
   B) children shape their own development during both sensitive and critical developmental periods.
   C) children revise incorrect ideas in their ongoing efforts to achieve equilibrium between internal structures and everyday information.
   D) social interaction is necessary for children to acquire the ways of thinking and behaving that make up a community’s culture.
   Answer: D

71) Vygotsky’s theory has been especially influential in the study of children’s A) physical growth.
   B) cognition.
   C) emotional development.
   D) gender identity.
   Answer: B

72) Unlike Piaget, Vygotsky
   A) emphasized children’s capacity to shape their own development.
B) viewed cognitive development as a socially mediated process.
C) believed that children undergo certain stagewise changes.
D) focused on discontinuous change.
Answer: B

73) Which of the following behaviors is consistent with Vygotsky’s theory?
   A) When his mother takes him to the grocery store, Tom is well-behaved because he knows that his mother will reward him with candy.
   B) When playing in her sandbox, Amy builds the same sort of castle that she observed her best friend building yesterday.
   C) Yesica, a child candy seller with no schooling, develops sophisticated mathematical abilities as a result of her work.
   D) When working on her math homework, Michelle tries several solutions before she arrives at the correct answer. Answer: C

74) Which of the following is a limitation of Vygotsky’s sociocultural theory? A) It neglects the biological side of development.
   B) It overemphasizes the biological side of development.
   C) It overemphasizes children’s capacity to shape their own development.
   D) It places little emphasis on joint experiences.
Answer: A

75) Which recent theoretical perspective views children as developing within a complex system of relationships affected by multiple levels of the surrounding environment?
   A) information processing
   B) ethology
   C) sociocultural theory
   D) ecological systems theory
Answer: D

76) In Bronfenbrenner’s ecological systems theory, the ___________ includes interactions between the child and the immediate environment.
   A) microsystem
   B) mesosystem
   C) exosystem
   D) macrosystem
Answer: A

77) In Bronfenbrenner’s ecological systems theory, the _______________ encompasses connections between microsystems, such as home, school, and neighborhood.
   A) mesosystem
   B) exosystem
   C) macrosystem
Answer: B
78) According to ecological systems theory, a parent’s workplace is in the A) microsystem.  
B) mesosystem.  
C) exosystem.  
D) macrosystem.  
Answer: C

79) According to Urie Bronfenbrenner, the environment A) is a static force.  
B) is ever-changing.  
C) affects children in a uniform way.  
D) is less important to development than heredity.  
Answer: B

80) Dr. Jones believes that a child’s mind, body, and physical and social worlds form an integrated system that guides mastery of new skills. The system is constantly in motion. His view is consistent with which recent theoretical perspective?  
A) evolutionary developmental psychology  
B) sociocultural theory  
C) ecological systems theory  
D) dynamic systems perspective  
Answer: D

81) Dynamic systems theorists emphasize that  
A) children are driven mainly by instincts and unconscious motives.  
B) different skills vary in maturity within the same child.  
C) sensitive periods are key to understanding development.  
D) development can be best understood in terms of its adaptive value. Answer: B

82) Which of the following recent theoretical perspectives can best explain why Easton never crawled on his hands and knees before he learned how to walk?  
A) ecological systems theory  
B) sociocultural theory  
C) evolutionary developmental psychology  
D) dynamic systems perspective  
Answer: D
83) Which major theory focuses on emotional development?
   A) psychoanalytic theory
   B) ethology
   C) behaviorism
   D) ecological systems theory
   Answer: A
   Page Ref: 29
   Skill: Conceptual
   Objective: 1.7

84) Both ________ and ________ stress changes in thinking.
   A) behaviorism; social learning theory
   B) cognitive-developmental theory; information-processing theory
   C) ethology; psychoanalytic theory
   D) dynamic systems theory; ecological systems theory
   Answer: B
   Page Ref: 29
   Skill: Conceptual
   Objective: 1.7

85) Both _________ and _____________ emphasize many possible courses of development.
   A) the psychoanalytic perspective; ethology
   B) ethology; evolutionary developmental psychology
   C) Piaget’s cognitive-developmental theory; behaviorism
   D) behaviorism; social learning theory
   Answer: D
   Page Ref: 29
   Skill: Conceptual
   Objective: 1.7

86) A major limitation of naturalistic observation is that
   A) the findings cannot be generalized beyond the participants and settings in which the research was originally conducted.
   B) researchers cannot control the conditions under which participants are observed.
   C) the research may not yield observations typical of participants’ behavior in everyday life.
   D) participants may not accurately report their thoughts, feelings, and experiences.
   Answer: B
   Page Ref: 31, 32
   Skill: Conceptual
   Objective: 1.8

87) Dr. Brown observes behavior in a laboratory, where conditions are the same for all participants. This is an example of A) the clinical method.
   B) a structured observation.
   C) a naturalistic observation.
   D) an ethnography.
   Answer: B
   Page Ref: 31–32
   Skill: Applied
   Objective: 1.8

88) A major advantage of structured observation is that it
   A) is useful for studying behaviors that investigators rarely have an opportunity to see in everyday life.
   B) permits participants to display their thoughts in terms that are as close as possible to the way they think in everyday life.
   C) yields richly detailed narratives that offer valuable insight into the many factors that affect development.
   D) allows researchers to see the behavior of interest as it occurs in natural settings. Answer: A
89) Dr. Kempsell combines interviews, observations, and test scores to obtain a full picture of one individual’s psychological functioning. This is an example of A) naturalistic observation.  
B) structured observation.  
C) a structured interview.  
D) the clinical method.  
Answer: D  
Page Ref: 32  
Skill: Applied  
Objective: 1.8

90) Dr. Stephens would like to obtain rich, descriptive insights into processes of development of one individual. Which of the following methods is best suited to meet Dr. Stephens’ needs?  
A) naturalistic observation  
B) a case study  
C) structured observation  
D) a clinical interview  
Answer: B  
Page Ref: 32  
Skill: Applied  
Objective: 1.8

91) Which of the following is true about structured observation?  
A) It permits greater control over the research situation than does naturalistic observation.  
B) It is especially useful for studying behaviors commonly seen in everyday life.  
C) It usually takes place in the field, or natural environment, rather than in the laboratory.  
D) It provides rich, descriptive insights into processes of development of one individual.  
Answer: A  
Page Ref: 32  
Skill: Conceptual  
Objective: 1.8

92) Self-reports  
A) are usually very accurate.  
B) ask research participants to provide information on their thoughts, beliefs, and experiences.  
C) tell researchers little about the reasoning behind how participants behave.  
D) are always highly structured.  
Answer: B  
Page Ref: 32, 33  
Skill: Conceptual  
Objective: 1.8

93) A strength of the clinical interview is that  
A) it can provide a large amount of information in a fairly brief period.  
B) it provides highly objective and generalizable data.  
C) it accurately assesses even those participants who have low verbal ability and expressiveness.  
D) each participant is asked the same questions in the same way.  
Answer: A  
Page Ref: 33  
Skill: Factual  
Objective: 1.8

94) One major limitation of the clinical interview is  
A) it does not provide much insight into participants’ reasoning or ideas.  
B) it requires extensive training to interpret.
95) Structured interviews are limited because they
   A) are less efficient than clinical interviews.
   B) do not yield the same depth of information as clinical interviews.
   C) are more time consuming to carry out compared to clinical interviews.
   D) are overly flexible and sometimes confusing.
   Answer: B
   Page Ref: 33
   Skill: Factual
   Objective: 1.8

96) Dr. Jaster is interested in children’s dreams. He recruits students from two public schools in his community and administers the same questionnaire to several large groups. Dr. Jaster is using a(n) A) biased interviewing technique. B) case study method. C) structured interview. D) ethnographic approach.
   Answer: C
   Page Ref: 33
   Skill: Applied
   Objective: 1.8

97) The clinical method is well-suited to
   A) studying a culture or a distinct social group through participant observation.
   B) providing a large amount of information in a relatively brief period.
   C) studying the development of certain types of individuals who are few in number but vary widely in characteristics.
   D) asking multiple participants the same questions in the same way.
   Answer: C
   Page Ref: 34
   Skill: Factual
   Objective: 1.8

98) Dr. Snyder used the clinical method to obtain a richly detailed case narrative about Charlie, a 10-year-old college student. Dr. Snyder should be aware that
   A) information collected using the clinical method cannot offer insight into factors affecting development.
   B) he cannot assume that his conclusions apply, or generalize, to anyone other than Charlie.
   C) the information will help him understand the cultural group to which Charlie belongs.
   D) ethical guidelines will limit their contact to one or two sessions.
   Answer: B
   Page Ref: 34
   Skill: Applied
   Objective: 1.8

99) Dr. Newman spent three years in Botswana, participating in the daily life of a community there. She gathered extensive field notes, consisting of a mix of self-reports from members of the community and her own observations. Which research method did Dr. Newman most likely use in her research?
   A) ethnography
   B) structured observation
   C) the microgenetic design
   D) the case study method
   Answer: A
   Page Ref: 34–35
100) Which of the following research methods utilizes participant observation?
   A) the clinical method  
   B) naturalistic observation  
   C) ethnography  
   D) structured observation  
   Answer: C  
   Page Ref: 34–35

101) Which of the following is a limitation of the ethnographic method?
   A) Research may not yield observations typical of participants’ behavior in everyday life.
   B) Research does not yield as much information as naturalistic observations or structured interviews.
   C) Commonly used research techniques tend to ignore cultural and social influences that affect development.
   D) Investigators’ cultural values and theoretical commitments sometimes lead them to observe selectively or misinterpret what they see.
   Answer: D  
   Page Ref: 35

102) In the United States, children who are first-generation and second-generation immigrants A) are more likely than children of native-born parents to use drugs and alcohol.
   B) report lower self-esteem as compared to children of native-born parents.
   C) graduate from high school at similar or greater overall rates than students of native-born parents.
   D) are more likely than children of native-born parents to commit delinquent acts.
   Answer: C  
   Page Ref: 36 Box: CI: Immigrant Youths: Adapting to a New Land

103) Immigrant parents of successful youths typically
   A) view school successes as less important than native-born parents.
   B) develop close ties to an ethnic community.
   C) encourage full assimilation into the majority culture.
   D) stress individualistic values over collectivist values.
   Answer: B  
   Page Ref: 36 Box: CI: Immigrant Youths: Adapting to a New Land

104) Which of the following is true about the correlational design?
   A) Researchers gather information on individuals, generally in natural life circumstances, and make no effort to alter their experiences.
   B) Unlike the experimental design, it permits inferences of cause and effect.
   C) Researchers use an evenhanded procedure to assign people to two or more treatment conditions.
   D) In an experiment, the events and behaviors of interest are divided into independent and dependent variables.
   Answer: A  
   Page Ref: 37
105) The major limitation of correlational studies is that
   A) the findings do not provide information about how people behave outside the laboratory.
   B) the findings do not reveal relationships between participants’ characteristics and their behavior.
   C) researchers cannot make inferences about cause and effect.
   D) the results cannot be generalized to other people and settings.
   Answer: C
   Page Ref: 37
   Skill: Conceptual
   Objective: 1.9

106) In interpreting a correlation coefficient,
   A) the magnitude of the number shows the direction of the relationship.
   B) the sign of the number shows the strength of the relationship.
   C) a positive sign means that as one variable increases, the other decreases.
   D) a zero correlation indicates no relationship.
   Answer: D
   Page Ref: 37
   Skill: Factual
   Objective: 1.9

107) Dr. Brenneman’s research shows that participation in music programs is positively related to grades in school. Based on the findings from this one study, what can Dr. Brenneman conclude? A) Participating in music programs causes grades to decrease.
   B) Participating in music programs causes grades to increase.
   C) Children who participate in music programs have higher grades.
   D) Children who participate in music programs have lower grades.
   Answer: C
   Page Ref: 37
   Skill: Applied
   Objective: 1.9

108) A correlation of +.55 between preschool attendance and self-esteem indicates that children who attend preschool have
   A) moderately higher self-esteem scores than children who do not attend preschool.
   B) significantly higher self-esteem scores than children who do not attend preschool.
   C) have significantly lower self-esteem scores than children who do not attend preschool.
   D) have moderately lower self-esteem scores than children who do not attend preschool. Answer: A
   Page Ref: 37
   Skill: Applied
   Objective: 1.9

109) A(n) ________ permits inferences about cause and effect.
   A) correlation coefficient
   B) experimental design
   C) correlational design
   D) case study
   Answer: B
   Page Ref: 37
   Skill: Factual
   Objective: 1.9

110) The independent variable is the one that
   A) the investigator expects to be influenced by another variable.
   B) is randomly assigned.
   C) shows the strength of the correlational relationship.
   D) the investigator expects to cause changes in another variable.
111) In an experiment examining whether a specific type of intervention improves the psychological adjustment of shy children, the independent variable would be the A) type of intervention.  
B) number of children in the subject pool who are shy.  
C) number of shy children who benefit from the intervention.  
D) measure of psychological adjustment.  
Answer: A
Page Ref: 37
Skill: Factual  
Objective: 1.9

112) In the same experiment examining whether a specific type of intervention improves the psychological adjustment of shy children, the dependent variable would be the A) type of intervention.  
B) number of children in the subject pool who are shy.  
C) number of shy children who benefit from the intervention.  
D) measure of psychological adjustment.  
Answer: D
Page Ref: 37
Skill: Applied  
Objective: 1.9

113) When a researcher directly controls or manipulates changes in an independent variable by exposing participants to the treatment conditions,  
A) she is conducting a correlational study.  
B) cause-and-effect relationships can be detected.  
C) the correlational coefficient should be zero.  
D) she is using a technique called matching.  
Answer: B
Page Ref: 37–38
Skill: Conceptual  
Objective: 1.9

114) Professor Hudgens is studying the impact of adults’ angry interactions on children’s adjustment. To determine which participants are exposed to each treatment condition, Professor Hudgens draws the participants’ names out of a hat. Professor Hudgens is using A) matching.  
B) random assignment.  
C) experimental assignment.  
D) cross-sectioning.  
Answer: B
Page Ref: 38
Skill: Applied  
Objective: 1.9

115) Dr. Riley wanted to know if adolescent computer use has an immediate effect on their sustained attention. Dr. Riley assigned participants into one of two groups (computer use vs. no computer use) by flipping a coin. Dr. Riley used A) matching.  
B) random assignment.  
C) a correlational design.  
D) a field experiment.  
Answer: B
Page Ref: 38
Skill: Applied  
Objective: 1.9
116) One way Professor Hudgens could use the matching technique to assign the participants to the experimental conditions would be to
   A) flip a coin or draw names out of a hat.
   B) let the parents choose in which experimental group they would like their children to participate.
   C) assign equal numbers of children with high and low parental conflict to each treatment condition.
   D) let the children choose in which experimental group they would like to participate. Answer: C

117) Professor Spinner wanted to compare how children from different family environments made friends at school. He carefully chose participants to ensure that their characteristics were as much alike as possible. Professor Spinner observed the participants in the school setting. Professor Spinner used A) a laboratory experiment.
   B) random assignment.
   C) a field experiment.
   D) a correlational design. Answer: C

118) In ___________ experiments, control over the treatment is usually weaker than in ___________ experiments.
   A) laboratory; natural
   B) laboratory; field
   C) field; laboratory
   D) correlational; field Answer: C

119) In quasi-experiments,
   A) random assignment helps protect against reduction in the accuracy of the findings.
   B) researchers combine random assignment with the matching technique.
   C) cause-and-effect inferences cannot be made.
   D) lack of random assignment substantially reduces the precision of the research. Answer: D

120) Professor Yang wondered if parenting style is related children’s achievement test scores. Professor Yang gathered information on the participants, but made no effort to alter their experiences. Professor Yang used A) a correlational design.
    B) random assignment.
    C) experimental design.
    D) a natural experiment. Answer: A

121) In a ___________, participants are studied repeatedly, and changes are noted as they get older. A) correlational design
    B) longitudinal design
    C) cross-sectional study
    D) sequential design Answer: B
122) One limitation of the longitudinal design is it
A) does not permit the study of individual development.
B) requires intensive study of participants’ moment-by-moment behaviors.
C) may distort age-related changes because of biased sampling or cohort effects.
D) is more efficient than cross-sectional design, but less efficient than microgenetic design. Answer: C

123) Two strengths of longitudinal design are that researchers can _______ and _______.
A) collect a large amount of data in a short time span; identify both common patterns and individual differences
B) explore similarities among children of different ages at the same time; examine relationships between early and later behaviors
C) collect a large amount of data in a short time span; explore similarities among children of different ages at the same time
D) identify both common patterns and individual differences; examine relationships between early and later behaviors Answer: D

124) To examine whether children’s popularity was stable or changed across the years, Dr. Clique followed a group of children from ages 5 to 18 years. This is an example of a _______ design.
A) sequential
B) microgenetic
C) cross-sectional
D) longitudinal Answer: D

125) Dr. Stamina’s longitudinal study on Native American personality styles was criticized because he failed to enlist participants who adequately represented the Native American population. This limitation is known as A) cohort effects.
B) selective attrition.
C) practice effects.
D) biased sampling. Answer: D

126) The most widely discussed threat to the accuracy of longitudinal findings is A) practice effects.
B) cohort effects.
C) selective attrition.
D) biased sampling. Answer: B

127) Cohort effects occur when
A) participants in longitudinal studies become —test-wise.
B) specific experiences influence some children but not others in the same generation.
C) participants move away or drop out of a longitudinal study.
D) participants in a research study have a special appreciation for the scientific value of research. Answer: B

Page Ref: 41
Skill: Conceptual
Objective: 1.10

128) Dr. Kirk wants to study sibling relationships at differing ages. Dr. Kirk has children with one or more siblings in grades 3, 6, 9, and 12 complete his questionnaire. This is an example of a ______________ study. A) cross-sectional
B) longitudinal
C) microgenetic
D) sequential Answer: A

Page Ref: 41
Skill: Applied
Objective: 1.10

129) Because participants are measured only once in the cross-sectional design, researchers need not be concerned about difficulties like _____________ and ____________.
A) cohort effects; practice effects
B) selective attrition; cohort effects
C) cohort effects; biased sampling
D) participant dropout; practice effects
Answer: D

Page Ref: 41
Skill: Factual
Objective: 1.10

130) A disadvantage of cross-sectional research is that
A) it is more inefficient and inconvenient than longitudinal research.
B) it does not provide evidence about change at the individual level.
C) it can be threatened by practice effects and participant dropout.
D) age-related changes cannot be examined.
Answer: B

Page Ref: 41
Skill: Conceptual Objective: 1.10

131) In an effort to overcome some of the limitations of traditional developmental designs, Dr. Francisco conducted several similar cross-sectional studies at varying times. Dr. Francisco used the ______________ design. A) longitudinal
B) experimental
C) sequential
D) correlational
Answer: C

Page Ref: 42
Skill: Applied
Objective: 1.10

132) One advantage of the sequential design is that
A) researchers can find out whether cohort effects are operating by comparing participants of the same age who were born in different years.
B) it permits cause-and-effect inferences by studying groups of people differing in age at the same point in time.
C) it presents participants with a novel task and follows their mastery over a series of closely spaced sessions.
D) it is especially useful for studying the strategies children use to acquire new knowledge in reading and science. Answer: A
133) Using the ____________ design, researchers observe how developmental change occurs. A) longitudinal  
B) cross-sectional  
C) sequential  
D) microgenetic  
Answer: D  

134) Professor Story is interested in studying how children acquire new reading strategies. The best design for Professor Story to use would be the ____________ design.  
A) longitudinal  
B) microgenetic  
C) cross-sectional  
D) sequential  
Answer: B  

135) One limitation of microgenetic studies is that  
A) participant dropout often distorts developmental trends.  
B) they are difficult to carry out.  
C) they often create ethical issues.  
D) cohort effects often limit the generalizability of the findings.  
Answer: B  

136) When children take part in research, the ethical concerns are especially complex because  
A) children are less vulnerable than adults to physical harm.  
B) immaturity makes it difficult for children to evaluate for themselves what participation in research will mean.  
C) while adults are more vulnerable to psychological harm, children are sometimes exploited.  
D) children do not have the same privacy rights as adults.  
Answer: B  

137) The ―Mozart effect‖  
A) only applies to infants and young toddlers.  
B) lasts only about 15 minutes.  
C) is easily replicated in participants of all ages.  
D) results in IQ gains of 10 to 15 points.  
Answer: B  

138) Sustained musical experiences, such as music lessons, can lead to  
A) substantial increases in intelligence that do not arise from comparable drama lessons.
B) substantial decreases in social maturity that do not arise from comparable drama lessons.
C) small increases in intelligence that do not arise from comparable drama lessons.
D) small increases in social maturity that do not arise from comparable drama lessons.
Answer: C

Page Ref: 44 Box: SI: Education: Can Musical Experiences Enhance Intelligence?
Skill: Conceptual Objective: 1.10

139) An investigator wanted to speak candidly with high school students about their drug use. He felt that the students would be more honest if their parents were unaware that they were participating in the study. If the investigator chooses to interview the students without their parents’ knowledge, he will violate which of the following children’s research rights?
A) privacy
B) protection from harm
C) informed consent
D) beneficial treatments
Answer: C

Page Ref: 45
Skill: Applied
Objective: 1.11

140) A researcher studying the effects of a certain pain reliever on children with chronic pain gave one group of children the pain medication and gave a placebo (or sugar pill) to another group of children. This violates which of the following children’s research rights?
A) privacy
B) beneficial treatments
C) informed consent
D) knowledge of results
Answer: B

Page Ref: 45
Skill: Applied
Objective: 1.11

141) The ultimate responsibility for the ethical integrity of research with children lies with the A) investigator.
B) institutional review board.
C) child.
D) child’s parents.
Answer: A

Page Ref: 45
Skill: Factual
Objective: 1.11

142) After Dr. Busch completes his research interviews, he provides each participant with a full account and justification of the activities. Dr. Busch is engaging in A) debriefing.
B) informed consent.
C) presenting research results.
D) unethical research methods.
Answer: A

Page Ref: 46
Skill: Applied
Objective: 1.11

ESSAY

143) Describe the five periods of development, and identify the new capacities and social expectations that serve as important transitions during each period. Answer:

• The prenatal period: from conception to birth. In this nine-month period, the most rapid time of change, a one-celled organism is transformed into a human baby with remarkable capacities for adjusting to life in the surrounding world.
• **Infancy and toddlerhood: from birth to 2 years.** This period brings dramatic changes in the body and brain that support the emergence of a wide array of motor, perceptual, and intellectual capacities; the beginnings of language; and first intimate ties to others. Infancy spans the first year; toddlerhood spans the second, during which children take their first independent steps, marking a shift to greater autonomy.

• **Early childhood: from 2 to 6 years.** The body becomes longer and leaner, motor skills are refined, and children become more self-controlled and self-sufficient. Make-believe play blossoms, supporting every aspect of psychological development. Thought and language expand at an astounding pace, a sense of morality becomes evident, and children establish ties with peers.

• **Middle childhood: from 6 to 11 years.** Children learn about the wider world and master new responsibilities that increasingly resemble those they will perform as adults. Hallmarks of this period are improved athletic abilities; participation in organized games with rules; more logical thought processes; mastery of reading, writing, math, and other academic knowledge and skills; and advances in understanding the self, morality, and friendship.

• **Adolescence: from 11 to 18 years.** This period initiates the transition to adulthood. Puberty leads to an adult-sized body and sexual maturity. Thought becomes abstract and idealistic, and schooling is increasingly directed toward preparation for higher education and the world of work. Young people begin to establish autonomy from the family and to define personal values and goals. *Page Ref: 6*

144) What is resilience? What are the four broad factors that seem to offer protection from the damaging effects of stressful life events? What is the most consistent asset of resilient children?

Answer: Resilience is the ability to adapt effectively in the face of threats to development. Four broad factors seem to offer protection from the damaging effects of stressful life events:

1. **Personal characteristics:** A child’s biologically endowed characteristics can reduce exposure to risk or lead to experiences that compensate for early stressful events.

2. **A warm parental relationship:** A close relationship with at least one parent who provides warmth, appropriately high expectations, monitoring of the child’s activities, and an organized home environment fosters resilience.

3. **Social support outside the immediate family:** For children who do not have a close bond with either parent, a grandparent, aunt, uncle, or teacher who forms a special relationship with the child can promote resilience.

4. **Community resources and opportunities:** Good schools, convenient and affordable healthcare and social services, libraries, and recreation centers foster both parents’ and children’s well-being.

   The most consistent asset of resilient children is a strong bond to a competent, caring adult. *Page Ref: 10–11*

145) Compare and contrast the terms critical period and sensitive period, and discuss how observations of imprinting led to the development of these concepts.

Answer: Watching diverse animal species in their natural habitats, European zoologists Konrad Lorenz and Niko Tinbergen developed the concept of imprinting to describe the early following behavior of certain baby birds, which ensures that the young will stay close to the mother and be fed and protected from danger. Imprinting takes place during an early, restricted time period of development. If the mother is absent during this time but an object resembling her in important features is present, young birds may imprint on it instead.

The term **critical period** refers to a limited time span during which the child is biologically prepared to acquire certain adaptive behaviors but needs the support of an appropriately stimulating environment. A **sensitive period** refers to a time that is biologically optimal for certain capacities to emerge because the individual is especially responsive to environmental influences. The idea of a sensitive period offers a better account of human development than does the strict notion of a critical period. However, its boundaries are less well-defined than are those of a critical period. Development may occur later, but it is harder to induce. *Page Ref: 23–24*

146) Describe the similarities and differences between Jean Piaget’s cognitive-developmental theory and Lev Vygotsky’s sociocultural theory.

Answer: Piaget did not regard direct teaching by adults as important for cognitive development. Instead, he emphasized children’s active, independent efforts to make sense of their world. Vygotsky agreed with Piaget that children are active, constructive beings. But whereas Piaget emphasized children’s independent efforts to make sense of their world, Vygotsky viewed cognitive development as a socially mediated process, in which children depend on assistance.
from adults and more expert peers as they tackle new challenges. Both Vygotsky and Piaget believed that children undergo certain stagewise changes. But Vygotsky did not regard all children as moving through a universal sequence of stages of cognitive development as Piaget did. Vygotsky believed that as soon as children acquire language, their enhanced ability to communicate with others leads to continuous changes in thought and behavior that can vary greatly from culture to culture. Unlike Piaget, Vygotsky also emphasized that children in every culture develop unique strengths that are not present in other cultures because different cultures select and value different tasks for children’s learning.  

Page Ref: 19–21, 24–25

147) Discuss ecological systems theory, and describe each level of the environment.

Answer: Ecological systems theory views the child as developing within a complex system of relationships affected by multiple levels of the surrounding environment. Since the child’s biologically influenced dispositions join with environmental forces to mold development, Urie Bronfenbrenner characterized his perspective as a bioecological model. He envisioned the environment as a series of interrelated, nested structures that form a complex functioning whole, or system. The microsystem concerns relations between the child and the immediate environment; the mesosystem includes connections among immediate settings; the exosystem includes social settings that affect but do not contain the child; and the macrosystem consists of the values, laws, customs, and resources of the culture that affect activities and interactions at all inner layers. The chronosystem is not a specific context. Instead, it refers to the dynamic, ever-changing nature of child development.  

Page Ref: 25–27

148) Two types of systematic observation used in child development research are naturalistic and structured observation. Explain the benefits and limitations of each.

Answer: Naturalistic observation involves viewing behavior in natural contexts. The great strength of naturalistic observation is that investigators can see directly the everyday behaviors they hope to explain. One limitation of this research method is that not all children have the same opportunity to display a particular behavior in everyday life. Researchers commonly deal with this difficulty by making structured observations in a laboratory, where conditions are the same for all participants. In this approach, the investigator sets up a situation that evokes the behavior of interest so that every participant has equal opportunity to display the behavior of interest. The major benefit of this method is that it permits greater control over the research situation than does naturalistic observation. In addition, structured observation is especially useful for studying behaviors that investigators rarely have an opportunity to see in everyday life. A limitation of structured observation is that participants may not behave in the laboratory as they typically behave in their natural environment.  

Page Ref: 31–33

149) Summarize research on the academic achievement and adjustment of immigrant youths in the United States.

Answer: Research reveals that many children of immigrant parents from diverse countries adapt amazingly well. Students who are first generation or second generation often achieve in school as well as or better than students of native-born parents, graduating from high school at similar or greater overall rates. Findings on psychological adjustment are similar. Compared with their agemates, adolescents from immigrant families are less likely to commit delinquent and violent acts, to use drugs and alcohol, or to have early sex. They are also less likely to be obese or to have missed school because of illness. They also tend to report just as favorable, and at times higher, self-esteem as do young people with native-born parents.  

Page Ref: 36

150) Explain why inferences about cause and effect can be made in experiments but not in correlational studies.

Answer: Correlational studies do not permit inferences about cause-and-effect relationships; they simply permit study of the strength and direction of an association between variables. For example, a positive correlation indicates that as one variable increases, the other also increases. A negative correlation indicates that as one variable increases, the other decreases. In experimental design, inferences about cause-and-effect relationships are possible because the researcher uses an evenhanded procedure to assign people to two or more treatment conditions. Cause-and-effect relationships can be detected because the researcher directly controls or manipulates changes in the independent variable by exposing participants to treatment conditions. Random assignment of participants to treatment conditions increases the chances that the characteristics of participants will be equally distributed across treatment groups. Random assignment also increases the likelihood that any differences in the dependent variable will be due to the manipulation of the independent variable rather than systematic differences in composition of the treatment groups.  

Page Ref: 37–39

151) Describe some problems investigators face in conducting longitudinal research.

Answer: Despite its strengths, longitudinal research poses a number of problems. First, investigators sometimes fail to enlist participants who adequately represent the population of interest, making a biased sample. People who willingly participate in long-term research are likely to have distinctive characteristics, such as a special appreciation for the scientific value of research. Furthermore, longitudinal samples generally become more biased with time because of
selective attrition. Participants may move away or drop out of the study, and the ones who remain are likely to differ in important ways from the ones who leave. Also, from repeated study, participants may become —test-wise. Their performance may improve as a result of practice effects—better test-taking skills and increased familiarity with the test—not because of factors commonly associated with development. Finally, the most widely discussed threat to the accuracy of longitudinal findings is cultural–historical change, commonly called cohort effects. Longitudinal studies examine the development of cohorts—children born at the same time, who are influenced by particular cultural and historical conditions. Results based on one cohort may not apply to children developing at other times. Page Ref: 40–41

152) Why are ethical concerns heightened when children take part in research? How is informed consent used with children? Answer: Sometimes the quest for scientific knowledge can exploit people. When children take part in research, the ethical concerns are especially complex. Children are more vulnerable than adults to physical and psychological harm. Additionally, immaturity makes it hard or even impossible for children to evaluate for themselves what participation in research will mean. Thus, special ethical guidelines for research on children have been developed.

All research participants have the right to have all aspects of the research explained to them in language appropriate to their level of understanding. When children are participants, informed consent of parents as well as other adults (such as school officials) should be obtained, preferably in writing. As soon as children are old enough to do so, their own informed consent should be obtained in addition to parental consent. Extra care should be taken to ensure that children understand that they have the right to discontinue participation in the research at any time. Page Ref: 43, 45–46