

## CHAPTER 2

### RESEARCH STRATEGIES

#### MULTIPLE CHOICE

- 1) Before arriving in a kindergarten classroom, Dr. Banks prepared a questionnaire for interviewing children for her research. This is an example of a research
- A) design.
  - B) question.
  - C) method.
  - D) hypothesis.

Answer: C

Page Ref: 41

Skill: Apply

Objective: 2.1

- 2) A \_\_\_\_\_ is a prediction of behavior drawn directly from a \_\_\_\_\_.
- A) confirmation; fact
  - B) hypothesis; theory
  - C) theory; hypothesis
  - D) summary; study

Answer: B

Page Ref: 41

Skill: Remember

Objective: 2.1

- 3) When little or no theory exists on a topic of interest, investigators may start with a
- A) research question.
  - B) developmental inquiry.
  - C) research design.
  - D) research method.

Answer: A

Page Ref: 42

Skill: Understand

Objective: 2.1

- 4) Dr. Jenka wonders if the U.S. wars in Iraq and Afghanistan have heightened children's fears and anxieties. This is an example of a
- A) theory.
  - B) research method.
  - C) hypothesis.
  - D) research question.

Answer: D

Page Ref: 42

Skill: Apply

Objective: 2.1

- 5) A strength of \_\_\_\_\_ is that it reflects participants' everyday behavior.
- A) structured observation
  - B) naturalistic observation
  - C) the structured interview
  - D) the clinical interview

Answer: B

Page Ref: 43

Skill: Remember

Objective: 2.2

- 6) Dr. Shigoka is interested in determining which central nervous system structures contribute to personality development. Dr. Shigoka will likely use
- A) neurobiological methods.
  - B) event sampling.
  - C) the clinical, or case study, method.
  - D) ethnography.

Answer: A

Page Ref: 43

Skill: Apply

Objective: 2.2

- 7) Which of the following is a major limitation of neurobiological methods?
- A) Researchers cannot control the conditions under which participants are studied.
  - B) The accuracy of the results may be reduced by observer bias.
  - C) Many factors besides those of interest to the researcher can influence a physiological response.
  - D) It reveals with certainty the meaning of autonomic or brain activity.

Answer: C

Page Ref: 43

Skill: Understand

Objective: 2.2

- 8) Dr. Lector provides a full picture of a convicted criminal's psychological functioning by combining interviews, observations, test scores, and neurobiological assessments. Which of the following information-gathering methods is Dr. Lector likely using?
- A) naturalistic observation
  - B) longitudinal research design
  - C) the clinical, or case study, method
  - D) ethnography

Answer: C

Page Ref: 43

Skill: Apply

Objective: 2.2

- 9) In \_\_\_\_\_, findings cannot be applied to individuals other than the participant.
- A) structured observation
  - B) a clinical interview
  - C) the clinical, or case study, method
  - D) naturalistic observation

Answer: C

Page Ref: 43

Skill: Remember

Objective: 2.2

- 10) An investigator is interested in capturing a culture's unique values and social processes. \_\_\_\_\_ is best-suited for this type of study.
- A) The clinical interview
  - B) Naturalistic observation
  - C) Ethnography
  - D) The clinical, or case study, method

Answer: C

Page Ref: 43

Skill: Remember

Objective: 2.2

- 11) One major limitation of the ethnographic method is
- A) it does not reveal a depth of information.
  - B) findings cannot be applied to individuals and settings other than the ones studied.
  - C) participant responses are subject to inaccurate reporting.
  - D) it does not reveal the participants' behavior in everyday life.

Answer: B

Page Ref: 43

Skill: Understand

Objective: 2.2

- 12) Marilyn wants to know how preschool children react to aggressive peers. To study their behavior, Marilyn will probably use
- A) clinical interviews.
  - B) questionnaires.
  - C) the clinical, or case study, method.
  - D) naturalistic observation.

Answer: D

Page Ref: 43

Skill: Apply

Objective: 2.2

- 13) Which of the following is a major limitation of naturalistic observation?
- A) For each participant, responses may differ due to the manner of interviewing.
  - B) Researchers cannot expect that participants will behave in the laboratory as they do in their natural environments.
  - C) Findings cannot be generalized beyond the participants and settings in which the research was originally conducted.
  - D) Not all participants have the same opportunity to display a particular behavior in everyday life.

Answer: D

Page Ref: 43

Skill: Understand

Objective: 2.2

- 14) In \_\_\_\_\_, every participant has an equal opportunity to display the response of interest.
- A) structured observation
  - B) field experiments
  - C) clinical interviews
  - D) event sampling

Answer: A

Page Ref: 44

Skill: Remember

Objective: 2.2

- 15) \_\_\_\_\_ permits greater control over the research situation than does \_\_\_\_\_.
- A) Naturalistic observation; the clinical, or case study, method
  - B) Structured observation; naturalistic observation
  - C) Naturalistic observation; a structured interview
  - D) Naturalistic observation; a questionnaire

Answer: B

Page Ref: 44

Skill: Remember

Objective: 2.2

- 16) \_\_\_\_\_ is especially useful for studying behaviors that investigators rarely have an opportunity to see in everyday life.
- A) Structured observation
  - B) Naturalistic observation
  - C) The structured interview
  - D) The clinical, or case study, method

Answer: A

Page Ref: 44

Skill: Remember

Objective: 2.2

- 17) When researchers need information on only one or a few kinds of behavior, an efficient procedure is
- A) the clinical, or case study, method.
  - B) neurobiological sampling.
  - C) event sampling.
  - D) ethnography.

Answer: C

Page Ref: 44

Skill: Remember

Objective: 2.2

- 18) In event sampling, the observer records
- A) all instances of a particular behavior during a specified time period.
  - B) all behaviors that occur during a specified time period.
  - C) whether certain behaviors occur during a sample of short time intervals.
  - D) similar behavior patterns in participants who are the same age.

Answer: A

Page Ref: 44

Skill: Remember

Objective: 2.2

- 19) In time sampling, the observer records
- A) all instances of a particular behavior during a specified time period.
  - B) all behaviors that occur during a specified time period.
  - C) whether certain behaviors occur during a sample of short intervals.
  - D) similar behavior patterns in participants who are the same age.

Answer: C

Page Ref: 45

Skill: Remember

Objective: 2.2

- 20) Dr. Ramirez examined 100 brother–sister pairs for 10 minutes each, noting on a checklist the behaviors that occurred during 20 thirty-second intervals. This is an example of
- A) event sampling.
  - B) time sampling.
  - C) a naturalistic observation.
  - D) a genetic experiment.

Answer: B

Page Ref: 45

Skill: Apply

Objective: 2.2

- 21) A major problem with systematic observation is
- A) practice effects.
  - B) selective attrition.
  - C) biased sampling.
  - D) observer influence.

Answer: D

Page Ref: 45

Skill: Remember

Objective: 2.2

- 22) For children under age 7 or 8, observer influence is
- A) impossible to minimize.
  - B) usually present for the first 10 to 12 sessions.
  - C) generally limited to the first session or two.
  - D) rarely a concern.

Answer: C

Page Ref: 45

Skill: Remember

Objective: 2.2

- 23) To minimize observer influence, researchers can
- A) limit their observations to children over the age of 12.
  - B) tell participants what they are trying to study.
  - C) ask individuals who are part of the child's natural environment to do the observing.
  - D) tell participants that they must be serious and behave in a natural way.

Answer: C

Page Ref: 45

Skill: Understand

Objective: 2.2

- 24) Because Dr. Frederickson's students are aware of the purposes of a study, they may see and record what they expect to see rather than what the participants actually do. This is known as
- A) event influence.
  - B) observer bias.
  - C) a cohort effect.
  - D) internal validity.

Answer: B

Page Ref: 45

Skill: Apply

Objective: 2.2

- 25) \_\_\_\_\_ are best suited to collect systematic observations.
- A) Trained investigators
  - B) People who have little personal investment in the investigator's hypotheses
  - C) Parents and caregivers
  - D) People who know and understand the investigator's hypotheses

Answer: B

Page Ref: 45

Skill: Understand

Objective: 2.2

- 26) When studying children's thinking, Piaget used
- A) naturalistic observations.
  - B) event and time sampling procedures.
  - C) the clinical, or case study, method.
  - D) relatively unstructured clinical interviews.

Answer: D

Page Ref: 46

Skill: Remember

Objective: 2.2

- 27) A researcher interested in children's beliefs about God begins each interview with the same question, but subsequent questions are determined by the child's individual answers. This is an example of a
- A) clinical interview.
  - B) data questionnaire.
  - C) structured interview.
  - D) case study.

Answer: A

Page Ref: 46

Skill: Apply

Objective: 2.2

- 28) A major strength of the clinical interview is that it
- A) permits people to display their thoughts in terms that are as close as possible to the way they think in everyday life.
  - B) provides highly objective data that can be generalized to a larger population.
  - C) accurately assesses participants who have low verbal ability and expressiveness.
  - D) assures that each participant is asked the same set of questions.

Answer: A

Page Ref: 46

Skill: Understand

Objective: 2.2

- 29) Which of the following is a strength of the clinical interview?
- A) It is accurate with respect to the participants' thoughts and experiences.
  - B) It can provide a large amount of information in a fairly brief period.
  - C) It permits comparisons of participants' responses.
  - D) It is not subject to observer influence or observer bias.

Answer: B

Page Ref: 46

Skill: Understand

Objective: 2.2

- 30) Which of the following is a major limitation of the clinical interview?
- A) Participants may make up answers that do not represent their actual thinking.
  - B) It does not provide much insight into participants' reasoning or ideas.
  - C) The questions are phrased the same for each participant, regardless of their comprehension.
  - D) It overestimates participants' intellectual capacities.

Answer: A

Page Ref: 46

Skill: Understand

Objective: 2.2

- 31) Clinical interviews that focus on \_\_\_\_\_ are particularly vulnerable to distortion.
- A) current information and specific characteristics
  - B) past information and specific characteristics
  - C) past information and global judgments
  - D) current information and global judgments

Answer: C

Page Ref: 46

Skill: Remember

Objective: 2.2

- 32) A structured interview
- A) yields a greater depth of information than does a clinical interview.
  - B) is too flexible and, therefore, yields too wide a variety of responses.
  - C) is more time consuming to conduct than is a clinical interview.
  - D) eliminates the possibility that an interviewer might press and prompt some participants more than others.

Answer: D

Page Ref: 47

Skill: Understand

Objective: 2.2

- 33) A researcher is likely to choose a structured interview over a clinical interview when he or she
- A) is interested in more in-depth answers.
  - B) is concerned that observer influence might bias the findings.
  - C) plans to obtain written responses from an entire group of participants at the same time.
  - D) is interested in obtaining sensitive information about the participant.

Answer: C

Page Ref: 47

Skill: Understand

Objective: 2.2

- 34) Dr. Quinn uses neurobiological methods. She is interested in studying the relationship between \_\_\_\_\_ and \_\_\_\_\_.
- A) genes; the environment
  - B) developmental functions; individual differences
  - C) neurological maladies; biological processes
  - D) nervous system processes; behavior

Answer: D

Page Ref: 47

Skill: Apply

Objective: 2.2

35) Neurobiological methods

- A) are affected by inaccurate reporting.
- B) help researchers infer the perceptions, thoughts, and emotions of infants.
- C) do not show which nervous system structures contribute to individual differences.
- D) bring together a wide range of information on one child, including interviews, observations, and test scores.

Answer: B

Page Ref: 47

Skill: Understand

Objective: 2.2

36) The two most frequently used measures of brain functioning, \_\_\_\_\_ and \_\_\_\_\_, detect electric activity in the cerebral cortex.

- A) EEG; fMRI
- B) PET; ERPs
- C) EEG; ERPs
- D) fMRI; NIRS

Answer: C

Page Ref: 48

Skill: Remember

Objective: 2.2

37) In an electroencephalogram (EEG), researchers

- A) examine brain-wave patterns for stability and organization.
- B) detect the general location of brain-wave activity.
- C) take three-dimensional computerized pictures of the entire brain.
- D) beam infrared light at the brain.

Answer: A

Page Ref: 48

Skill: Remember

Objective: 2.2

38) Dr. Thompson uses an EEG to record the frequency and amplitude of brain waves in response to music in multiple areas of the cerebral cortex. Dr. Thompson is using

- A) functional magnetic resonance imaging (fMRI).
- B) positron emission tomography (PET).
- C) near-infrared spectroscopy (NIRS).
- D) event-related potentials (ERPs).

Answer: D

Page Ref: 48

Skill: Apply

Objective: 2.2

39) In a series of studies on infants of diabetic mothers, Charles Nelson and his collaborators used \_\_\_\_\_ to assess young infants' memory performance.

- A) NIRS
- B) ERPs
- C) PET
- D) fMRI

Answer: B

Page Ref: 49 Box: BIOLOGY AND ENVIRONMENT: Prenatal Iron Deficiency and Memory Impairments in Infants of Diabetic Mothers: Finding of ERP Research

Skill: Remember

Objective: 2.2



- 40) Which of the following is a finding of Charles Nelson's studies on infants of diabetic mothers?
- A) As a result of iron depletion in critical brain areas, a diabetic pregnancy places the fetus at risk for lasting memory deficits.
  - B) Early memory deficiencies found in infants of diabetic mothers are short-lived and do not last into the preschool years.
  - C) Infants of diabetic mothers responded to novel objects with a stronger temporal-lobe slow wave than did control babies.
  - D) Infants of diabetic mothers were more likely than control babies to recognize their mother's facial image.

Answer: A

Page Ref: 49 Box: *BIOLOGY AND ENVIRONMENT: Prenatal Iron Deficiency and Memory Impairments in Infants of Diabetic Mothers: Findings of ERP Research*

Skill: Understand

Objective: 2.2

- 41) Because \_\_\_\_\_ and \_\_\_\_\_ require that the participant lie as motionless as possible for an extended time, they are not suitable for infants and young children.
- A) EEG; PET
  - B) ERPs; fMRI
  - C) NIRS; PET
  - D) PET; fMRI

Answer: D

Page Ref: 50

Skill: Remember

Objective: 2.2

- 42) A neuroimaging technique that works well in infancy and early childhood is
- A) event-related potentials (ERPs).
  - B) near-infrared spectroscopy (NIRS).
  - C) functional magnetic resonance imaging (fMRI).
  - D) positron emission tomography (PET).

Answer: B

Page Ref: 50

Skill: Remember

Objective: 2.2

- 43) Which of the following research methods is an outgrowth of psychoanalytic theory?
- A) naturalistic observation
  - B) structured observation
  - C) ethnography
  - D) the clinical, or case study, method

Answer: D

Page Ref: 50

Skill: Understand

Objective: 2.2

- 44) Which of the following research methods would be the best suited for studying child prodigies?
- A) structured interviews
  - B) questionnaires
  - C) the clinical, or case study, method
  - D) ethnography

Answer: C

Page Ref: 51

Skill: Understand

Objective: 2.2

- 45) A strength of \_\_\_\_\_ is that it yields richly detailed case narratives that offer valuable insights into the many factors affecting development.
- A) the clinical, or case study, method
  - B) ethnography
  - C) naturalistic observation
  - D) structured observation

Answer: A

Page Ref: 51

Skill: Remember

Objective: 2.2

- 46) Which of the following is a limitation of the clinical, or case study, method?
- A) Investigators cannot assume that their conclusions apply, or generalize, to anyone other than the individual studied.
  - B) Information collected often lacks descriptive detail.
  - C) It does not provide evidence about the individual's current functioning.
  - D) It requires intensive study of participants' moment-by-moment behaviors.

Answer: A

Page Ref: 51

Skill: Understand

Objective: 2.2

- 47) Unlike the clinical, or case study, method, ethnographic research
- A) is easily biased by the researcher's beliefs.
  - B) is aimed at understanding a single individual.
  - C) is a descriptive technique.
  - D) relies on participant observation.

Answer: D

Page Ref: 52

Skill: Understand

Objective: 2.2

- 48) To study parental warmth in the Ethiopian culture, Dr. Jolie moves in with a family in an Ethiopian village. Which of the following information-gathering methods of research is Dr. Jolie using?
- A) ethnography
  - B) the clinical, or case study, method
  - C) neurobiological methods
  - D) structured observation

Answer: A

Page Ref: 52

Skill: Apply

Objective: 2.2

- 49) Nearly one-fourth of U.S. children
- A) were born in Latin America.
  - B) were born in Asia.
  - C) have foreign-born parents.
  - D) are illegal aliens.

Answer: C

Page Ref: 53 Box: CULTURAL INFLUENCES: Immigrant Youths: Adapting to a New Land

Skill: Remember

Objective: 2.2

- 50) In North America, students who are first-generation and second-generation
- A) are more likely than students of native-born parents to commit delinquent and violent acts.
  - B) are more likely than students of native-born parents to use drugs and alcohol.
  - C) generally have lower self-esteem than students of native-born parents.
  - D) often achieve in school as well as or better than students of native-born parents.

Answer: D

Page Ref: 53 Box: CULTURAL INFLUENCES: Immigrant Youths: Adapting to a New Land

Skill: Understand

Objective: 2.2

- 51) Ethnographies reveal that immigrant parents view \_\_\_\_\_ as the surest way to improve life chances.
- A) high socioeconomic status
  - B) education
  - C) speaking English in the home
  - D) severing ties with an ethnic community

Answer: B

Page Ref: 53 Box: CULTURAL INFLUENCES: Immigrant Youths: Adapting to a New Land

Skill: Remember

Objective: 2.2

- 52) Both \_\_\_\_\_ and \_\_\_\_\_ protect immigrant youths from delinquency, early pregnancy, drug use, and other risky behaviors.
- A) family relationships; school achievement
  - B) collectivist values; extracurricular involvement
  - C) acculturation; assimilation
  - D) individualistic values; opportunities for peer mentoring

Answer: A

Page Ref: 53 Box: CULTURAL INFLUENCES: Immigrant Youths: Adapting to a New Land

Skill: Remember

Objective: 2.2

- 53) Immigrant parents of successful youths typically
- A) do not share their children's views on the importance of education.
  - B) stress individual goals over allegiance to family and community.
  - C) develop close ties to an ethnic community.
  - D) allow their children to monitor themselves.

Answer: C

Page Ref: 53 Box: CULTURAL INFLUENCES: Immigrant Youths: Adapting to a New Land

Skill: Understand

Objective: 2.2

- 54) To be \_\_\_\_\_, observations and evaluations of people's actions cannot be unique to a single observer.
- A) internally valid
  - B) generalizeable
  - C) reliable
  - D) externally valid

Answer: C

Page Ref: 54

Skill: Remember

Objective: 2.3

- 55) An intelligence test has high reliability if
- A) it accurately predicts children's academic performance in school.
  - B) it yields similar results when given twice within a short period of time.
  - C) the content of the test is related to theoretical models of intelligence.
  - D) it is correlated with other established measures of intelligence.

Answer: B

Page Ref: 54

Skill: Understand

Objective: 2.3

- 56) Professor Nagini developed a measure to rate children's fears. To test inter-rater reliability, he
- A) compared the level of agreement between two different observers who used his measure simultaneously.
  - B) used people who were part of children's natural environment to do the rating.
  - C) compared the degree to which children from different cohorts scored similarly.
  - D) compared the extent to which his measure correlated with neurobiological measures of distress.

Answer: A

Page Ref: 54

Skill: Apply

Objective: 2.3

- 57) Dr. Sums developed a test of mathematical ability. To measure \_\_\_\_\_, he split the test in two and compared children's responses on both halves.
- A) inter-rater reliability
  - B) test-retest reliability
  - C) internal validity
  - D) external validity

Answer: B

Page Ref: 54

Skill: Apply

Objective: 2.3

- 58) Which of the following procedures can be used to determine the reliability of ethnographic and clinical studies?
- A) Responses to the same measures can be compared on separate occasions.
  - B) Researchers can measure the quantitative scores yielded by these two methods.
  - C) Answers on different halves of the same measure can be compared by judges.
  - D) Judges can see if they agree with the researcher that the patterns and themes identified are grounded in evidence and are plausible.

Answer: D

Page Ref: 54

Skill: Understand

Objective: 2.3

- 59) For research methods to have high validity,
- A) they must yield consistent results over time.
  - B) observations cannot be unique to a single observer.
  - C) they must accurately measure characteristics that the researchers set out to measure.
  - D) the participants' responses must be similar when the same measures are given on a different occasion.

Answer: C

Page Ref: 54

Skill: Remember

Objective: 2.3

- 60) Ms. Allan developed a test intended to measure eighth-grade children's knowledge of mathematics. Although children who took the new test twice received similar scores on both occasions, the test contained only multiplication problems. Ms. Allan's test has \_\_\_\_\_ reliability and \_\_\_\_\_ validity.

A) high; low  
 B) low; low  
 C) high; high  
 D) low; high

Answer: A

Page Ref: 54

Skill: Apply

Objective: 2.3

- 61) One way to assess the validity of a new measure of second-grade children's mathematical knowledge is to
- A) compare the children's answers on different halves of the same test.  
 B) test for inter-rater reliability.  
 C) compare the children's answers on different forms of the same measure.  
 D) compare the children's scores with how well they do on their math assignments in school.

Answer: D

Page Ref: 54–55

Skill: Apply

Objective: 2.3

- 62) If, during any phase of an investigation, participants' behavior is influenced by factors unrelated to the hypothesis, then the \_\_\_\_\_ of the study is in doubt.

A) inter-rater reliability  
 B) test–retest reliability  
 C) internal validity  
 D) external validity

Answer: C

Page Ref: 55

Skill: Remember

Objective: 2.3

- 63) Ensuring that samples, tasks, and contexts for conducting research represent the real-world people and situations that the investigator aims to understand is key to
- A) inter-rater reliability.  
 B) test–retest reliability.  
 C) internal validity.  
 D) external validity.

Answer: D

Page Ref: 55

Skill: Remember

Objective: 2.3

- 64) The two main designs used in all research on human behavior are \_\_\_\_\_ and \_\_\_\_\_.

A) correlational; coefficient  
 B) correlational; experimental  
 C) dependent; independent  
 D) laboratory; field experiments

Answer: B

Page Ref: 55

Skill: Remember

Objective: 2.4

- 65) In a correlational design, researchers
- A) gather information on individuals, generally in natural life circumstances, and make no effort to alter their experiences.
  - B) use an evenhanded procedure to assign people to two or more treatment conditions.
  - C) can infer cause and effect.
  - D) manipulate changes in the independent variable.

Answer: A

Page Ref: 55

Skill: Understand

Objective: 2.4

- 66) A major limitation of correlational studies is that
- A) researchers cannot study how conditions of interest currently exist.
  - B) researchers cannot infer cause and effect.
  - C) there is no way to measure the strength of a positive relationship between variables.
  - D) negative relationships between variables cannot be measured.

Answer: B

Page Ref: 55

Skill: Understand

Objective: 2.4

- 67) A correlational coefficient can range in value from \_\_\_\_\_ to \_\_\_\_\_.
- A) -100; +100
  - B) -1.00; 0
  - C) 0; +1.00
  - D) -1.00; +1.00

Answer: D

Page Ref: 56

Skill: Remember

Objective: 2.4

- 68) A zero correlation coefficient indicates \_\_\_\_\_ relationship.
- A) a strong positive
  - B) a strong negative
  - C) a weak positive or negative
  - D) no

Answer: D

Page Ref: 56

Skill: Remember

Objective: 2.4

- 69) Which of the following statements is true about correlation coefficients?
- A) The sign of the number refers to the strength of the relationship.
  - B) A negative correlation coefficient means that the two variables are not related to each other.
  - C) A positive correlation coefficient implies that as one variable increases, the other also increases.
  - D) The magnitude of the number shows the direction of the relationship.

Answer: C

Page Ref: 56

Skill: Understand

Objective: 2.4

- 70) Dr. Bayor found a correlation of  $-.89$  between music lessons and levels of adolescent delinquency. This correlation is \_\_\_\_\_ and \_\_\_\_\_.

- A) moderate; positive
- B) low; negative
- C) high; negative
- D) high; positive

Answer: C

Page Ref: 56

Skill: Apply

Objective: 2.4

- 71) Which of the following research methods permits inferences about cause-and-effect relationships?

- A) structured interview
- B) naturalistic observation
- C) experimental design
- D) correlational study

Answer: C

Page Ref: 56

Skill: Remember

Objective: 2.4

- 72) The \_\_\_\_\_ variable is the one the investigator expects to cause changes in another variable.

- A) practice
- B) independent
- C) dependent
- D) confounding

Answer: B

Page Ref: 56

Skill: Remember

Objective: 2.4

- 73) The dependent variable is the one the investigator expects to

- A) be influenced by the independent variable.
- B) influence the independent variable.
- C) cause changes in another variable.
- D) remain stable throughout the experiment.

Answer: A

Page Ref: 56

Skill: Remember

Objective: 2.4

- 74) Dr. Blume is interested in methods for lowering blood pressure. He recruits 120 adults with high blood pressure and assigns them to one of three treatment groups—one group will take a daily pill, one group will be placed on a special diet, and one group will participate in an exercise boot camp. The independent variable is \_\_\_\_\_ and the dependent variable is \_\_\_\_\_.

- A) the participants with high blood pressure; blood pressure
- B) treatment type; blood pressure
- C) blood pressure; treatment type
- D) the daily pill; the participants with high blood pressure

Answer: B

Page Ref: 56

Skill: Apply

Objective: 2.4

- 75) Dr. Story found that the children in two-parent homes had higher reading-test scores than those in one-parent homes. However, the children from two-parent homes had more siblings than those in one-parent homes. What is the confounding variable?

- A) number of siblings
- B) reading test scores
- C) type of reading test used
- D) type of home

Answer: A

Page Ref: 57

Skill: Apply

Objective: 2.4

- 76) A researcher who flips a coin to determine in which treatment group participants will be assigned is using

- A) a confounding variable.
- B) matching.
- C) a natural, or quasi-, experiment.
- D) random assignment.

Answer: D

Page Ref: 57–58

Skill: Apply

Objective: 2.4

- 77) Dr. Perry can increase the chances that participants' characteristics will be equally distributed across the treatment groups by

- A) carefully assigning the participants to the treatment groups according to their medical histories.
- B) adding confounding variables to the experiment.
- C) randomly assigning the participants to the treatment groups.
- D) manipulating the dependent variable when exposing the participants to treatment conditions.

Answer: C

Page Ref: 57–58

Skill: Apply

Objective: 2.4

- 78) Professor Atari is designing a study to determine if playing video games that require mental rotation of visual images fosters success on spatial reasoning tests. What is the best method of inferring cause and effect?

- A) Choose a group of children who scored low on spatial reasoning tests and a group who scored high and compare the number of video game play hours for each group.
- B) Calculate a correlation between spatial reasoning test scores and the number of video game play hours by one group of children.
- C) Select a group of children who play a lot of video games and a second group who have never played video games and compare their scores on spatial reasoning tests.
- D) Randomly choose half of the children to play video games and half to play no video games and compare spatial reasoning measures for each group.

Answer: D

Page Ref: 56–58

Skill: Apply

Objective: 2.4



- 79) Dr. Clinton measures children's intelligence ahead of time and then assigns an equal number of high- and low-scoring children to each treatment condition. Dr. Clinton is using
- A) a confounding variable.
  - B) matching.
  - C) a natural, or quasi-, experiment.
  - D) random assignment.

Answer: B

Page Ref: 58

Skill: Apply

Objective: 2.4

- 80) Sometimes researchers combine \_\_\_\_\_ with \_\_\_\_\_ to deliberately make characteristics equivalent that are likely to distort the results.
- A) confounding variables; random assignment
  - B) systematic assignment; matching
  - C) matching; confounding variables
  - D) random assignment; matching

Answer: D

Page Ref: 58

Skill: Remember

Objective: 2.4

- 81) Findings obtained in laboratories often have limited
- A) inter-rater reliability.
  - B) test-retest reliability.
  - C) external validity.
  - D) internal validity.

Answer: C

Page Ref: 58

Skill: Remember

Objective: 2.4

- 82) In field experiments, researchers
- A) make no effort to alter participants' experiences.
  - B) use treatment conditions that already exist naturally.
  - C) avoid confounding variables by exposing the same participants to all treatments.
  - D) randomly assign participants to treatment conditions in natural settings.

Answer: D

Page Ref: 58

Skill: Remember

Objective: 2.4

- 83) Often researchers cannot randomly assign participants and manipulate conditions in the real world, so they compromise by conducting \_\_\_\_\_ experiments.
- A) field
  - B) laboratory
  - C) natural, or quasi-,
  - D) correlational

Answer: C

Page Ref: 58

Skill: Remember

Objective: 2.4

- 84) \_\_\_\_\_ studies differ from correlational research only in that groups of participants are carefully chosen to ensure that their characteristics are as much alike as possible.

- A) Field experiment
- B) Natural, or quasi-, experiment
- C) Laboratory experiment
- D) Observational

Answer: B

Page Ref: 58

Skill: Remember

Objective: 2.4

- 85) Dr. MacKenzie wants to study the impact of child maltreatment on physical development. The best experimental method for this research would be a \_\_\_\_\_ experiment.

- A) field
- B) natural, or quasi-,
- C) laboratory
- D) correlational

Answer: B

Page Ref: 58

Skill: Apply

Objective: 2.4

- 86) Researchers reported that college students who listened to a Mozart sonata for a few minutes just before taking a test of spatial reasoning abilities did better on the test than students who took the test after listening to relaxation instructions or sitting in silence. The gain in performance, widely publicized as the “Mozart effect,”

- A) was easy to replicate.
- B) was small and short-lived.
- C) involved a real change in ability.
- D) was long-lasting.

Answer: B

Page Ref: 59 Box: SOCIAL ISSUES: EDUCATION: Can Musical Experiences Enhance Intelligence?

Skill: Remember

Objective: 2.4

- 87) Research suggests that to produce lasting gains in mental-test scores using music, interventions must

- A) begin in infancy.
- B) begin before birth.
- C) be long-lasting and involve children’s active participation.
- D) occur during REM sleep.

Answer: C

Page Ref: 59 Box: SOCIAL ISSUES: EDUCATION: Can Musical Experiences Enhance Intelligence?

Skill: Remember

Objective: 2.4

- 88) A field experiment comparing 36 weeks of piano and voice lessons with drama lessons and a no-lessons control showed that

- A) sustained musical experiences can lead to small increases in intelligence that do not arise from comparable drama lessons.
- B) sustained musical experiences can boost performance on spatial but not verbal abilities.
- C) piano, but not voice, lessons can lead to gains in intelligence-test performance.
- D) drama lessons can boost intelligence-test performance above and beyond the effects of music lessons.

Answer: A

Page Ref: 59 Box: SOCIAL ISSUES: EDUCATION: Can Musical Experiences Enhance Intelligence?

Skill: Understand

Objective: 2.4

- 89) In a longitudinal design,
- A) groups of people differing in age are studied at the same point in time.
  - B) participants are studied repeatedly at different ages, and changes are noted as they get older.
  - C) participants are presented with a novel task and researchers follow their mastery over a series of closely spaced sessions.
  - D) the investigator conducts several sequences and makes cross-sectional comparisons.

Answer: B

Page Ref: 60

Skill: Remember

Objective: 2.5

- 90) In a \_\_\_\_\_ design, researchers can identify common patterns as well as individual differences in development because it tracks the performance of each person over time.
- A) cross-sectional
  - B) microgenetic
  - C) longitudinal
  - D) sequential

Answer: C

Page Ref: 60

Skill: Remember

Objective: 2.5

- 91) Which of the following is a strength of the longitudinal design?
- A) It permits investigators to examine relationships between early and later events and behaviors.
  - B) It avoids problems of selective attrition, practice effects, and theoretical and methodological changes in the field.
  - C) It offers insight into how change occurs.
  - D) It permits cross-sectional comparisons and reveals cohort effects.

Answer: A

Page Ref: 60

Skill: Understand

Objective: 2.5

- 92) Control over the treatment is generally weaker in a \_\_\_\_\_ experiment than in a \_\_\_\_\_ experiment.
- A) field; natural, or quasi-,
  - B) laboratory; field
  - C) field; laboratory
  - D) laboratory; natural, or quasi-,

Answer: C

Page Ref: 61

Skill: Remember

Objective: 2.5

- 93) A major strength of the natural, or quasi-, experiment is that it permits
- A) study of relationships between variables.
  - B) inferences about cause-and-effect relationships.
  - C) generalization of experimental findings to the real world.
  - D) study of many real-world conditions that cannot be experimentally manipulated.

Answer: D

Page Ref: 61

Skill: Understand

Objective: 2.5

- 94) In Dr. Jeffers' study, he discovered that many of the participants had a special appreciation for the scientific value of research. Dr. Jeffers should be concerned with
- A) practice effects.
  - B) selective attrition.
  - C) cohort effects.
  - D) biased sampling.

Answer: D

Page Ref: 61

Skill: Apply

Objective: 2.5

- 95) \_\_\_\_\_ samples generally become more biased as the investigation proceeds because of \_\_\_\_\_.
- A) Cross-sectional; practice effects
  - B) Microgenetic; cohort effects
  - C) Longitudinal; selective attrition
  - D) Cross-sectional; cohort effects

Answer: C

Page Ref: 62

Skill: Remember

Objective: 2.5

- 96) When participants in her longitudinal study on the effects of child care moved away or dropped out, Dr. Swan was probably concerned about
- A) biased sampling.
  - B) selective attrition.
  - C) practice effects.
  - D) cohort effects.

Answer: B

Page Ref: 62

Skill: Apply

Objective: 2.5

- 97) Over time, John, a participant in a longitudinal study, became aware of his own thoughts, feelings, and actions, and consciously revised them when the investigator was present. This is an example of
- A) cohort effects.
  - B) practice effects.
  - C) selective attrition.
  - D) biased sampling.

Answer: B

Page Ref: 62

Skill: Apply

Objective: 2.5

- 98) Maggie, a participant in a longitudinal study, became "test-wise" over time. Her performance on the test improved with increased familiarity with the measure. This is an example of
- A) biased sampling.
  - B) selective attrition.
  - C) practice effects.
  - D) cohort effects.

Answer: C

Page Ref: 62

Skill: Apply

Objective: 2.5

99) The most widely discussed threat to the validity of longitudinal findings is

- A) biased sampling.
- B) selective attrition.
- C) practice effects.
- D) cohort effects.

Answer: D

Page Ref: 62

Skill: Remember

Objective: 2.5

100) Which of the following statements is true about cohort effects?

- A) They cannot occur when specific experiences influence some children but not others in the same generation.
- B) They do not just operate broadly on an entire generation.
- C) They occur when participants move away or drop out of studies.
- D) They occur because of factors commonly associated with development.

Answer: B

Page Ref: 62

Skill: Understand

Objective: 2.5

101) Many recent longitudinal studies span only a few months or years to avoid problems associated with

- A) cohort effects.
- B) practice effects.
- C) theories and methods becoming outdated.
- D) biased sampling.

Answer: C

Page Ref: 62

Skill: Remember

Objective: 2.5

102) In the cross-sectional design,

- A) groups of people differing in age are studied at the same point in time.
- B) participants are studied repeatedly at different ages, and changes are noted as they get older.
- C) participants are presented with a novel task, and researchers follow their mastery over a series of closely spaced sessions.
- D) the investigator conducts several sequences and makes cross-sectional comparisons.

Answer: A

Page Ref: 62

Skill: Remember

Objective: 2.5

103) The cross-sectional design is

- A) rarely used in developmental research because data collection often takes years to complete.
- B) often affected by selective attrition, practice effects, and changes in the field.
- C) an efficient strategy for describing age-related trends.
- D) an efficient strategy for studying individual differences in development.

Answer: C

Page Ref: 63

Skill: Remember

Objective: 2.5

104) Which of the following statements is true about the cross-sectional design?

- A) Researchers are not concerned with cohort effects.
- B) Researchers are not concerned with selective attrition.
- C) It is rarely used because it is so time-consuming.
- D) Researchers are concerned with both practice and cohort effects.

Answer: B

Page Ref: 63

Skill: Understand

Objective: 2.5

105) Despite its convenience, cross-sectional research

- A) does not provide evidence about individual development.
- B) cannot provide information about age-related trends.
- C) is limited by selective attrition.
- D) is threatened by practice effects.

Answer: A

Page Ref: 63

Skill: Understand

Objective: 2.5

106) Like longitudinal research, cross-sectional studies

- A) can be threatened by cohort effects.
- B) often rely on biased observation procedures.
- C) can be threatened by selective attrition.
- D) can be threatened by practice effects.

Answer: A

Page Ref: 63

Skill: Understand

Objective: 2.5

107) In a sequential design,

- A) participants are presented with a novel task, and researchers follow their mastery over a series of closely spaced sessions.
- B) groups of people differing in age are studied at the same point in time.
- C) researchers conduct several cross-sectional or longitudinal investigations.
- D) participants are studied repeatedly at different ages, and changes are noted as they get older.

Answer: C

Page Ref: 63

Skill: Remember

Objective: 2.5

108) To examine age-related changes in memory strategy use, Professor Mnemonic presented 5-, 6-, and 7-year-olds various memory tasks several times over a 3-year period. This is an example of a \_\_\_\_\_ study.

- A) longitudinal
- B) cross-sectional
- C) microgenetic
- D) sequential

Answer: D

Page Ref: 63

Skill: Apply

Objective: 2.5

- 109) A sequential design
- A) does not allow inferences about individual differences.
  - B) permits researchers to find out whether cohort effects are operating.
  - C) is less efficient than a longitudinal design.
  - D) does not have any of the same limitations as a longitudinal or cross-sectional design.

Answer: B

Page Ref: 64

Skill: Remember

Objective: 2.5

- 110) In a microgenetic design,
- A) participants are presented with a novel task, and researchers follow their mastery over a series of closely spaced sessions.
  - B) groups of people differing in age are studied at the same point in time.
  - C) researchers conduct several cross-sectional or longitudinal investigations..
  - D) participants are studied repeatedly at different ages, and changes are noted as they get older.

Answer: A

Page Ref: 64

Skill: Remember

Objective: 2.5

- 111) A microgenetic design is especially useful for
- A) assessing emotional bonding among family members.
  - B) studying cognitive development.
  - C) measuring the impact of selective attrition and practice effects.
  - D) determining the cause of cohort effects.

Answer: B

Page Ref: 64

Skill: Understand

Objective: 2.5

- 112) Which of the following is a major limitation of microgenetic research?
- A) Selective attrition often distorts developmental trends.
  - B) Practice effects can distort microgenetic findings.
  - C) Microgenetic studies often create ethical issues.
  - D) Cohort effects often limit the generalizability of findings.

Answer: B

Page Ref: 65

Skill: Understand

Objective: 2.5

- 113) The \_\_\_\_\_ design offers insights into how change occurs.
- A) sequential
  - B) longitudinal
  - C) microgenetic
  - D) cross-sectional

Answer: C

Page Ref: 65

Skill: Remember

Objective: 2.5

- 114) An investigator interested in studying fears in preschool children had them reach into a covered box where she placed either a ball, a snake, a kitten, or a spider. Which of the following research rights was violated?
- A) protection from harm
  - B) informed consent
  - C) privacy
  - D) beneficial treatments

Answer: A

Page Ref: 66

Skill: Apply

Objective: 2.6

- 115) An investigator conducted a study in a second-grade classroom. She obtained permission from the teacher and the principal only. Which of the following research rights was violated?
- A) protection from harm
  - B) beneficial treatments
  - C) informed consent
  - D) privacy

Answer: C

Page Ref: 66

Skill: Apply

Objective: 2.6

- 116) An investigator interested in sexual practices among high school students asked them to post their answers on a Facebook group page. Which of the following research rights was violated?
- A) informed consent
  - B) protection from harm
  - C) beneficial treatments
  - D) privacy

Answer: D

Page Ref: 66

Skill: Apply

Objective: 2.6

- 117) \_\_\_\_\_ is used by review committees in colleges, universities, and other institutions to evaluate the ethics of research proposals.
- A) A protection-from-harm ratio
  - B) Reliability
  - C) A risks-versus-benefits ratio
  - D) Validity

Answer: C

Page Ref: 67

Skill: Remember

Objective: 2.6

- 118) If there are any risks to the safety and welfare of participants that the research does not justify, then preferences is always given to the
- A) investigator.
  - B) research committee.
  - C) research participants.
  - D) institutional review board.

Answer: C

Page Ref: 67

Skill: Remember

Objective: 2.6



- 119) The ethical principle of \_\_\_\_\_ requires special interpretation when participants cannot fully appreciate the research goals and activities.
- A) privacy
  - B) beneficial treatments
  - C) informed consent
  - D) knowledge of results

Answer: C

Page Ref: 67

Skill: Remember

Objective: 2.6

- 120) A researcher would like 9-year-old Simon to participate in a study. The researcher should obtain permission from
- A) Simon only.
  - B) Simon's parents only.
  - C) Simon and his parents.
  - D) neither Simon nor his parents.

Answer: C

Page Ref: 67

Skill: Apply

Objective: 2.6

- 121) Which of the following statements is true about age differences in children's research risks?
- A) Young children are more susceptible than older children to procedures that threaten the way they view themselves.
  - B) Adolescents may be better than younger children at sizing up and rejecting researchers' deceptive evaluations.
  - C) Receiving false negative feedback tends to be more stressful for very young children than for school-age children.
  - D) Children in middle childhood, but not adolescents or young children, feel external pressure to continue with a study.

Answer: B

Page Ref: 68 Box: SOCIAL ISSUES: HEALTH: Children's Research Risks: Developmental and Individual Differences

Skill: Understand

Objective: 2.6

- 122) A researcher would like 8-year-old Andie to participate in a study. Who should have the final word in deciding whether Andie participates?
- A) the researcher
  - B) Andie
  - C) Andie's parents
  - D) Andie's teacher

Answer: B

Page Ref: 68 Box: SOCIAL ISSUES: HEALTH: Children's Research Risks: Developmental and Individual Differences

Skill: Apply

Objective: 2.6

- 123) Some researchers have suggested that debriefing does not work well with children because it
- A) may undermine their belief in the honesty of adults.
  - B) often leads to observer influence and bias.
  - C) can bias the effects of an experimental manipulation.
  - D) is unethical to debrief children.

Answer: A

Page Ref: 69

Skill: Understand

Objective: 2.6

- 124) In studies involving children, many child development specialists believe that
- A) debriefing should not be used.
  - B) deception should not be used.
  - C) deception and debriefing should be used in the same manner they are used with adults.
  - D) deception should be used only if the risk of harm is minimal.

Answer: D

Page Ref: 69

Skill: Remember

Objective: 2.6

## ESSAY

- 125) Compare and contrast structured observation and structured interviews, noting the strengths and limitations of each.

Answer: In structured observation, an investigator sets up a laboratory situation that evokes the behavior of interest so that every participant has an equal opportunity to display the response. When using structured observation, the conditions are the same for all participants. The major strength 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 do in their natural environments. An additional limitation of structured observation is the risk of observer influence and bias.

In structured interviews, each participant is asked the same set of questions in the same way. This approach eliminates the possibility that an interviewer might press and prompt some participants more than others. Structured interviews are brief and efficient, and researchers can obtain written responses from an entire group at the same time. It permits comparisons of participants' responses and efficient data collection. Researchers can specify answer alternatives that participants might not think of in an open-ended interview. Its limitations are that it does not yield the same depth of information as a clinical interview, and it can be negatively affected by inaccurate reporting.

Page Ref: 43–45, 47

- 126) Describe the clinical, or case study, method, including its strengths and limitations.

Answer: An outgrowth of psychoanalytic theory, the clinical, or case study, method brings together a wide range of information on one child, including interviews, observations, test scores, and sometimes neurobiological measures. The aim is to obtain as complete a picture as possible of that child's psychological functioning and the experiences that led up to it. The clinical method is well suited to studying the development of certain types of individuals who are few in number but vary widely in characteristics. For example, the method has been used to find out what contributes to the accomplishments of prodigies—extremely gifted children who attain adult competence in a field before age 10. The clinical method yields richly detailed case narratives that offer valuable insights into the many factors affecting development. Nevertheless, like all other methods, it has drawbacks. Because information often is collected unsystematically and subjectively, researchers' theoretical preferences may bias their observations and interpretations. In addition, investigators cannot assume that their conclusions apply, or generalize, to anyone other than the child studied. Even when patterns emerge across several cases, it is wise to confirm them with other research strategies.

Page Ref: 50–51

- 127) Describe ethnography, noting its strengths and limitations.

Answer: Ethnography is a method borrowed from the field of anthropology. Like the clinical method, ethnographic research is a descriptive, qualitative technique. But instead of aiming to understand a single individual, it is directed at understanding a culture or a distinct social group through participant observation. Typically, the researcher spends months and sometimes years in the cultural community, participating in its daily life. By taking extensive field notes, the investigator tries to capture the culture's unique values and social processes. The strength of the ethnographic method is that entering into close contact with a social group allows researchers to understand the beliefs and behaviors of its members in a way that is not possible with an observational visit, interview, or questionnaire. There are two limitations of ethnographic research. First, the findings may be biased by investigators' cultural values and theoretical commitments, which sometimes lead them to observe selectively or misinterpret what they see. Second, the findings cannot be assumed to generalize beyond the people and settings in which the research was conducted.

Page Ref: 52

- 128) Discuss the concept of validity, and describe internal and external validity.

Answer: For research methods to have high validity, they must accurately measure characteristics that the researcher set out to measure. Methods that are implemented carelessly, unevenly, or inconsistently cannot possibly represent what an investigator originally intended to study. But to guarantee validity, researchers must go further. They often examine the content of observations and self-reports to make sure all behaviors of interest are included. Another approach is to see how effective a method is in predicting behavior we would reasonably expect it to predict. The concept of validity can also be applied more broadly: to the overall accuracy of research findings and conclusions.

In setting up an investigation, researchers must safeguard two types of validity. The first, *internal validity*, is the degree to which conditions internal to the design of the study permit an accurate test of the researcher's hypothesis or question. If, during any phase of the investigation—selecting participants, choosing research settings and tasks, and implementing procedures—participants' behavior is influenced by factors unrelated to the hypothesis, then the accuracy of the results is in doubt. Second, researchers must consider *external validity*, the degree to which their findings generalize to settings and participants outside the original study. Ensuring that samples, tasks, and contexts for conducting research represent the real-world people and situations that the investigator aims to understand is key to this type of accuracy.

Page Ref: 54–55

- 129) Describe laboratory, field, and natural, or quasi-, experiments. Explain the strengths and limitations of each.

Answer: In a laboratory experiment, the investigator manipulates an independent variable in controlled laboratory conditions and looks at its effect on the dependent variable. A laboratory experiment requires random assignment of participants to treatment conditions. The strength of the laboratory experiment is that it permits inferences about cause-and-effect relationships. The limitation of the laboratory experiment is that findings may not generalize to the real world. In a field experiment, the investigator randomly assigns participants to treatment conditions in natural settings. Its strength is that it permits generalization of experimental findings to the real world. A limitation of the field experiment is that control over the treatment is generally weaker than in a laboratory experiment. In a natural, or quasi-, experiment, the investigator compares already existing treatments in the real world, carefully selecting groups of participants to ensure that their characteristics are as much alike as possible. The strength of the natural experiment is that it permits many real-world conditions that cannot be experimentally manipulated. A limitation of the natural experiment is that findings may be due to variables other than the treatment.

Page Ref: 61

130) Describe the problems in conducting longitudinal research.

Answer: Longitudinal investigations pose a number of problems that can compromise both internal and external validity.

Difficulties include:

- *Biased sampling*: The failure to enlist participants who represent the population of interest is a common difficulty. People who willingly participate in research that requires them to be observed and tested over many years are likely to have distinctive characteristics, such as a special appreciation for the scientific value of research, or a unique need or desire for medical, mental health, or educational services provided by the investigators. As a result, researchers cannot easily generalize from them to the rest of the population.
- *Selective attrition*: Participants may move away or drop out for other reasons, and those who continue are likely to differ in important ways from those who drop out.
- *Practice effects*: With repeated testing, participants may become “test-wise.” Their performance may improve as a result of better test-taking skills and increased familiarity with the test, not because of factors commonly associated with development. The very experience of being repeatedly observed, interviewed, and tested can also interfere with a study’s validity. As children and adults are alerted to their own thoughts, feelings, and actions, they may consciously revise them in ways that have little to do with age-related change.
- *Cohort effects*: Longitudinal studies examine the development of cohorts—children developing in the same time period who are influenced by particular cultural and historical conditions. Results based on one cohort may not apply to children developing at other times. Cohort effects don’t just operate broadly on an entire generation. They also occur when specific experiences influence some children but not others in the same generation.
- *Outdated theory and methods*: Changes occurring within the field of child development may create problems for longitudinal research covering an extended time period. Theories and methods that first inspired a longitudinal study may become outdated.

Page Ref: 61–62

131) How does the ethical principle of informed consent operate in studies involving children?

Answer: The ethical principle of informed consent—people’s right to have all aspects of a study explained to them that might affect their willingness to participate—requires special interpretation when participants cannot fully appreciate the research goals and activities. Parental consent is meant to protect the safety of children whose ability to decide is not yet fully mature. In addition, researchers should obtain the agreement of other individuals who act on children’s behalf, such as institutional officials when research is conducted in schools, child-care centers, or hospitals. This is especially important when studies include special groups, such as abused children, whose parents may not always represent their best interests. Furthermore, as soon as children are old enough to appreciate the purpose of the research, and certainly by 7 years of age, their own informed consent should be obtained in addition to parental consent. Around age 7, changes in children’s thinking permit them to better understand basic scientific principles and the needs of others. Researchers should respect and enhance these new capacities by giving school-age children a full explanation of research activities in language they can understand. Careful attention to informed consent helps resolve dilemmas about revealing children’s responses to parents, teachers, or other authorities when those responses suggest that the child’s welfare is in danger. Children can be told in advance that if they report that someone is harming them, the researcher will tell an appropriate adult to take action to ensure the child’s safety.

Page Ref: 67, 69