

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) A sport psychologist is interested in the effects of an educational program on substance use behaviour during the academic year in athletes. To address this issue, the researcher collects data before and after the delivery of the intervention from five different universities (Two of which received the education program) that were not randomly assigned to conditions. What type of design has been employed in this study? 1) _____

A) Non-experimental
B) Quasi-experimental
C) Randomized experimental
D) None of the above

Answer: B

Explanation: A)
B)
C)
D)

- 2) What type of research design is likely being used when an exercise psychologist collects data at a single point in time based on a series of responses to a survey of student attitudes towards gym use at the university? 2) _____

A) Non-experimental
B) Internal validity
C) Randomized experimental
D) Quasi-experimental

Answer: A

Explanation: A)
B)
C)
D)

- 3) What does the principle of beneficence concern with respect to research ethics? 3) _____
- A) Disguising the identity of the researcher to enhance the credibility of the data
B) Protection of participants from public disclosure of their identity or data
C) Justifying the selection of participants based on who will benefit from the study
D) Identifying strata of the population to determine where the data can be obtained

Answer: C

Explanation: A)
B)
C)
D)

- 4) What are the common steps used in applying the scientific method to the study of sport and exercise phenomena? 4) _____
- A) Problem identification, hypothesis generation, data collection/analysis, conclusions
B) Multi-faceted questions, case-study research, qualitative inquiry
C) Ethnography, phenomenology, conductive research
D) All of the above

Answer: A

Explanation: A)
B)
C)
D)

5) A sport psychologist interested in elite sport interviews Ms. Clara Hughes about her experiences as the first Canadian athlete to win medals at both the summer and winter Olympics. What approach to science best describes this situation? 5) _____

- A) Nomothetic B) Idiographic C) Occam's Razor D) Causal

Answer: B

Explanation: A)
 B)
 C)
 D)

6) During one of your exercise physiology classes, the Teaching Assistant (TA) provides you with the following data: "Body Mass Index for Student A = 21.36 kg/m²". What would you say to the TA about this number given your understanding of the classical true score model of reliability? 6) _____

- A) Eureka...I always knew I was large but never knew I was larger than Gabriel!
B) Awesome...thanks for providing me with my actual BMI!
C) Sketchy...how much error of measurement is associated with that score?
D) None of the above!

Answer: C

Explanation: A)
 B)
 C)
 D)

7) A gynaecologist is interested in the influence of physical activity on quality of life in teenage mothers. What is the major hypothesis being 'tested' in this study? 7) _____

- A) Null hypothesis B) Independent hypothesis
C) Researcher hypothesis D) Case-study hypothesis

Answer: A

Explanation: A)
 B)
 C)
 D)

8) Which of the following statements accurately describes the hierarchical sequence of measurement levels starting with the least useful and finishing with the most useful? 8) _____

- A) Nominal, ordinal, interval, ratio B) Nominal, interval, ratio, ordinal
C) Nominal, ordinal, ratio, interval D) Nominal, ratio, ordinal, interval

Answer: A

Explanation: A)
 B)
 C)
 D)

9) In sport and exercise psychology studies where the researcher manipulates a variable (e.g., goal setting), what name do we give to that variable? 9) _____

- A) Dependant variable
- B) Extraneous variable
- C) Confound variable
- D) Independent variable

Answer: D

Explanation: A)
B)
C)
D)

10) An exercise psychologist is interested in the influence of acute exercise on mood responses. To address this issue, the researcher randomly assigns participants to an intervention group that completed a maximal exercise test and a comparison group that completed a submaximal exercise test and compares post-test mood differences across the groups. What type of research design is being used in this study? 10) _____

- A) True experimental
- B) Non-experimental
- C) Quasi-experimental
- D) None of the above

Answer: A

Explanation: A)
B)
C)
D)

11) Fred, a lively individual who has been physically active for the last 30 years, has decided to stop exercising based strictly on the advice of his family physician. What is the dominant source of knowledge Fred is relying on to make this decision? 11) _____

- A) Logic
- B) Intuition
- C) Tradition
- D) Authority

Answer: D

Explanation: A)
B)
C)
D)

12) Why is resentful demoralization a threat to the internal validity of sport and exercise psychology research that manipulates an independent variable? 12) _____

- A) Participants can vary in terms of biological factors across repeated data collection.
- B) An extraneous event can have a powerful yet unforeseen influence on the data.
- C) Alterations to the instruments can influence score reliability across time.
- D) Participant resentment can arise from not receiving the intervention.

Answer: D

Explanation: A)
B)
C)
D)

- 13) What is the central document that guides the conduct of sport and exercise psychology research within Canada? 13) _____
- A) Research Ethics Board
B) Tri-Council Policy Statement
C) Belmont Report
D) Declaration of Helsinki
- Answer: B
Explanation: A)
B)
C)
D)
- 14) Which of the following is not an internal validity threat associated with research design? 14) _____
- A) Diffusion of treatment
B) Error of measurement
C) Selection
D) Maturation
- Answer: B
Explanation: A)
B)
C)
D)
- 15) Which of the following is not a form of validity in sport or exercise psychology research? 15) _____
- A) Population validity
B) Consequential validity
C) Criterion validity
D) Content validity
- Answer: A
Explanation: A)
B)
C)
D)
- 16) A health researcher is interested in physical activity behaviour change over 6 months in people with Type-2 diabetes. To assess the variables of interest, the researcher administers a survey on two separate occasions. What type of research design is being used in this study? 16) _____
- A) Quasi-experimental
B) Non-experimental
C) Randomized experimental
D) None of the above
- Answer: B
Explanation: A)
B)
C)
D)
- 17) Which of the following statements "best" represents the concept of validity? 17) _____
- A) The degree to which the data are systematic, reducible, and replicable
B) The dependability of instruments to yield consistent scores
C) The degree of meaning associated with the test score inferences
D) The degree of measurement error associated with test scores
- Answer: C
Explanation: A)
B)
C)
D)

18) An exercise psychologist is interested in the type of messages portrayed in media advertising for fitness classes. To address the question, the researcher collects data from popular magazines advertising fitness classes to women. Assuming all the magazines are available in the library, does this form of research need ethical review? 18) _____

- A) Yes—because the research involves a library.
- B) No—because the research involves exercise which is good for you.
- C) Yes—because any and all research requires ethical review.
- D) No—because all the data are publically available.

Answer: D

Explanation: A)
B)
C)
D)

19) Which of the following represent the hypothesis that is commonly examined in sport and exercise psychology research? 19) _____

- A) Investigative hypothesis
- B) Independent hypothesis
- C) Null hypothesis
- D) None of the above

Answer: C

Explanation: A)
B)
C)
D)

20) What aspect of the research process concerns providing information to people to determine their interest in being participants in a sport or exercise psychology study? 20) _____

- A) The Belmont Report
- B) Informed consent
- C) Internal validity
- D) Research ethic

Answer: B

Explanation: A)
B)
C)
D)

21) Which of the following conditions are necessary for a research scientist working for the disease prevention division of Health Canada to say with confidence that a diet high in saturated fat (HSF) 'causes' cardiovascular disease (CVD)? 21) _____

- A) Establish that eating HSF diets precedes the onset CVD
- B) Rule out (or account for) all extraneous causes of CVD
- C) Establish a relationship between HSF diets and CVD
- D) All of the above

Answer: D

Explanation: A)
B)
C)
D)

- 22) Which of the following is a major difference between sport and exercise psychology research that uses either a qualitative or quantitative approach to scientific inquiry? 22) _____
- A) Quality of the research questions addressed within the study
 - B) Types of data collected and analyzed
 - C) Researcher credibility
 - D) Methodological rigour
- Answer: B
- Explanation: A)
B)
C)
D)
- 23) What is the difference between anonymity and confidentiality in the context of research ethics? 23) _____
- A) Confidentiality is concerned with protecting the participants' identity and data.
 - B) Anonymity is a requirement of providing informed consent.
 - C) Anonymity is concerned with disguising the researcher(s) identity at all times.
 - D) All of the above
- Answer: A
- Explanation: A)
B)
C)
D)
- 24) A sport psychologist is interested in the effects of mental imagery on attention control in goal tenders on a junior-level hockey team. What type of variable is the attention control serving as in this study? 24) _____
- A) Dependant variable
 - B) Extraneous variable
 - C) Confound variable
 - D) Independent variable
- Answer: B
- Explanation: A)
B)
C)
D)
- 25) An epidemiologist collects data on demographic variables (e.g., age, BMI, income) to predict involvement in physical activity over the next 6 months. What approach to validity is being used by this scientist? 25) _____
- A) Content validity
 - B) Nomological validity
 - C) Consequential validity
 - D) Criterion validity
- Answer: D
- Explanation: A)
B)
C)
D)

26) What are the hallmark characteristics of a phenomenological approach to science?

26) _____

- A) Numerical data, surveys, repeat assessments
- B) Restriction of range, skewness, kurtosis, and dispersion
- C) Content, criterion, consequential, and construct validity
- D) Naturalistic, descriptive, inductive, and meaning

Answer: D

Explanation: A)
B)
C)
D)

27) Dr. McFrankenburger is interested in the relationship between athlete's gender (coded as 1 = males; 2 = females) and speed (measured in seconds—starting from 0.00 seconds) for completing the 100 metre sprint race in major championships. What level(s) of measurement would be used in this study?

27) _____

- A) Two levels of measurement called ordinal and ratio
- B) Two levels of measurement called interval and ratio
- C) Trick question...only one level of measurement and that is ratio!
- D) Two levels of measurement called nominal and ratio

Answer: D

Explanation: A)
B)
C)
D)

28) Dr. Flinstone is interested in estimating the stability of muscle contractions across five consecutive days using a single test administration per day. What component of the measurement process is Dr. Flinstone estimating?

28) _____

- A) Construct validity
- B) Design
- C) Sampling
- D) Reliability

Answer: D

Explanation: A)
B)
C)
D)

29) An exercise psychologist is interested in measuring the level and type of motivation exhibited by exercise initiates who are starting a program of weight training for their new year's resolution. The major goal of collecting the data is to describe in detail the participant's motivational profile. What type of research do you think is being conducted in this study?

29) _____

- A) Phenomenological research
- B) Predictive research
- C) Descriptive research
- D) Theory testing research

Answer: C

Explanation: A)
B)
C)
D)

- 30) In a recent edition of *Men's Health*, you read the following statement: "All men with aerobic fitness scores greater than 60 ml/kg/min are considered long distance runners, Wayne Gretzky's aerobic fitness score is 75 ml/kg/min, therefore Gretzky is a long distance runner". What is source is knowledge is exemplified in this excerpt from *Men's Health*? 30) _____

A) Causal B) Intuition C) Logic D) Authority

Answer: C

Explanation: A)
B)
C)
D)

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 31) What is the major purpose behind the process of sampling within the scope of a sport or exercise psychology study? 31) _____

Answer: The central purpose of sampling is to provide the study with participants that represent a larger population of interest. In this way, the results of the study can be generalized back to the population of interest with confidence in their credibility.

Explanation:

- 32) Why is it important to differentiate between descriptive and predictive research in sport and exercise psychology? 32) _____

Answer: Different forms of research permit us to draw different conclusions from the data that have been collected. Descriptive research would permit us to provide an in-depth overview of how a concept appears in sport or exercise form the participant's point of view. On the other hand, predictive research allows the sport or exercise psychology researcher to make statement concerning how concepts or variables are linked together within a theory that aids understanding.

Explanation:

- 33) In what way does ethnography differ from grounded theory research that uses a qualitative approach? 33) _____

Answer: The focus of ethnography concerns understanding how a particular culture operates in a natural environment rather than building a theory to understand particular cultures. On the other hand, grounded theory research is chiefly concerned with using qualitative data to provide an omnibus framework or theory that explains phenomena rather than describing it in detail within a natural setting. In short, the goals of both approaches differ in terms of their focus with ethnography focused on describing cultural operations while grounded theory attempts to build a framework to understand phenomena.

Explanation:

- 34) An exercise psychologist is interested in using a quasi-experimental design to examine the effects of exercise on depression in young children with osteopenia. What threats to internal validity could be result from this study for the exercise psychologist when interpreting the data? What is the major reason why these threats to internal validity exist in this study? 34) _____

Answer: All of the following threats could be a potential problem: Maturation, history, selection, mortality, testing, instrumentation, regression to the mean, diffusion of treatment, and resentful demoralization. The most likely explanation why these threats exist is because the researcher is using a quasi- not a randomized-experimental design to test their ideas in this research.

Explanation:

- 35) A sport psychologist is interested in examining if athletes high in the trait of perfectionism perform better in Olympic Games than athletes with lower levels of this trait. The sport psychologist collects questionnaire data from each Canadian athlete competing in the 2010 Winter Olympic Games during a pre-Olympic Games press conference meeting then examines the association between all the responses and the athlete's performance in Vancouver. Does this research require ethical approval from a Research Ethics Board? Please explain your reasoning for this answer for the sport psychologist. 35) _____

Answer: Yes this research does require ethical review. It requires ethical review because it involves the collection of data from human participants which is not part of quality assurance or normal educational evaluation.

Explanation:

- 36) What is the major difference between reliability and validity in the process of conducting sport and exercise psychology research? 36) _____

Answer: Reliability concerns the accuracy of the data collected, or in other words, the degree to which the data are not unduly influenced by error of measurement. Validity is less concerned with the extent to which the data are confounded by measurement error. Construct validity is more concerned with the degree of confidence we can put in the interpretations we make from the data collected in a study of sport or exercise psychology.

Explanation:

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

- 37) Basic research is strength of the science because it seeks answer to complex questions of applied interest in sport and exercise psychology. 37) _____

Answer: True ☒ False

Explanation:

- 38) Authority is a source of knowledge in sport and exercise psychology concerned with reliance on an 'experts' point of view or interpretation of available information. 38) _____

Answer: ☒ True ☐ False

Explanation:

- 39) Research using biophysical specimens such as saliva or blood for example is usually exempt from ethical review by the Research Ethics Board. 39) _____

Answer: True ☒ False

Explanation:

- 40) A sample is smaller than a population. 40) _____
Answer: ☒ True ☐ False
Explanation:
- 41) Extraneous variables represent plausible alternative explanations for as study's findings that hold the potential to confound the knowledge base within a given area. 41) _____
Answer: ☒ True ☐ False
Explanation:
- 42) Justice is a principle of research ethics that is concerned mainly with the provision of informed consent. 42) _____
Answer: ☐ True ☒ False
Explanation:
- 43) A theory is a set of interrelated concepts or ideas that collectively inform 'why' a particular phenomenon occurred in sport or exercise settings. 43) _____
Answer: ☒ True ☐ False
Explanation:
- 44) The central factors distinguishing ratio levels of measurement from other levels of measurement concerns the ability to denote a true zero that represents a complete absence of the variable of interest. 44) _____
Answer: ☒ True ☐ False
Explanation:
- 45) Ethnographic research is a form of quantitative inquiry that focuses on portraying a 'bounded system' in as much detail as possible. 45) _____
Answer: ☐ True ☒ False
Explanation:
- 46) Logic as a source of knowledge relies only on the implicit understanding of a phenomena being investigated without the benefit of qualified or advanced training in the subject matter. 46) _____
Answer: ☐ True ☒ False
Explanation:

Answer Key

Testname: C2

- 1) B
- 2) A
- 3) C
- 4) A
- 5) B
- 6) C
- 7) A
- 8) A
- 9) D
- 10) A
- 11) D
- 12) D
- 13) B
- 14) B
- 15) A
- 16) B
- 17) C
- 18) D
- 19) C
- 20) B
- 21) D
- 22) B
- 23) A
- 24) B
- 25) D
- 26) D
- 27) D
- 28) D
- 29) C
- 30) C
- 31) The central purpose of sampling is to provide the study with participants that represent a larger population of interest. In this way, the results of the study can be generalized back to the population of interest with confidence in their credibility.
- 32) Different forms of research permit us to draw different conclusions from the data that have been collected. Descriptive research would permit us to provide an in-depth overview of how a concept appears in sport or exercise from the participant's point of view. On the other hand, predictive research allows the sport or exercise psychology researcher to make statement concerning how concepts or variables are linked together within a theory that aids understanding.
- 33) The focus of ethnography concerns understanding how a particular culture operates in a natural environment rather than building a theory to understand particular cultures. On the other hand, grounded theory research is chiefly concerned with using qualitative data to provide an omnibus framework or theory that explains phenomena rather than describing it in detail within a natural setting. In short, the goals of both approaches differ in terms of their focus with ethnography focused on describing cultural operations while grounded theory attempts to build a framework to understand phenomena.
- 34) All of the following threats could be a potential problem: Maturation, history, selection, mortality, testing, instrumentation, regression to the mean, diffusion of treatment, and resentful demoralization. The most likely explanation why these threats exist is because the researcher is using a quasi- not a randomized- experimental design to test their ideas in this research.
- 35) Yes this research does require ethical review. It requires ethical review because it involves the collection of data from human participants which is not part of quality assurance or normal educational evaluation.

Answer Key

Testname: C2

36) Reliability concerns the accuracy of the data collected, or in other words, the degree to which the data are not unduly influenced by error of measurement. Validity is less concerned with the extent to which the data are confounded by measurement error. Construct validity is more concerned with the degree of confidence we can put in the interpretations we make from the data collected in a study of sport or exercise psychology.

37) FALSE

38) TRUE

39) FALSE

40) TRUE

41) TRUE

42) FALSE

43) TRUE

44) TRUE

45) FALSE

46) FALSE