

Chapter: Chapter02: Methods and Statistics in I-O Psychology

Multiple Choice

1. “Disinterestedness” refers to the notion that
  - a. lay persons find scientific research hard to understand, and therefore are not interested in it.
  - b. people who belong to an organized religion find that science often contradicts many of the religion’s core beliefs.
  - c. scientists should be objective and not influenced by biases or prejudices.
  - d. employee motivation tends to decrease the longer people work for a particular company.

Ans: c

Section Ref: Module 2.1

2. The expectation that scientists will be objective and not influenced by biases or prejudices is called
  - a. hypothesize.
  - b. disinterestedness.
  - c. discrimination.
  - d. adverse impact.

Ans: b

Section Ref: Module 2.1

3. According to the text, research designs in I-O psychology can be broken down into three basic types:
  - a. block design, clinical interviews, archival research.
  - b. post hoc, a priori, experimental.
  - c. t-tests, f-tests, chi square.
  - d. experimental, quasi-experimental, non experimental.

Ans: d

Section Ref: Module 2.2

4. Dr. Baldwin is interested in studying the effects of a new medication. He randomly assigns participants to two groups. One group receives the medication while the other receives a placebo. Fernando’s research can be best described as a(n)
  - a. experimental design.
  - b. quasi-experimental design.
  - c. field study.
  - d. non-experimental design.

Ans: a

Section Ref: Module 2.2

5. Jake wants to establish a cause-effect relationship between two variables. He should use \_\_\_\_\_ to establish causation between the two variables.
- a regression analysis
  - a non-experimental design
  - an experimental design
  - a quasi-experimental design

Ans: c

Section Ref: Module 2.2

6. An important distinction between an experimental design and a quasi-experimental design is that
- unlike a quasi-experimental design, an experimental design randomly assigns participants to groups.
  - unlike a quasi-experimental design, an experimental design does not randomly assign participants to groups.
  - a quasi-experimental design focuses on past events, while an experimental design makes predictions about future events.
  - a quasi-experimental design focuses on future events while an experimental design makes predictions about future events.

Ans: a

Section Ref: Module 2.2

7. An independent variable is the term used to
- describe the variable that a researcher manipulates.
  - describe the variable a researcher measures.
  - describe the variable that is not accounted for.
  - describe a variable that cannot be quantitative.

Ans: a

Section Ref: Module 2.2

8. A research design that includes a manipulated independent variable, but does not have random assignment, is called a(n)
- experiment.
  - quasi-experiment.
  - non-experiment.
  - meta-analysis.

Ans: b

Section Ref: Module 2.2

9. Dr. Hendry is a psychologist conducting research on pay rates and employee satisfaction. She randomly assigns new employees to one of two different salaries, and she also keeps all other factors constant. The design that best describes her research is
- experimental.
  - quasi-experimental.
  - part experimental.
  - non-experimental.

Ans: a

Section Ref: Module 2.2

10. Rebecca is observing and recording how many times a group of workers engage in non-work related behavior over a period of a week. Rebecca is using a(n)
- experimental design.
  - observational design.
  - quasi-experimental design.
  - survey design.

Ans: b

Section Ref: Module 2.2

11. A research design in which a worker is asked to complete a questionnaire is a(n)
- survey design.
  - experimental design.
  - observational design.
  - correlational design.

Ans: a

Section Ref: Module 2.2

12. Observational design and survey design are two types of
- experiment.
  - quasi-experiment.
  - non-experiment.
  - meta-analysis.

Ans: c

Section Ref: Module 2.2

13. When workers are given questionnaires to assess their satisfaction with the current level of job satisfaction, the research design used is a(n)

- a. observational design.
- b. survey design.
- c. quasi-experiment.
- d. non-experiment.

Ans: b

Section Ref: Module 2.2

14. An observational design is a type of
- a. experimental design.
  - b. quasi-experimental design.
  - c. part experimental design.
  - d. non-experimental design.

Ans: d

Section Ref: Module 2.2

15. A study by Schaubroeck and Kuehn (1992) found that the majority of published studies by I-O psychologists were \_\_\_\_\_ and took place in \_\_\_\_\_ settings.
- a. non-experimental; laboratory
  - b. non-experimental; field
  - c. experimental; laboratory
  - d. experimental; field

Ans: b

Section Ref: Module 2.2

16. The use of “samples of convenience” typically leads to
- a. strong cause-effect relationships.
  - b. weak cause-effect relationships.
  - c. no cause-effect relationships.
  - d. absolute cause-effect relationships.

Ans: b

Section Ref: Module 2.2

17. In the early days of psychology, experimenters would record their own thoughts and experiences while completing an experimental task. This experimental method is called
- a. inversion.
  - b. quantitative method.
  - c. introspection.
  - d. triangulation.

Ans: c  
Section Ref: Module 2.2

18. When a researcher is trying to develop an understanding of a phenomenon, it is best to:
- make use of only quantitative data.
  - make use of only qualitative data.
  - make use of all the information available, regardless of form.
  - make use of research conducted only in the last 5 years.

Ans: c  
Section Ref: Module 2.2

19. An approach used by researchers seeking converging information from many different sources is referred to as
- introspection.
  - observational design.
  - triangulation.
  - statistical power.

Ans: c  
Section Ref: Module 2.2

20. The process used by I-O psychologists to develop an understanding of a job by identifying the duties of the job and the KSAOs required to perform the job is called a(n)
- job analysis.
  - job evaluation.
  - job incumbent.
  - job formulation.

Ans: a  
Section Ref: Module 2.2

21. Which sample would yield results with the most generalizability?
- a small non-representative sample
  - a large non-representative sample
  - a small representative sample
  - a large representative sample

Ans: d  
Section Ref: Module 2.2

22. To maximize the extent to which results of an experiment can be generalized to a larger population, the researcher should do all the following except
- sample people from many different organizations.
  - sample people with many different job titles.
  - sample people who work in different departments of an organization.
  - sample only one small group of people.

Ans: d

Section Ref: Module 2.2

23. Eliminating confounding variables in the laboratory setting is done via:
- sample control.
  - statistical control.
  - experimental control.
  - triangulation.

Ans: c

Section Ref: Module 2.2

24. As a convention, when visually describing a distribution of scores or numbers, researchers will set the frequency of the scores on the \_\_\_\_\_axis and the score or numbers associated with a particular criterion on the \_\_\_\_ axis.
- X(horizontal), Y(vertical)
  - Y(vertical), X(horizontal)
  - Y(horizontal), X(vertical)
  - X(vertical), Y(horizontal)

Ans: b

Section Ref: Module 2.3

25. The most frequently occurring score within a distribution is the
- mean.
  - mode.
  - median.
  - modality.

Ans: b

Section Ref: Module 2.3

26. The standard deviation refers to
- the typical amount of deviation from the mean.
  - the extent to which two groups differ on a given variable.
  - the most frequently occurring score in a distribution.
  - the extent to which an observed event can be due to chance.

Ans: a  
Section Ref: Module 2.3

27. The shape of a distribution with a large standard deviation would look
- wide because the distribution covers a large range of scores.
  - wide because the distribution covers a narrow range of scores.
  - tall and peaked to the left of the mean.
  - tall and peaked to the right of the mean.

Ans: a  
Section Ref: Module 2.3

28. A score that always falls at the 50th percentile in a distribution is called the
- skew.
  - mean.
  - mode.
  - median.

Ans: d  
Section Ref: Module 2.3

29. What is the mean of the following data set? 1, 2, 2, 7, 2, 4
- 2
  - 3
  - 4
  - 5

Ans: b  
Section Ref: Module 2.3

30. The standard deviation of a distribution is 4. Therefore, the variance of the distribution is
- 2.
  - 4.
  - 16.
  - 64.

Ans: c  
Section Ref: Module 2.3

31. The variance of a distribution is

- a. the squared standard deviation.
- b. the most frequently occurring score.
- c. the typical amount of deviation from a mean score.
- d. a negative number describing how much a score deviates from a mean score.

Ans: a

Section Ref: Module 2.3

32. Erin is testing her hypothesis that people who listen to music while on the job perform better than people who do not listen to music. The best way she can draw an inference about the relationship between music and performance would be to use
- a. measures of central tendency.
  - b. standard deviation.
  - c. inferential statistics.
  - d. factor analysis.

Ans: c

Section Ref: Module 2.3

33. T-test, analyses of variance, and chi-square tests are all examples of
- a. sample statistics.
  - b. experimental statistics.
  - c. descriptive statistics.
  - d. inferential statistics.

Ans: d

Section Ref: Module 2.3

34. To increase the statistical power of a test, researchers should
- a. increase the number of participants.
  - b. decrease the number of participants.
  - c. use only quantitative data to test their hypotheses.
  - d. calculate the mean and standard deviation to test their hypotheses.

Ans: a

Section Ref: Module 2.3

35. If the correlation between two variables is .90, this means that there is a
- a. strong association between the two variables.
  - b. weak association between the two variables.
  - c. strong causal relationship between the two variables.
  - d. weak causal relationship between the two variables.

Ans: a

Section Ref: Module 2.3

36. Dr. Duran, an I-O psychologist, found that as job satisfaction increases, employee absenteeism decreases. This is an example of a \_\_\_\_\_ relationship.
- a. positive
  - b. negative
  - c. non-linear
  - d. multiple correlation

Ans: b

Section Ref: Module 2.3

37. A recent study found that as people's commitment to their job increased, their absences from work decreased. Which correlation coefficient best represents this finding?
- a. -1.02
  - b. 0.26
  - c. -0.35
  - d. 0.05

Ans: c

Section Ref: Module 2.3

38. Sarah is attempting to draw a general conclusion about the influence of worker satisfaction on productivity by quantitatively combining the results from a number of studies. What statistical method would she use?
- a. meta-analysis
  - b. unified analysis
  - c. integration analysis
  - d. correlation analysis

Ans: a

Section Ref: Module 2.3

39. A statistical method for combining and analyzing the results from many different studies to draw a general conclusion about relationships between variables is known as
- a. factor analysis.
  - b. meta-analysis.
  - c. statistical artifacts.
  - d. analysis of variance.

Ans: b

Section Ref: Module 2.3

40. When research is focused on individual behavior, it is called:

- a. Meso-Research
- b. Micro-Research
- c. Meta- Research
- d. Macro-Research

Ans: b

Section Ref: Module 2.3

41. When research is focused on collective behavior, it is called:

- a. Meso-Research
- b. Micro-Research
- c. Meta- Research
- d. Macro-Research

Ans: d

Section Ref: Module 2.3

42. When studying constructs such as group or team cohesion, \_\_\_\_\_ research is being used.

- a. Meso-Research
- b. Micro-Research
- c. Meta- Research
- d. Macro-Research

Ans: d

Section Ref: Module 2.3

43. When research is focused on the interaction of the individual and collective behavior, it is called:

- a. Meso-Research
- b. Micro-Research
- c. Meta- Research
- d. Macro-Research

Ans: a

Section Ref: Module 2.3

44. Multi-level and cross-level analysis are terms most commonly associated with what type of research?

- a. Meso-Research
- b. Micro-Research
- c. Meta- Research
- d. Macro-Research

Ans: a

Section Ref: Module 2.3

45. If a researcher wants to examine whether a test is reliable over a reasonable time period, he or she might
- administer the test to the same people at two different points in time and calculate a correlation coefficient between the scores taken at time one and the scores taken at time two.
  - devise different forms of the test that measure the same general content and correlate the scores of each test with each other.
  - allow the test to be judged by several different individuals who all agree on what the test is designed to measure.
  - break the test into two sections and correlate the two sections with each other.

Ans: a

Section Ref: Module 2.4

46. A corporation administers a personality survey to employees. The exact same survey is given to the same employees the following week to assess:
- inferential reliability.
  - equivalent forms reliability.
  - test-retest reliability.
  - inter-rater reliability.

Ans: c

Section Ref: Module 2.4

47. A test that is chosen to assess the abilities necessary to carry out the demands of a specific job can be referred to as a:
- criterion.
  - prognostic.
  - diagnostic.
  - predictor.

Ans: d

Section Ref: Module 2.4

48. Dr. Groeneveld and Dr. Duran are investigating whether drivers are wearing their seatbelts. They stand on opposite street corners and tally how many drivers passing by are wearing their seatbelts. Which type of reliability does this approach assess when comparing their final tallies across a large number of drivers?
- inter-rater reliability
  - internal consistency reliability
  - equivalent forms reliability
  - test-retest reliability

Ans: a  
Section Ref: Module 2.4

49. The reliability of a test relates to its \_\_\_\_\_, whereas the validity of a test relates to its \_\_\_\_\_.
- a. accuracy; consistency
  - b. applicability; consistency
  - c. accuracy; generalizability
  - d. consistency; accuracy

Ans: d  
Section Ref: Module 2.4

50. If a measure is \_\_\_\_\_, we would get the same values each time we sampled the behavior. If a measure is \_\_\_\_\_, we are gathering either incomplete or inaccurate information.
- a. not valid; reliable
  - b. reliable; valid
  - c. reliable; not valid
  - d. valid; unreliable

Ans: c  
Section Ref: Module 2.4

51. In order for a test to be \_\_\_\_\_, it must also be \_\_\_\_\_.
- a. valid; reliable
  - b. reliable; valid
  - c. reliable; statistically significant
  - d. statistically significant; valid

Ans: a  
Section Ref: Module 2.4

52. Professor Merenich hypothesizes that a person's intelligence will determine how well the person will perform on the job. In this example, intelligence is the \_\_\_\_\_.
- a. criterion.
  - b. dependent variable.
  - c. predictor.
  - d. validity coefficient.

Ans: c  
Section Ref: Module 2.4

53. Two types of criterion-related validity are
- predictive and concurrent.
  - content-related and construct-related.
  - predictor and criterion.
  - test-retest and inter-rater.

Ans: a

Section Ref: Module 2.4

54. Which of the following characterizes a predictive validity design?
- There is a time lag between the collection of the test data and the criterion data.
  - There is no lag time between gathering the test scores and the performance data.
  - The test is administered to current employees rather than applicants.
  - The same test is administered to both current employees and applicants.

Ans: a

Section Ref: Module 2.4

55. Examining the correlation between new employee test scores and their job performance six months after they are hired provides a way to assess:
- content validity.
  - construct validity.
  - predictive validity.
  - concurrent validity.

Ans: c

Section Ref: Module 2.4

56. A concurrent design is a type of
- criterion-related validity.
  - content-related validity.
  - predictive validity.
  - construct validity.

Ans: a

Section Ref: Module 2.4

57. An HR manager is developing a test for hiring new employees. She plans to give current employees the new test and then correlate their scores with the performance records that are currently in their personnel files. Her method for collecting data can be best characterized as a(n)
- predictive design.
  - criterion design.
  - concurrent design.

- d. experimental design.

Ans: c

Section Ref: Module 2.4

58. Which of the following is true of content-related validation?
- a. There is a tight focus on a test score and a performance score.
  - b. There is a tight focus on a job analysis.
  - c. A broad net is cast in gathering evidence to support decisions or inferences.
  - d. It yields a validity coefficient.

Ans: b

Section Ref: Module 2.4

59. A psychological concept or characteristic (e.g., intelligence, personality, leadership) that a predictor is intended to measure is a
- a. construct.
  - b. criterion.
  - c. validity coefficient.
  - d. correlation coefficient.

Ans: a

Section Ref: Module 2.4