

- 1 If the correlation between two variables is 0.90, this indicates that there is a \_\_\_\_\_.  
(A) strong positive association between the variables  
(B) strong negative association between the variables  
(C) weak positive association between the variables  
(D) no relationship between the variables**

**Answer:** (A) strong positive association between the variables

- 2 Chang-qin developed a new measure designed to assess individuals' organizational identity. In a measure validation study, he finds that, as expected, the measure is not related to individuals' cognitive ability or emotional stability. This finding would illustrate which type of validity?  
(A) convergent  
(B) discriminant  
(C) face  
(D) content**

**Answer:** (B) discriminant

- 3 In 2015, Sanjay analyzed data from the 2010 U.S. Census in order to examine the relationship between education level and income. This source of data may best be labeled:  
(A) naturalistic  
(B) case study  
(C) archival  
(D) meta-analysis**

**Answer:** (C) archival

- 4 When researchers want to evaluate and integrate quantitative findings across many studies, they use a research method called \_\_\_\_\_.  
(A) field study  
(B) experimental design  
(C) meta-analysis  
(D) analysis of variance**

**Answer:** (C) meta-analysis

- 5 What is the difference between a field study and laboratory study?  
(A) A field study is conducted in heavily controlled artificial settings; a laboratory study is conducted in real organizations with real workers  
(B) A laboratory study is conducted in heavily controlled artificial settings; a field study is conducted in real organizations with real workers  
(C) A field study relies on inductive reasoning and introspection; a laboratory study relies on deductive reasoning and extrospection  
(D) A laboratory study relies on inductive reasoning and introspection; a field study relies on deductive reasoning and extrospection**

**Answer:** (B) A laboratory study is conducted in heavily controlled artificial settings; a field study is conducted in real organizations with real workers

- 6 Target is a large discount retail company in the U.S., and Google is a large technology company. When leaders at Target review a case study about an employee practice at Google, they \_\_\_\_\_.  
(A) should be cautious in assuming that they will get the same results because Google is in a different industry with unique circumstances that may not generalize to Target.  
(B) can assume that Google's practices apply to them because Google and Target are similar in terms of their size.  
(C) can assume that Google's practices will apply to them because Google and Target likely share the same customer base.  
(D) can learn a lot because Google and Target are both large, U.S.-based companies.**

**Answer:** (A) cautious in assuming that they will get the same results because Google is in a different industry with unique circumstances that may not generalize to Target.

**7 A key difference between an interval scale and a ratio scale is:**

- (A) an interval scale has equal intervals; a ratio scale does not
- (B) a ratio scale has equal intervals; an interval scale does not
- (C) an interval scale has a true zero point; a ratio scale does not
- (D) a ratio scale has a true zero point; an interval scale does not

**Answer:** (D) a ratio scale has a true zero point; an interval scale does not

**8 Carol gives two versions of the same test to a group of employees, and correlate the two tests with each other. Carol's process is a way to assess \_\_\_\_\_.**

- (A) test-retest reliability
- (B) criterion-related validity
- (C) parallel forms reliability
- (D) construct validity

**Answer:** (C) parallel forms reliability

**9 An I-O psychologist investigates the relationship between a test's font (bold font or regular font) and test performance. After randomly assigning 100 workers to two conditions, she finds that workers who take tests with bold font receive higher test scores than workers who take tests with regular font. The independent variable in this scenario is:**

- (A) test performance
- (B) test font
- (C) test score
- (D) random assignment

**Answer:** (B) test font

**10 Dr. Dostoyevsky, an I-O psychologist, found that as job satisfaction increases, employee absenteeism decreases significantly. This is an example of a \_\_\_\_\_ correlation.**

- (A) positive
- (B) negative
- (C) nonlinear
- (D) bimodal

**Answer:** (B) negative

**11 Noah is doing an experiment to see the effects of training on learning. One group of employee receives the training, while the other (control) group does not. He then gives the employees a job knowledge test. He wants to compare the mean job knowledge test score of the two groups. The best statistic to use for this would be \_\_\_\_\_.**

- (A) t-test
- (B) correlation
- (C) meta-analysis
- (D) linear regression

**Answer:** (A) t-test

**12 The reliability of a test relates to its \_\_\_\_\_, whereas the validity of a test relates to its \_\_\_\_\_.**

- (A) accuracy; generalizability
- (B) applicability; consistency
- (C) accuracy; consistency
- (D) consistency; accuracy

**Answer:** (D) consistency; accuracy

**13 Karl conducted an experimental study to see the relationship between room lighting and test performance. He randomly assigned participants to one of three conditions: room with dim lighting, room with normal lighting, and room with bright lighting. He then gave the participants a cognitive ability test. What statistical test should he use to compare the mean test performance of the three groups?**

- (A) correlation
- (B) t-test
- (C) ANOVA
- (D) meta-analysis

**Answer:** (C) ANOVA

**14 Rocio manipulates the level of stress that participants are exposed to, such that one group of 50 participants are randomly assigned to a low stress condition and another group of 50 participants are randomly assigned to a high stress condition. He later measures the participants' performance on a memory test. What is the independent variable (IV) in this example?**

- (A) level of stress
- (B) number of participants
- (C) performance on the memory test
- (D) random assignment

**Answer:** (A) level of stress

**15 Hilda is developing a test of college algebra. She does this by speaking to experts in college algebra (instructors) about what is expected as part of a college algebra course and also examining the material in algebra textbooks. Hilda appears to be using a \_\_\_\_ approach to develop her test.**

- (A) content validity
- (B) construct validity
- (C) criterion-related validity
- (D) None of the above. This is a non-scientific way to develop a test.

**Answer:** (A) content validity

**16 Which of the following refers to the degree to which a measure is consistent over time?**

- (A) Inter-Rater Reliability
- (B) Test-Retest Reliability
- (C) Criterion-Related Validity
- (D) Internal Consistency Reliability

**Answer:** (B) Test-Retest Reliability

**17 \_\_\_\_\_ refers to the degree to which a measure is free of random error.**

- (A) Reliability
- (B) Validity
- (C) Generalizability
- (D) Utility

**Answer:** (A) Reliability

**18 Which entity reviews and governs the research process at a university?**

- (A) University Research Committee (URC)
- (B) Institutional Review Board (IRB)
- (C) Agency for Ethical Research (AER)
- (D) American Psychological Association (APA)

**Answer:** (B) Institutional Review Board (IRB)

**19 As the error variance of a measure goes up, \_\_\_\_\_.**

- (A) reliability goes up
- (B) validity goes up
- (C) reliability goes down
- (D) none of the above

**Answer:** (C) reliability goes down

**20 Zoe is studying the relationship between personality and later job performance. In this study, personality would best be described as a(n) \_\_\_\_\_.**

- (A) independent variable
- (B) dependent variable
- (C) antecedent
- (D) criterion

**Answer:** (C) antecedent

**21 \_\_\_\_\_ is the degree to which a scale measures what it is supposed to measure.**

- (A) reliability
- (B) validity
- (C) generalizability
- (D) criterion

**Answer:** (B) validity

**22 Carlos is developing a test of math skills. He finds that his math test has a strong correlation with another math test and also with a test of verbal ability. In this case, his test is showing \_\_\_\_\_.**

- (A) good convergent validity and good discriminant validity
- (B) poor convergent validity and poor discriminant validity
- (C) poor convergent validity and good discriminant validity
- (D) good convergent validity and poor discriminant validity

**Answer:** (D) good convergent validity and poor discriminant validity

**23 Alessia is developing a test of academic achievement to predict college success. She gives the test to a group of college students. She correlates their test scores with their GPA and finds that there is a significant correlation between the test and GPA. This is a demonstration of \_\_\_\_\_.**

- (A) content validity
- (B) construct validity
- (C) criterion-related validity
- (D) convergent validity

**Answer:** (C) criterion-related validity

**24 Which of the following is the most accurate statement about the validity of a measure?**

- (A) Content validity is the degree to which the test predicts an outcome of interest
- (B) There are not really three "types" of validity, but rather, many different types of evidence that a measure is valid.
- (C) Criterion-related validity is the overarching method for accumulating validity evidence.
- (D) Discriminant validity is the most important method to be sure that the test is fair and unbiased.

**Answer:** (B) There are not really three "types" of validity, but rather, many different types of evidence that a measure is valid.

**25 Test-retest reliability involves giving a measure to a sample of people and then \_\_\_\_\_.**

- (A) giving them the test again and seeing the degree to which their scores are correlated.
- (B) giving the test to another group of people and seeing the degree to which their scores are correlated.

- (C) giving the same people a different version of the test and seeing if the scores on the two versions of the test are correlated.  
(D) seeing the degree to which the odd-numbered items are correlated with the even-numbered items.  
**Answer:** (A) giving them the test again and seeing the degree to which their scores are correlated.

**26 Jaime has 100 employees' scores on a personality test and their job performance. He has found a statistical relationship between the two. But now he wants to be able to use the test to predict a person's job performance score. To do this, he best statistic for him to use would be \_\_\_\_.**

- (A) correlation  
(B) ANOVA  
(C) meta-analysis  
(D) linear regression

**Answer:** (D) linear regression

**27 Mohamed is a researcher trying to figure out the relationship between leadership and happiness. He has found 20 different studies on this topic, but the results differ some from study to study. He wants a statistical summary of these studies so he can understand what the overall conclusion is from these studies. The best statistic for him to use would be \_\_\_\_.**

- (A) correlation  
(B) ANOVA  
(C) meta-analysis  
(D) linear regression

**Answer:** (C) meta-analysis

**28 Which of the following is the best research study design for I-O research?**

- (A) correlational study  
(B) field study  
(C) laboratory study  
(D) Some combination of methods is probably best

**Answer:** (D) Some combination of methods is probably best

**29 Which of the following is necessary for a study to be considered a true experiment?**

- (A) There is an experimental group receiving a manipulation.  
(B) There is a control group not receiving a manipulation.  
(C) There is random assignment to groups.  
(D) All of the above are required for a true experiment.

**Answer:** (D) All of the above are required for a true experiment.

**30 Whereas the \_\_\_\_ begins with a theory and sets out to test hypotheses based on this theory, the \_\_\_\_ begins with observing a phenomenon and then developing a theory to explain it.**

- (A) observational approach; experimental approach  
(B) experimental approach; observational approach  
(C) inductive approach; deductive approach  
(D) deductive approach; inductive approach

**Answer:** (D) deductive approach; inductive approach

**31 Whether the findings of a study are meaningful and important is referred to as \_\_\_\_.**

- (A) statistical significance  
(B) validity  
(C) reliability  
(D) practical significance

**Answer:** (D) practical significance

**32 \_\_\_\_ research examines what employers can actually do to improve the attitudes, well-being, health, and performance of workers.**

- (A) intervention  
(B) observational

(C) practical significance  
(D) meta-analytic  
**Answer:** (A) intervention

### **TRUE/FALSE**

**33 If the correlation between two variables is -1.00, this indicates that there is a perfect, negative relationship between the two.**

**Answer:** True

**34 Linear regression is mostly commonly used to test whether there is a significant difference between two means.**

**Answer:** False

**35 ANOVA is used to test whether there are significant differences among three or more means.**

**Answer:** True

**36 When reliability is low, researchers can be more confident that differences in scores are meaningful and can differentiate among individuals**

**Answer:** False

**37 Criterion-related validity is shown by documenting that the test was developed to sample the conceptual domain of interest.**

**Answer:** False

**38 Test-retest reliability is shown by giving a test to two different samples and seeing if their scores are correlated.**

**Answer:** False

**39 Discriminant validity is part of the process of demonstrating construct validity.**

**Answer:** True

**40 Meta-analysis is used to summarize the results of several studies.**

**Answer:** True

**41 Linear regression is used to develop an equation for the best fit line that explains the relationship between two variables.**

**Answer:** True

**42 As error variance of a measure goes up, the reliability goes down.**

**Answer:** False

**43 The \_\_\_\_\_ approach: A research approach that begins with a theory and sets out to test hypotheses based on this theory.**

**Answer:** Deductive

**44 \_\_\_\_\_ are sophisticated methods that graphically illustrate the relationships among variables to aid in data interpretation.**

**Answer:** Big data visualization methods

**45 \_\_\_\_\_ is a variable that covaries with the IV and whose effects on the dependent variable are not easily disentangled from the IV.**

**Answer:** Confound variable

**46 \_\_\_\_\_ uses datasets that have already been collected by others and are made available for analysis.**

**Answer:** Archival research

**47 \_\_\_\_\_ is used to determine the degree of relationship between two variables, X and Y, and describes the best-fit line that describes the relationship in terms of an equation.**  
**Answer:** Linear regression

**48 \_\_\_\_\_ is used to determine whether the difference between two means is statistically significant.**

**Answer:** T-test

**49 \_\_\_\_\_ refers to the dependability of a measure, or its consistency in measurement.**

**Answer:** Reliability

**50 \_\_\_\_\_ is where a test is given to a group of people twice in order to see how stable their scores are by correlating their test scores.**

**Answer:** Test-retest reliability

**51 \_\_\_\_\_ is where two forms of a test are given to the same people at the same time and the scores on both measures are correlated to provide a reliability estimate.**

**Answer:** Parallel forms reliability

**52 \_\_\_\_\_ involves the empirical demonstration that the test predicts an outcome that you care about. This is commonly done by correlating the test and the outcome.**

**Answer:** Criterion-related validity

**53 What is one strength and one weakness of experimental designs? What is one strength and one weakness of correlational designs?**

**Answer:** Experimental designs: can make stronger inferences about causality, but can be impractical in some cases (or even unethical). Can also be unrealistic.  
Correlational designs: can be simpler, especially in field settings, but can be difficult to determine causality.

**54 How does linear regression go beyond correlation**

**Answer:** Both of them show the relationship between two variables. But regression also develops an equation for a best-fit line to explain that relationship. That also allows to predict a score on one variable from the other.

**55 How do quasi-experimental designs differ from true experimental designs? What is an advantage of quasi-experimental designs?**

**Answer:** Quasi-experimental designs approximate true experiments but lack one aspect such as random assignment to conditions or a control group. Advantage: can be much easier to implement in a field setting because quasi-experimental designs can use pre-existing groups (e.g., facilities, units) rather than random assignment.

**56 Brandon conducts a review of the literature on positive emotion in the workplace. While reading through many studies on the topic, he finds that the correlation between positive emotion and work outcomes (e.g., performance) vary in size from study to study. What are some reasons for why the size and sign of correlations differ across studies? How might Brandon quantitatively review or synthesize this research to get better estimates of the "true" relationships between positive emotion and selected work outcomes?**

**Answer:** The size of the correlation may differ across studies based on issues like sample sizes (and sampling error) different types of workers, organizations, and industries. A meta-analysis

could be conducted to quantitatively combine the results to provide a better estimate of the "true" relationships between positive emotion and the work outcomes. A meta-analysis may also identify the presence of moderators that may explain differences in the magnitude and/or sign of the relationships between positive emotion and the work outcomes.

**57 Name one advantage of using surveys to collect participant data. Name one disadvantage.**

**Answer:** Advantage: collect a large amount of data from many participants relatively easily.  
Disadvantage: data may lack richness and depth.

**58 A) Joe is comparing 2 training programs to see if they affect performance. He gives one set of training to one group of employees and the other training to another group. How should he see if the mean performance of the two groups is different. B) He then gives a third training program to another group. Now he wants to compare the means of all three groups. What statistic should he use for that. Why?**

**Answer:** He should use t-test for the 2 groups, and ANOVA for the 3 groups. This is because t-test is used to compare the mean of two groups. ANOVA needs to be used with the 3 groups. It is used for testing differences between 2 or more groups.

**59 What is an advantage and a disadvantage of collecting qualitative data?**

**Answer:** Advantage: can provide rich data with a lot of detail about individual and his/her experience.

Disadvantage: relatively time-consuming and difficult to collect data from large samples.

**60 Why might the informed consent process be challenging if participants in your sample come from a broad range of cultural, educational, and national backgrounds?**

**Answer:** Informed consent ensures that individuals understand the study risks/benefits before volunteering to participate. As such, an informed consent process that can be understood by one group of participants may not be well understood by another.

**61 Name and define three measures of central tendency.**

**Answer:** Mean: average of scores.

Median: central score in a group or distribution of scores.

Mode: most frequently occurring number in a group of scores.

**62 Name at least two types of reliability and how they are used.**

**Answer:** Test-retest: Administer the test or measure to a group of people on **two occasions**.

Correlate scores from the two occasions. Parallel forms: Administer two, parallel forms of the measure to a group of people on a **single occasion**. Correlate the scores obtained from the two tests. Split-halves: Administer the measure to a group of people on a single occasion. Correlate their scores on the two halves of the test (e.g., odd-numbered items and even-numbered items).

Alpha: Administer the measure to a group of people on a single occasion. Calculate intercorrelations of the items. Inter-rater: Used when two people rate a series of job candidates (e.g., in a hiring interview) or employees. Calculate the correlation between Rater 1's scores with Rater 2's scores.

**63 A friend tells you that there are three different kinds of validity. Explain to them why that isn't really so.**

**Answer:** There are not three "types" of validity, but different types of evidence that a measure is valid. In many ways, construct validity is the overarching method for accumulating validity evidence because of its focus on the accumulation of validity evidence from multiple studies.

**64 What is meant by convergent and discriminant validity? What are they used for? Give an example of how you might use these with regard to a verbal ability test you are developing.**

**Answer:** They are used to show construct validity. Convergent is the measure correlates with similar measures, and discriminant is that it doesn't correlate with things it shouldn't correlate with. For the verbal test, it should correlate with other verbal tests, and not correlate with things like math ability or personality.



