

- b. mode
 - c. student's t-test
 - d. numerical covariate
 - e. standard score
6. Researchers find that adolescents with low IQ will report more delinquent acts than high IQ adolescents. The researchers may report this finding as
- a. $r = +.26$
 - b. $*r = -.14$
 - c. $z = +1.0$
 - d. $z = -.50$
 - e. $t = -.34$
7. The practical significance of dynamic predictors is that they
- a. are easily measured
 - b. *identify need factors
 - c. are resistant to treatment
 - d. are poor risk factors
 - e. focus on the changing economic conditions
8. The following research design provides knowledge of dynamic predictors:
- a. extreme groups
 - b. survey
 - c. longitudinal
 - d. test-retest
 - e. *multi-wave longitudinal designs
9. The recidivism rate is 70 percent in the higher risk group and 30 percent in the lower risk group. The correlation between assessed risk and recidivism is
- a. low
 - b. moderate
 - c. high
 - d. $*.40$
 - e. $.35$
10. A fictional study finds that 70 percent of criminals and 40 percent of noncriminals had tattoos. The approximate correlation between tattoos and criminal status is
- a. 0.70
 - b. $*0.30$
 - c. -0.70
 - d. -0.30

- e. 0.40
11. A Pearson product correlation coefficient is a statistical measure of
- a. significance
 - b. *the magnitude of the association
 - c. mediating influence
 - d. the representativeness of the sample
 - e. probability
12. A 95 percent CI of .24 to .36 means that
- a. there is a 5 percent chance that the findings are wrong
 - b. the findings are statistically significant at $p = .05$
 - c. *if the study is replicated there is a 95 percent chance that the new confidence intervals will fall between .24 and .36
 - d. there is a 95 percent chance that if the study was repeated the point estimate will fall within the range of the specified CI
 - e. the results are not meaningful because the CI is greater than 10 points
13. When two CIs do *not* overlap it means that
- a. *there is a significant difference between the findings
 - b. there is *no* significant difference between the findings
 - c. the findings are unlikely to be replicated
 - d. the p level is greater than .05
 - e. the study needs to be replicated
14. The Area Under the Curve (AUC)
- a. is always positive in value
 - b. is unaffected by base rates
 - c. is unaffected by selection ratios
 - d. *both b) and c)
 - e. all of the above

Short-Answer Questions

1. You are asked to design a study that will evaluate the effectiveness of a program that teaches parents how to decrease the incidence of swearing by their children. Forty families with “mouthy” children have volunteered to participate in the evaluation of this “dirty word reduction” training program. Design a study to evaluate the functional validity of the treatment program, making sure that you attend to the key methodological factors.

Scoring Key:

Marks are given for a description of the key features of an experimental design. Each of the following features should be described:

- a) Random assignment of families
- b) At a minimum, there will be at least one treatment group and one control group
- c) Comparison of outcome for the experimental and control groups
- d) Use of objective measurement

2. Define the four types of covariates and link each to its respective research design.
For each research design describe their essential features.

Scoring Key:

The four covariates and their corresponding research designs are:

Correlate and cross-sectional design
Predictor and longitudinal design
Dynamic predictor and multi-wave longitudinal design
Causal and experimental design

Cross-sectional research designs compare at least two groups known to differ in their criminal past. This may involve extreme groups or survey methodology.
Longitudinal designs assess the relationship between variables measured at one point in time to future criminal behavior.

Multi-wave-longitudinal designs require measurement of the variables at a minimum of two points in time and the change between the two time periods is linked to future behavior.
The experimental design requires the random assignment of participants to groups (at least one experimental group and one control group) and measurement after the intervention.

Chapter 3

From Criminology Theories to a Psychological Perspective of Criminal Conduct