

General Psychology Study Guide 2

Readings: Nairne Chapter 2

1. What is the law of large numbers? Why is it an important concept in experimental design?
2. Define random assignment, and describe how it helps researchers to control subject differences in experimental and control groups.
3. What is naturalistic observation, and how does it attempt to avoid the problems associated with reactivity? What are some examples of how naturalistic observation can be used to examine behavior?
4. What is the purpose of psychological tests? What is the difference between aptitude tests and achievement tests?
5. What is the purpose of statistics?
6. What is a measure of central tendency? Describe each of the measures of central tendency. Which measure(s) are the most appropriate, and why?
7. Describe variability, and why it is important to consider. Define range and standard deviation
8. What is the purpose of a correlation? What is a correlation coefficient, and what does it tell us about the relationship between two variables? How is this represented in a scatter plot?
9. Distinguish between a control group and an experimental group—
10. What is a confounding variable, and how does it affect the interpretation of experimental results? How do researchers solve the problem of confounding variables? How do confounding variables relate to internal validity?
11. What are expectancy effects? What are two ways in which an experimenter can control for these effects?
12. Describe how single-blind studies and double-blind studies help control for expectancy effects.
13. Experimentally, what is meant by the term control? What is the relationship between the amount of control employed in a research study and the degree of external validity?
14. What are independent and dependent variables, how are they related?
15. How do experiments differ from other forms of research? What are the necessary components of a true experiment?
16. What is meant by the term validity? Distinguish between internal and external validity. Why are both types of validity important?
17. Describe what is meant by the concept of causation. What elements are required in order to assign cause in research?
18. What is a correlation? What information does a positive correlation provide? What information does a negative correlation provide? Does correlation imply causation? Why or why not?
19. What is meant by the term statistical significance? Are statistical and functional significance synonymous? Why or why not?

How experiments differ from other research