

Name: _____ Date: _____ Period: _____

Statistics Quiz

1. What the experimenter thinks may be true or wishes to be true before he or she begins an experiment. Also called the research hypothesis. A. Dependent Variable
2. A relationship in which one factor can be said to be the cause of another. This relationship can be tested with controlled experiments. B. Alternative hypothesis
3. The degree of relationship between two variables. C. Correlation
4. A parameter that is equal to the number of observations or groups in a study minus some value(s) that limit the observations' or groups' freedom to vary D. Observational Study
5. A variable that is not accounted for in the experimental design, varies systematically with the dependent variable, and prevents a clear interpretation of the effect of the independent variable on the dependent variable. E. Cross Sectional Study
6. The most powerful experimental design because it allows for the inference of causation. The participants are randomly chosen from a population and randomly assigned to one of two (or more) groups, usually an experimental group that receives some treatment and a control group that receives a placebo F. Nondirectional Alternative h.
7. A research study that involves a single observation (such as an interview or questionnaire), which may be useful to determine how variables affect each other at the same time and period. G. Confounding Variable
8. A parameter that is equal to the number of observations or groups in a study minus some value(s) that limit the observations' or groups' freedom to vary H. Degrees of Freedom
9. In an experiment, a measure expected to vary across different levels of the independent variable. It is also called the response variable I. Independent t-test
10. Where the alternative hypothesis is specifically stated beforehand; for example, Group 1's mean is greater than Group 2's mean. This is also called a one-tailed test of significance. J. Causal Relationship

11. Neither the participant nor the treatment allocator knows whether the participant has been allocated to a treatment or control group
12. A type of study in which all variable measurements and manipulations are under research control. The goal of an experiment is to control the environment in such a way that manipulation of the independent variable yields a direct, corresponding change in the dependent variable
13. A statistical test to determine whether there are significant differences between two independent groups' means being tested on the same dependent variable.
14. Where the null hypothesis will be rejected if either Group 1's mean exceeds Group 2's mean, or vice versa, or where the null hypothesis will be rejected if a relationship exists, regardless of its nature. This is also called a two-tailed test of significance.
15. The starting point in scientific research where the experimenter assumes there is no effect of the treatment or no relationship between the two variables
16. A type of study in which individuals are observed or certain outcomes are measured. No attempt is made to affect the outcome (for example, no treatment is given).
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18. A research study that follows over time groups of individuals who are alike in many ways but differ by a certain characteristic (for example, female nurses who smoke and those who do not smoke) and compares them for a particular outcome (such as lung cancer).
- K. Controlled randomized
- L. Prospective Cohort Study
- M. Experimental Study
- N. Observational Study
- O. Degrees of Freedom
- P. Null Hypothesis
- Q. Directional Alternative Hypo
- R. Double-Blind Experiment: