

Name(s): _____

AP Psychology Graded Activity: Designing an Experiment

Directions:

Individually or in pairs, you will generate an original research question (any question that a psychologist would examine is fine) and design your own "experiment" to answer it. This is a graded exercise based on your ability to apply course content and terminology. Each component has a corresponding point value in parentheses. Please include your work in the space provided and attach additional sheets if necessary.

Your Question (5 points):

Who should be included in the study and why? (5 points)

Propose a hypothesis as if your experiment was going to work (5 points)

Identify your independent and dependent variables. Please provide operational definitions for each (15 points).

IV:

Operational Definition:

DV:

Operational Definition:

Identify at least TWO confounding variables and explain how they could interfere with the results you wish to obtain (10 points).

Describe at least TWO ways that you would control for the confounding variables. Choose from the list below (10 points).

- Sampling - random vs. random stratified sample
- Random sampling vs. random assignment
- Sample size
- Single blind
- Double blind
- Use of control group(s)

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Outline a flowchart showing your experimental procedure (15 points). Use the space below or attach an additional sheet.

Data and Analysis

a) Explain how you would use descriptive statistics to record and observe data. Include a discussion of central tendency, frequency distributions, and the use of graphs. Draw an example of a graph you expect to produce. Be sure to label your x and y axes correctly (15 points).

b) Explain how you would use inferential statistics to analyze the data you would collect. Include a discussion of statistical techniques (T test/ ANOVA) and statistical significance (including correct usage of P value) (10 points).

Validity and Reliability - Define "validity" and "reliability" and explain how each term applies to your particular study (10 points).
