

## Unit 2: Practice FRQ

### Essay

1. Professor Hahn received a grant to study the relationship between childhood obesity and video game playing. Answer the following questions about Professor Hahn's research study:
  - A. Explain how Professor Hahn could use each of the following research methods to study this topic:
    - Case study
    - Survey
    - Naturalistic observation
  - B. Design an experiment Professor Hahn could use to investigate this topic, including the following terms in the context of your design.
    - Operational definition
    - Independent and dependent variable
    - Random assignment
  - C. Explain how Professor Hahn's experimental design would conform to ethical guidelines.
  - D. Explain how Professor Hahn would use statistics (including at least one measure of central tendency and inferential statistics) to examine the data from the study to reach a conclusion.

## Unit 2: Practice FRQ Answer Section

### ESSAY

1. ANS:

Point 1: Case Study: Students should note that Professor Hahn should choose one child and gather detailed information about that child's video game habits and health (such as eating habits, weight, and other related factors).

Point 2: Survey: Students should note that Professor Hahn should gather data from a large sample of children representing his population of children through a survey measuring both video game playing and obesity.

Point 3: Naturalistic observation: Students should note that Professor Hahn should gather data about children's video game habits and health by observing behaviors in a public setting.

Point 4: Operational definition: Students should provide at least one correct operational definition for video game playing (such as timing how long children play video games) and obesity (such as calculating body mass index).

Point 5: Independent and dependent variables: Students should identify video game playing as the independent variable and obesity as the dependent variable in the experimental design.

Point 6: Random assignment: Students should explain how participants could be randomly assigned to either the experimental condition or the control condition (the conditions should differ based on the independent variable: video game playing).

Point 7: Ethical guidelines: Students' experimental design should conform to ethical guidelines for human participants, including accurate descriptions of how the experiment includes informed consent, protection from harm, confidentiality, and debriefing.

Point 8: Use of Statistics: Students' explanation of how Professor Hahn would use statistics to examine results of the experimental design they described should include at least one measure of central tendency (mean, median, or mode) and the idea that inferential statistics would be used to determine if the difference between the experimental group and the control group is statistically significant.

PTS: 1

OBJ: Unit II