Psychological Research and Methods, ch. 2

1. Identify the sampling technique used (random or stratified and explain your answer):

a) Every fifth person boarding a plane is searched thoroughly.

b) A researcher randomly selects and interviews fifty male and fifty female teachers.

c) Based on 12,500 responses from 42,000 surveys sent to its alumni, a major university estimated that the annual salary of its alumni was 92,500.

d) A market researcher randomly selects 200 drivers under 35 years of age and 100 drivers over 35 years of age.

e) The names of 70 contestants are written on 70 cards, the cards are placed in a bag, and three names are picked from the bag.

2. Design a chart that shows what steps psychologists should take when doing experimental research. Use the one on pg 40 as an example.

3. List and describe the advantages and disadvantages associated with each method of research.

|  |  |  |  |
| --- | --- | --- | --- |
| Research Method | Description | Advantages | Disadvantages |
| Naturalistic Observation |  |  |  |
| Case Study |  |  |  |
| Survey |  |  |  |
| Longitudinal Studies |  |  |  |
| Cross-Sectional Studies |  |  |  |
| Correlations and Explanations |  |  |  |
| Experiments |  |  |  |

4. Smithers thinks that a special juice will increase the productivity of workers. He creates two groups of 50 workers each and assigns each group the same task (in this case, they're supposed to staple a set of papers). Group A is given the special juice to drink while they work. Group B is not given the special juice. After an hour, Smithers counts how many stacks of papers each group has made. Group A made 1,587 stacks, Group B made 2,113 stacks.

Identify the:

a. Control Group

b. Independent (Manipulated) Variable

c. Dependent (Responding) Variable

d. What should Smithers' conclusion be?

5. Homer notices that his shower is covered in a strange green slime. His friend Barney tells him that coconut juice will get rid of the green slime. Homer decides to check this this out by spraying half of the shower with coconut juice. He sprays the other half of the shower with water. After 3 days of "treatment" there is no change in the appearance of the green slime on either side of the shower.

Identify the:

a. Control Group

b. Independent (Manipulated) Variable

c. Dependent (Responding) Variable

d. What should Homer's conclusion be?

6. Bart believes that mice exposed to radiowaves will become extra strong (maybe he's been reading too much Radioactive Man). He decides to perform this experiment by placing 10 mice near a radio for 5 hours. He compared these 10 mice to another 10 mice that had not been exposed. His test consisted of a heavy block of wood that blocked the mouse food. he found that 8 out of 10 of the radiowaved mice were able to push the block away. 7 out of 10 of the other mice were able to do the same.

Identify the:

a. Control Group

b. Independent (Manipulated) Variable

c. Dependent (Responding) Variable

d. What should Bart's conclusion be?

7. Lisa is working on a science project. Her task is to answer the question: "Does Rogooti (which is a commercial hair product) affect the speed of hair growth". Her family is willing to volunteer for the experiment.

Design Lisa's experiment.