

Unit 2: Research and Methods Study Guide

Directions: Complete the study guide below using your class notes, in class assignments, and the textbook if needed. Be very specific, so that it will be helpful for your test! Turn this in on the day of the test.

Intro to Research <https://goo.gl/Mrw3Qm>

As an intro to research, we looked at the three steps in the Scientific Method OR goals of Psychological research. Answer the following questions about these four goals.

1. What are the Four goals of experimental research?

1. **Describe Social Behavior**
2. **Establish a correlation between cause and effect**
3. **Develop theories about why people behave the way that they do**
4. **Apply research to solve problems**

2. Define the following two aspects of a sample:

1. Random: **Every person has an equal opportunity to be selected for research**
2. Stratified: **Breaking a population down into groups that are representative (ex: racial, gender, age)**

Research Methods

Fill in the chart below about the types of research methods. Describe each one and explain the benefits as well as the disadvantages of each method.

Method	Description	Advantages	Disadvantages	Example
Case Study	An in depth look at an individual or a small group of people	Ability to get great detail about that small group or individual	Unable to generalize about the population at large- cannot say that conclusions are true about all people	Kip Kinkel, Las Vegas shooting
Experiment	Researchers isolate effects by manipulating an independent variable and keeping other variables constant. Experimental group and control group	Researchers are able to isolate particular effects by ensuring a secure testing environment.	Does not necessarily reflect reality. False intuition (hindsight bias, overconfidence, etc.) ethical issues (deception, informed consent, confidentiality)	Harlow's Monkey's, Tudor Experiment
Survey	Researchers gain lots of data and information through questionnaires or interviews. Use standardized questions.	Good way to gather a great deal of information. Can allow for comparison between groups.	Questions may be biased. Standardized questions can limit responses- doesn't account for individualism.	Music Survey, Customer service response survey

Naturalistic Observation	Researchers watch behaviors in a natural environment. No researcher involvement.	Very good for describing particular behaviors. More likely to see natural behavioral actions	Very hard to generalize. Very limited in ability to explain behavior	Iguana running from snakes Nature documentaries
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1. Define **Independent Variable**: _____ What is manipulated in an experiment by a researcher- is applied to the experimental group _____

2. Define **Dependent Variable**: _____ The variable that is measured based on changes with the independent variable- the outcome variable _____

3. Experiments are made up of two groups. Name the groups and define each one.

- _____ **Experimental** _____ group: **The group that receives experimental treatment; gets “messed with”**
- _____ **Control group** _____ group: **group that does not receive experimental treatment; does not get “messed with”**

Limitations to Our Intuitions and Common Sense

<https://goo.gl/zrXiXC>

Define each of the limitations to research we discussed in class.

1. **Confirmation Bias**: _____ Looking for data that supports the conclusion you already had and rejecting data that contradicts it. You are trying to confirm your own ideas.

2. **Hindsight Bias**:

_____ “I- Knew- It -All - Along” phenomenon. Being more confident in the likelihood of an event occurring after the fact than the real likelihood of it occurring.

3. **Overconfidence**:

_____ Being very sure of a fact and later finding out you were incorrect

4. Single Blind Experiment:

_____ An experiment where the participants are unaware of who is receiving an experimental treatment _____

5. Double Blind Experiment:

_____ An experiment where both the participants and researchers are unaware of who is receiving an experimental treatment. Usually involves a third party _____

6. Placebo Effect:

_____ The phenomenon where believing that one is receiving a treatment affects how they behave _____

Ethical Issues

<https://goo.gl/AzWygB>

Define each ethical issue we discussed in class.

1. Confidentiality: _____ Records are kept private between the researcher and the participant unless information is potentially endangering to the participant or another person _____

2. Informed Consent: _____ People agree or consent to participating only after they have been given a general overview of the research and are given a choice as to whether they can participate or not _____

3. Deception: _____ Some experiments we need to deceive people in order to get the outcomes we couldn't get otherwise. We can only deceive people when:

- When they believe that individuals might have been willing to participate if they had understood the benefits of the research
- When participants receive an explanation of the study after it has occurred
- When researchers believe that the benefits of the research outweigh its potential harms

