

Methodology & Research





Scientific Methods

- Psychologists conduct studies to determine why people behave the way they do in different situations under different circumstances
- Psychological studies provide broad scientific information about what we do, why we do it, and what changes go on during the process.
- The goal of psychologists is to remain objective in their studies.



Purpose of Research

- Many studies investigate our perceptions and the different forces that shape them.
- Ex: stereotypes
 - What is a stereotype?
 - How do we form them?
 - How can research help to dispel or perpetuate stereotypes?
 - <http://www.youtube.com/watch?v=ngS5HX11Np4>



Types of Research

- Experiments
- Survey
- Secondary analysis
- Case study
- Participant observation



Conducting an Experiment

- Experiments involve collection of data in a lab or controlled setting
- Data collected in a laboratory and/or controlled setting
- Advantages:
 - research can be replicated
 - variables can be controlled
- Disadvantages:
 - Difficult to record authentic results
 - Limited number of variables



Methodology Terms

- Placebo

- What is it?
- How does it work?
- <http://www.youtube.com/watch?v=udJ31KKXBkk>

- Double-blind study

- What is it?
- What is the purpose of doing it?
- Advantages/Disadvantages



Conducting an Experiment

- Formulating a Hypothesis
 - What is it based on?
- Selecting Subjects
 - Who are they?
 - How are they selected?



Conducting an Experiment

- Variables
 - What are they?
 - What is a “hidden variable”
 - How can they affect an experiment?



Conducting an Experiment

- Independent Variable= the factor that the experimenter manipulates or changes in a study
- Dependent Variable = the factor in a study that changes or varies as a result of changes in the independent variable.



Experimenting Outside the Lab

- Field Study
 - Experimental group vs. control group
 - What is the purpose of each



Survey

- Characteristics of survey research
 - population
 - group of people with certain characteristics
 - sample
 - group of people representing a population
 - representative sample
 - sample that accurately reflects the characteristics of the population as a whole



Survey

- Characteristics of survey research
 - Which is the best way to achieve a representative sample?
 - A. random selection
 - B. researcher choosing a sample that best represents the population
 - C. having individuals volunteer to participate in the research



Survey

- Gathering information
 - questionnaire
 - written series of questions that participants answer themselves
 - interview
 - the researcher asks the participants the questions and records the answers



Survey

- Open-ended questions
 - the participant answers the question in her/his own words
 - example:
 - How well does St. Viator develop faith in its students?



Naturalistic Observation

- Occurs when researchers secretly observe the subjects of the study – animal or human – in daily activity carefully recording their behavior.
- Advantages?
- Disadvantages?



Interviews

- Research method where subjects are met with in person and asked questions
 - Advantages?
 - Disadvantages?



Case Study

- Developing information about a person's long-term background, in many cases for the purpose of psychological treatment.
- Gives psychologists an overall sense of how a person approaches problems and what his or her general feelings are
 - Advantages?
 - Disadvantages?



Psychological Tests

- Objective methods for observation and measurement of subjects in various areas, such as intelligence.
 - IQ test
 - Advantages?
 - Disadvantages?



Secondary Analysis

- Using pre-collected data in your research
- Practical & time saving
- Examples:
 - census numbers
 - prison data
 - attendance figures
 - unemployment data



Case Study

- Thorough investigation of a specific group/incident
- Advantages:
 - wealth of information
 - better understanding of group behavior
- Disadvantages:
 - Time
 - results may not apply to similar groups
 - hard to duplicate



Participant Observation

- Method where the researcher becomes a member of the group being studied
 - group may or may not be aware of the researcher
- Advantages:
 - first hand knowledge of group behavior
- Disadvantages:
 - group may act different if aware of researcher
 - depending on subject matter, researcher may be in danger