

How Can I do a Literature Search?

- Search PsycInfo
 - Use free-text descriptor words
 - Use PsycInfo and other reference databases
 - Keep a running list
- Read original work
- Do not depend on media accounts
- Think critically

Rosnow/Rosenthal, *Beginning Behavioral Research*, 6/e. Copyright (c) 2008 by Prentice Hall.

How Can I Find Research Reports

- Web of Knowledge
 - <http://apps.webofknowledge.com>
- PubMed
 - <http://www.ncbi.nlm.nih.gov/pubmed>

How Can I do a Literature Search?

- Search PsycInfo
 - Use free-text descriptor words
 - Use PsycInfo and other reference databases
 - Keep a running list
- Read original work
- Do not depend on media accounts
- Think critically

Rosnow/Rosenthal, *Beginning Behavioral Research*, 6/e. Copyright (c) 2008 by Prentice Hall.

Variables

A *variable* is a characteristic of a person, place or a thing that can change (vary) over time or from one situation to another.

E.g.: temperature, height, weight, etc...

Almost anything can be considered a variable:

"Blond, S. M. 25 seeks S. F. aged 20-26, for fun and friendship"

Operational and Conceptual Definitions

- **Conceptual definition** – A dictionary definition; the common meaning of a word
- **Operational definition** – A precise definition of a construct based on how it will be measured or manipulated in a study

Hunger A strong desire or need for food

Hungry: Experiencing a desire or need for food.

Hunger: Number of days without a meal.

Defining Variables

- Theoretical definitions
 - Define variables in abstract terms
 - Hunger – connection between reported feeling of hunger and sensory experience
 - Prejudice – premature judgment
 - Frustration – blocked goals
 - Depression – feeling sadness and despair, sleep and weight problems, lost interest

Rosnow/Rosenthal, *Beginning Behavioral Research*, 6/e. Copyright (c) 2008 by Prentice Hall.

Operational and Conceptual Definitions

- **Conceptual definition** – A dictionary definition; the common meaning of a word
- **Operational definition** – A precise definition of a construct based on how it will be measured or manipulated in a study

Hunger: A strong desire or need for food

Hungry: Experiencing a desire or need for food.

Hunger: Number of days without a meal.

Defining Variables

- Operational definitions
 - Define variables in concrete terms
 - Specific way to measure or manipulate variables
 - Hunger – stomach contractions
 - Prejudice – attitude scale
 - Frustration – interrupting play
 - Depression – Beck Depression Inventory

Rosnow/Rosenthal, *Beginning Behavioral Research*, 6/e. Copyright (c) 2008 by Prentice Hall.

Independent and Dependent Variables

- Dependent Variable
 - "The effect"
 - What is measured
- Independent Variable
 - "The cause"
 - What is manipulated
 - Can occur in combinations (interactions)

Rosnow/Rosenthal, *Beginning Behavioral Research*, 6/e. Copyright (c) 2008 by Prentice Hall.

Independent Variable

Variable that systematically varies across different conditions in the experiment.

- It is what is manipulated in the experiment.

Independent Variable

- IV's have different levels
 - Levels tell you how many types of the IV are in a study
 - An IV must have at least 2 levels.
 - Ex: Gender could be described as a single variable that has 2 levels (male, female)

Dependent Variable

Variable that is allowed to vary freely to see if it is affected by changes in the independent variable

- It is what is measured in the experiment.

An Example

- Does birth order affect one's ÖSS score?
 - Birth order is the IV; ÖSS score is DV
 - For this example, we will only be looking at first, second and third born children. How many levels would this IV have?

Confounds and Extraneous Variables

- **Confound:** Any extraneous variable that covaries (changes with) with the IV and could provide an alternative explanation of the results.
- **An example:** Suppose you are conducting an experiment to see if spaced practice results in better retention than massed practice

Confounds and Extraneous Variables

- Students in the spaced practice group study for 1 hour on Monday, 1 hour on Wednesday, and 1 hour on Friday morning
- Students in the massed practice group study for 3 hours on Thursday
- Everyone is tested on Friday afternoon.
- Is there anything besides my IV (type of study) that might affect my results?