

Research Methods in Psychology

Research Strategies



What We Will Cover in This Section

- Overview.
- Research techniques.
- Literature Reviews.



Research Purposes

- Basic research.
 - Basic knowledge.
 - Theory oriented.
- Applied Research.
 - Problem solving.
 - Task oriented.
- Program Evaluation
 - Has a particular program met its goals?
- Action research.
 - Integration of all three to solve a major problem.



Research Locations

- **Laboratory.**
 - Benefits
 - High control.
 - Good measurement.
 - High internal validity.
 - Issues.
 - Low realism.
 - Low external validity.
- **Field.**
 - Benefits.
 - High realism.
 - High external validity.
 - Issues.
 - Low level of control.
 - Measurement problems.
 - Internal validity

9/2/2006

P767 Research Strategies.ppt

4



Data Collection Strategies

- **Quantitative**
 - Focus on gathering numerical data.
 - Benefits.
 - Easy to tabulate.
 - Objective.
 - Statistical analysis.
 - Issues.
 - May be artificial.
 - Narrow focus.
 - May lose individuals in summary data.
- **Qualitative.**
 - Focus on gathering descriptive data.
 - Benefits.
 - Ongoing behavior.
 - Open ended.
 - Realism.
 - Issues
 - Measurement.
 - Difficult to tabulate.
 - Reactivity.

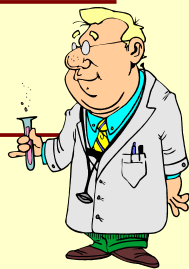
9/2/2006

P767 Research Strategies.ppt

5



Research Techniques



9/2/2006

P767 Research Strategies.ppt

6

Basic Experiment

Treatment Groups	Independent Variable	Dependent Variable
Group 1	Treatment (s) controlled by the experimenter	Measurement(s) made after the treatments are applied.
Group 2		

9/2/2006

P167 - Research Strategies.ppt

7



Experimental Technique

- Advantages.
 - High degree of control.
 - Conclude cause and effect.
 - Permits statistical analysis.
- Disadvantages.
 - Low realism.
 - Restricted to variables that can be manipulated.
 - Difficult to look at complex interactions between variables.
 - Low external validity.
 - Ethical issues.

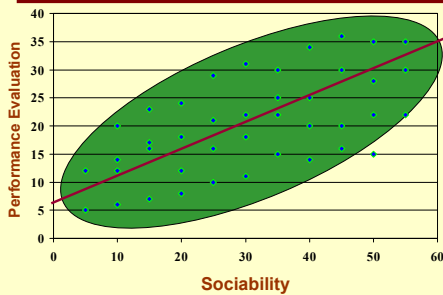
9/2/2006

P167 - Research Strategies.ppt

8



Correlation Technique



9/2/2006

P167 - Research Strategies.ppt

9



Correlational Technique

- Advantages.
 - Looks at the strength of relationships.
 - Permits statistical analysis.
 - Permits assessing variables that may not be amenable to other strategies.
 - Can make predictions.
- Disadvantages.
 - Cannot conclude causality.
 - Low level of control.
 - Statistical assumptions.

9/2/2006

P767 Research Strategies.ppt

10



Observational Technique

- Advantages.
 - See natural, ongoing behavior.
 - See rare or fleeting phenomena.
 - See dangerous events.
 - Initial data gathering in new research.
 - Does theoretical research work in the real world?
 - Idiographic.
- Disadvantages.
 - Low level of control.
 - Reactivity.
 - Participant.
 - Researcher.
 - Cannot conclude causality.
 - Difficult to generalize.

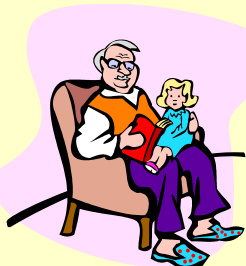
9/2/2006

P767 Research Strategies.ppt

11



Developmental Techniques



9/2/2006

P767 Research Strategies.ppt

12

Advantages and Disadvantages

- Advantages
 - Document behavior changes as a function of maturation.
- Disadvantages.
 - May be confounded by cohort effect.
 - May not be able to conclude causality.
 - Can take a great deal of time.

9/2/2006

P167 - Research Strategies.ppt

13



Research Reports



9/2/2006

P167 - Research Strategies.ppt

14



What We Will Cover

- What a research report is.
- Anatomy of a research report.
- Kinds of research reports.
- Sources.



9/2/2006

P167 - Research Strategies.ppt

15



What is a Research Report?

A formal document that presents the results of some empirical study.

- Usually peer reviewed.
- Usually published.
- Usually presents original research.
- Has a highly structured format.

9/2/2006

P167 Research Strategies.ppt

16



Format



9/2/2006

P167 Research Strategies.ppt

17



Abstract

- Summarizes the research report in 100-150 words.
- Lets the reader decide if the study is of interest.
- Generally summarizes
 - Introduction
 - Method
 - Results
 - Discussion.
- May over simplify.

9/2/2006

P167 Research Strategies.ppt

18



Introduction

- Describes the specific problem being studied.
- Summarizes previous research.
- Describes the basic research strategy.
- Describes the research hypothesis.

9/2/2006

P167 Research Strategies.ppt

19



Method

- Describes in detail how the study was conducted.
 - Participants.
 - Apparatus.
 - Manipulations.
 - Measurement tools.
 - Procedure.
- Should be so detailed that the reader could replicate the study.

9/2/2006

P167 Research Strategies.ppt

20



Results

- Describes the data collected, any statistical analyses, and the conclusions drawn from the statistical analyses.
- The most difficult section to understand.

9/2/2006

P167 Research Strategies.ppt

21



Discussion

- Summarizes the results, presents the implications of the data and may include a critique of the study.
 - Includes alternative interpretations of the data.
 - Describes the limitations of the study.
 - May suggest further research.

9/2/2006

P167 - Research Strategies.ppt

22





9/2/2006

P167 - Research Strategies.ppt

23



Primary Research

- This report summarizes the research done by the authors.
 - Typically summarizes a single research project.
 - Usually the only report; it is unethical to report the same study in several publications.
 - Successful replications are rarely published.

9/2/2006

P167 - Research Strategies.ppt

24



Literature Review

- This report summarizes all of the research done on a particular topic.
 - Typically focus on a specific area.
 - Review what is known and what is not known in the area.
 - Very good source of information on a specific topic area.
 - Considered to be secondary research.

9/2/2006

P167 - Research Strategies.ppt

25



Theoretical Paper

- This is a publication that develops a theoretical explanation for a some particular area.
 - Typically the authors support their theory with data from primary research.
 - Typically authors describe why their theory is better than other theories.
 - Considered to be secondary research.

9/2/2006

P167 - Research Strategies.ppt

26



Meta Analysis

- A research report that summarizes a set of statistical procedures for combining the results of a number of studies.
 - Provides a general assessment of the relationship between similar variables.
 - The focus is on statistical data, not conceptual information.
 - Considered to be secondary research.

9/2/2006

P167 - Research Strategies.ppt

27



What Quizzes May Look Like



9/2/2006

P167 - Research Statistics.ppt

28



Sample Multiple Choice Item.

- 1. This course is called**
 - A. Elementary physics**
 - B. Fun with sushi.**
 - C. Research methods in psychology.**
 - D. Existential phenomenology.**

9/2/2006

P167 - Research Statistics.ppt

29



Typical TRUE FALSE items.

- 1. TRUE FALSE California University of Pennsylvania is not located in the state of California.**
- 2. TRUE FALSE Your professor is Wolley Segap.**

9/2/2006

P167 - Research Statistics.ppt

30



Typical Fill In Items

This course meets on (day of the week) _____ nights.

What kind of tie does your instructor wear?

9/2/2006

P167 Research Strategies.ppt

31



Typical Definition

Define and give an example of the term CHEATING.

CHEATING occurs when a person copies another person's work and turns it in as his/her own. An example would be copying someone's quiz answers or turning in someone else's paper and taking credit for it.

9/2/2006

P167 Research Strategies.ppt

32



Examples of **Bad** Definitions.

CHEATING is when you cheat and do bad things. Like taking your friend's pencil.

CHEATING is illegal stuff people do in class and they get caught.

9/2/2006

P167 Research Strategies.ppt

33



The End