

Module 2 Lecture - Psychological Research

Introductory Psychology

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1 Overview and Introduction

1.1 Textbook Learning Objectives

- Explain how scientific research addresses questions about behavior
- · Discuss how scientific research guides public policy
- · Appreciate how scientific research can be important in making personal decisions
- Describe the different research methods used by psychologists
- Discuss the strengths and weaknesses of case studies, naturalistic observation, surveys, and archival research
- · Compare longitudinal and cross-sectional approaches to research
- Compare and contrast correlation and causation
- Explain what a correlation coefficient tells us about the relationship between variables
- Recognize that correlation does not indicate a cause-and-effect relationship between variables
- Discuss our tendency to look for relationships between variables that do not really exist
- Explain random sampling and assignment of participants into experimental and control groups
- Discuss how experimenter or participant bias could affect the results of an experiment
- Identify independent and dependent variables
- Discuss how research involving human subjects is regulated
- · Summarize the processes of informed consent and debriefing
- Explain how research involving animal subjects is regulated

1.2 Instructor Learning Objectives

- Understand the critical role research plays in solidifying psychology as a science
- Understand the pitfalls and dangers of unethical research
- Be able to identify the core components and features of a described research design

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2 Why is Research Important

- 2.1 Introduction
- 2.2 Use of Research Information
- 2.3 Notable Researchers
- 2.4 The Process of Scientific Research
- 3 Approaches to Research
- 3.1 Introduction
- 3.2 Clinical or Case Studies
- 3.3 Naturalistic Observation
- 3.4 Surveys
- 3.5 Archival Research
- 3.6 Longitudinal and Cross-Sectional Research
- 4 Analyzing Findings
- 4.1 Introduction
- 4.2 Correlational Research
- 4.3 Correlation Does Not Indicate Causation
- **4.4** Illusory Correlations
- **4.5** Causality: Conducting Experiments and Using the Data

"I don't mind not knowing. It doesn't scare me." — Richard P. Feynman

4.6 The Experimental Hypothesis