

Chapter 2

PSYCHOLOGICAL METHODS

Section 1: Conducting Research

Section 2: Surveys, Samples, and Populations

Section 3: Methods of Observation

Section 4: The Experimental Method

Section 5: Ethical Issues

Question: What steps do scientists follow in conducting scientific research?

STEPS IN SCIENTIFIC RESEARCH

- Form a question (posing a question based on experience, psychological theory or common knowledge)
- Form a hypothesis (making an educated guess)
- Test the hypothesis (examining the evidence through any of a variety of means)

Question: What steps do scientists follow in conducting scientific research?

STEPS IN SCIENTIFIC RESEARCH *(continued)*

- Analyze Results (looking for patterns or relationships in the evidence)
- Draw a conclusion (determining whether the findings support the hypothesis and adjusting it if they do not)

Question: Why are proper sampling techniques important?

IMPORTANCE OF PROPER SAMPLING TECHNIQUES

Samples must be selected scientifically to ensure that the samples accurately represent the populations they are supposed to represent

Question: What are the various methods of observation, and how is correlation used in analyzing results?

METHODS OF OBSERVATION

- **Testing Method** – several types of tests measure various elements of human behavior such as abilities, interests, and personality
- **Case-study Method** – researchers conduct in-depth investigations of individuals or small groups

Question: What are the various methods of observation, and how is correlation used in analyzing results?

METHODS OF OBSERVATION *(continued)*

- Longitudinal Method – a group of participants are observed at intervals over an extended period of time
- Cross-Sectional Method – researchers compare the differences and similarities among people in different age groups at a given time

Question: What are the various methods of observation, and how is correlation used in analyzing results?

METHODS OF OBSERVATION *(continued)*

- Naturalistic-Observation Method – researchers observe the behavior of people or animals in their natural habitats
- Laboratory-Observation Method – participants are observed in a laboratory setting

Question: What are the various methods of observation, and how is correlation used in analyzing results?

CORRELATION

- Correlation measures how closely one thing is related to another

Question: What are the purposes and elements of experiments?

PURPOSES AND ELEMENTS OF EXPERIMENTS

- Researchers conduct experiments to learn about cause and effect.
- Elements of experiments include independent and dependent variables, experimental and control groups, and the placebo effect.

Question: How are ethical issues involved in psychological research?

ETHICAL ISSUES AND RESEARCH

- Protect study participants from harm
- Maintain the scientific integrity of the study
- Promote the dignity of the individual
- Foster human welfare
- Confidentiality
- Informed Consent

Question:

How are research questions formed?

