

HSCC 470

Research Methods and Data Analysis in Health Sciences

Research Designs: Basic Concepts

HSCC 470 Research Designs: Basic Concepts

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Unit Objectives

Upon completion of this unit, the student will be able to:

- List and describe the various types of survey research.
- Describe evaluation research.
- Describe a needs assessment.
- Compare and contrast retrospective and prospective study designs.
- Describe a case study.
- Compare and contrast cross-sectional and longitudinal designs.
- Define blocking and describe its purpose and procedure.
- Describe control and discuss its purpose and relationship to internal validity.

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Survey research

- Personal interviews
 - Structured
 - Focused
 - Non-structured
- Telephone interviews
- Written questionnaires

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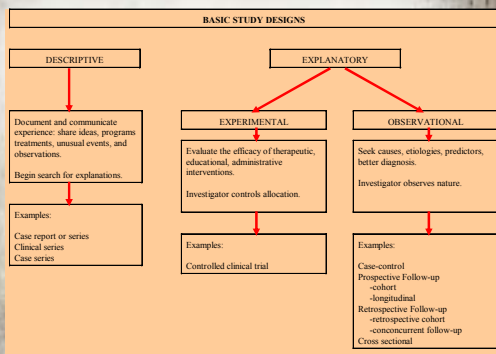
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Evaluation research

- A form of applied research that focuses on the impact, efficiency, or effectiveness of a program, policy, or practice.

Retrospective and Prospective Studies

- Retrospective studies
- Prospective studies



Case studies

- An in-depth investigation of a person, group, or institution.

Cross-sectional designs

- Study involving data related to a snapshot in time.
- Does not permit analysis of trends.

Longitudinal designs

- Trend studies
- Cohort studies
- Panel studies
- Follow-up studies

Experimental Designs

- **Primary feature is the active intervention of the investigator.**
- **Extremely important form of study design.**

Control

- Controlling external factors
 - Setting
 - Time
 - Research protocols
- Controlling internal factors
 - Randomization
 - Homogeneity
 - Blocking
 - Matching



Control = internal validity

Blinding

- **Procedure used to limit bias in data collection and analysis.**
 - Single-blinded
 - Double-blinded
