Kumar: Research Methodology
Chapter 8

Selecting a Study Design

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RESEARCH METHODOLOGY
a step-by-step guide for beginners

Topics covered

- Differences between quantitative and qualitative study designs
- Common study designs in quantitative research
- Common study designs in qualitative research
- Other philosophy-guided designs

Differences between quantitative and qualitative study designs

- Quantitative studies designs:
  - Specific
  - Rigid
  - Well structured
  - Ensure validity and reliability
- Qualitative research designs:
  - Flexible
  - Emergent
  - Non-sequential

Differences in philosophical perspectives determine the approach of enquiry

Study designs in quantitative research

Study designs can be classified by examining from three different perspectives:

1. The number of contacts with the study population
2. The reference period of the study
3. The nature of the investigation

Study designs based on the number of contacts

- **Cross-sectional**: most common and take a cross-section of the population at one point in time
- **Before-and-after**: also known as pre-test/post-test design which take two cross-sectional data collection points on the same population to find out changes.
- **Longitudinal**: the population is researched a number of times; a series of repetitive cross-sectional studies collecting the same information

Study designs based on the reference period (time-frame)

- **Retrospective**: investigate things that happened in the past
- **Prospective**: investigate things that are likely to happen in the future, such as experiments
- **Retrospective-prospective**: focus on both past trends and study it into the future, such as before-and-after studies without a control group

Study designs based on the nature of the investigation

- **Experimental**: starting from the cause to establish the effect; the researcher introduces the intervention that is assumed to cause the change in a controlled or natural environment.

Experimental designs

- Random design
- The after-only design
- The before-and-after experimental design
- The control group design
- The double control group design
- The comparative design
- The ‘matched control’ experimental design
- The placebo design

Study designs based on the nature of the investigation - continued

- **Non-experimental**: Starting with the effect to research the cause; a phenomenon is known and the researcher attempts to establish what caused it.
- **Quasi- or semi-experimental:** This design has elements of both experimental and non-experimental studies.

Figure 8.1 Types of study design

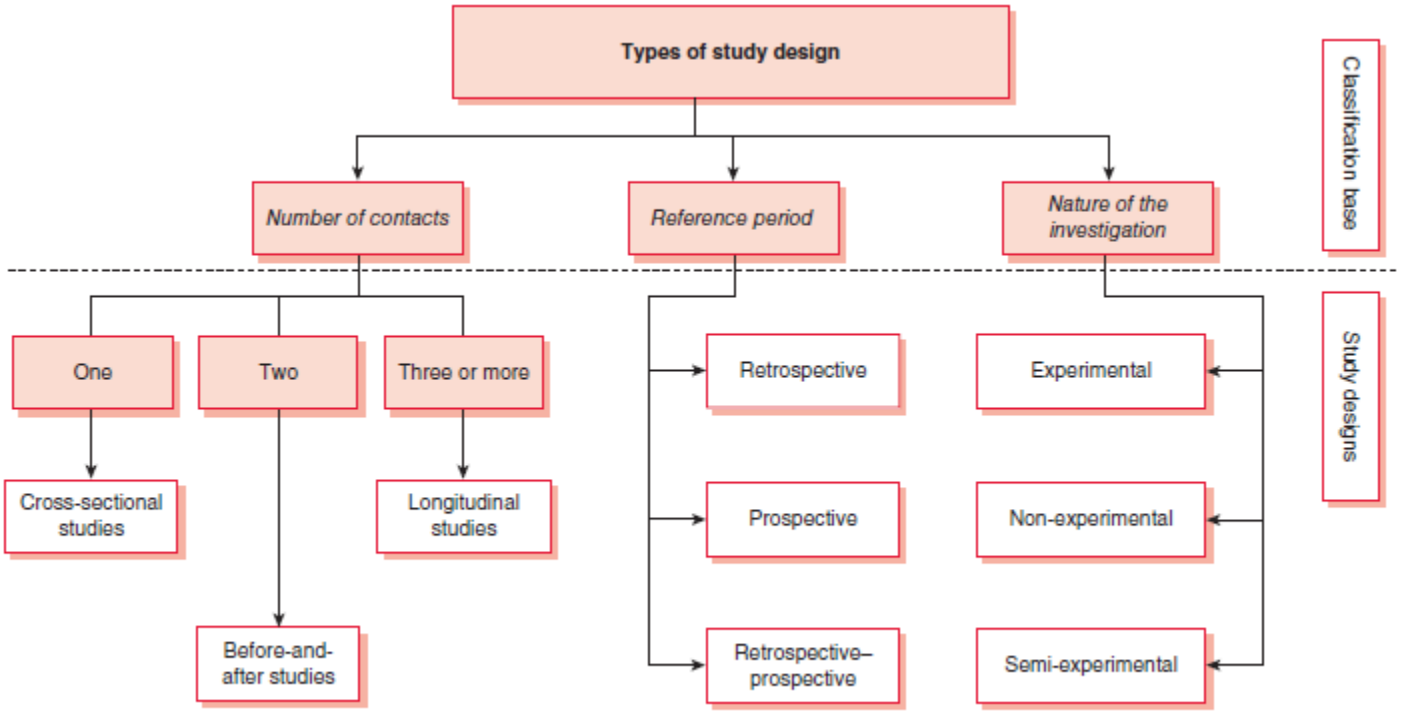

Figure 8.1 Types of study design

Other quantitative designs

- Online surveys
- The cross-over comparative experimental design
- The replicated cross-sectional design
- Trend studies
- Cohort studies
- Panel studies
- Blind studies
- Double-blind studies

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Study designs in qualitative research

- **Case studies**: In-depth exploration of a atypical case of a particular event, group, instance, etc.
- **Oral history**: Obtaining, recording, presenting and interpreting information in someone's own words
- **Focus groups/ group interviews**: Facilitated group interviews of an open discussion of a topic

Study designs in qualitative research continued

- **Participant observation**: Researcher gets involved in a social interaction and observes the situation first hand
- **Holistic research**: More a philosophy, research from every perspective
- **Community discussion forums**: Large group discussion
- **Reflective journal log**: Diary of the researcher's thoughts

Other philosophy-guided designs

- **Action Research**: Research that requires action to improve practice or take action to an issue
- **Feminist research**: Underpinned by feminist concerns in terms social inequality between men and women
- **Participatory and collaborative research enquiry**: Based on the philosophy of community development involving community members actively in the research process