

Kumar: Research Methodology

Chapter 2

The Research Process: A Quick Glance

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Topics covered

The eight step model for carrying out research:

Phase I: DECIDING what to research

Step I: Formulating a research problem

Phase II: PLANNING a research study

Step II: Conceptualising a research design

Step III: Constructing an instrument for data collection

Step IV: Selecting a sample

Step V: Writing a research proposal

Phase III: Conducting a research study

Step VI: Collecting data

Step VII: Processing and displaying data

Step VIII: Writing a research report



Figure 2.1 The research journey

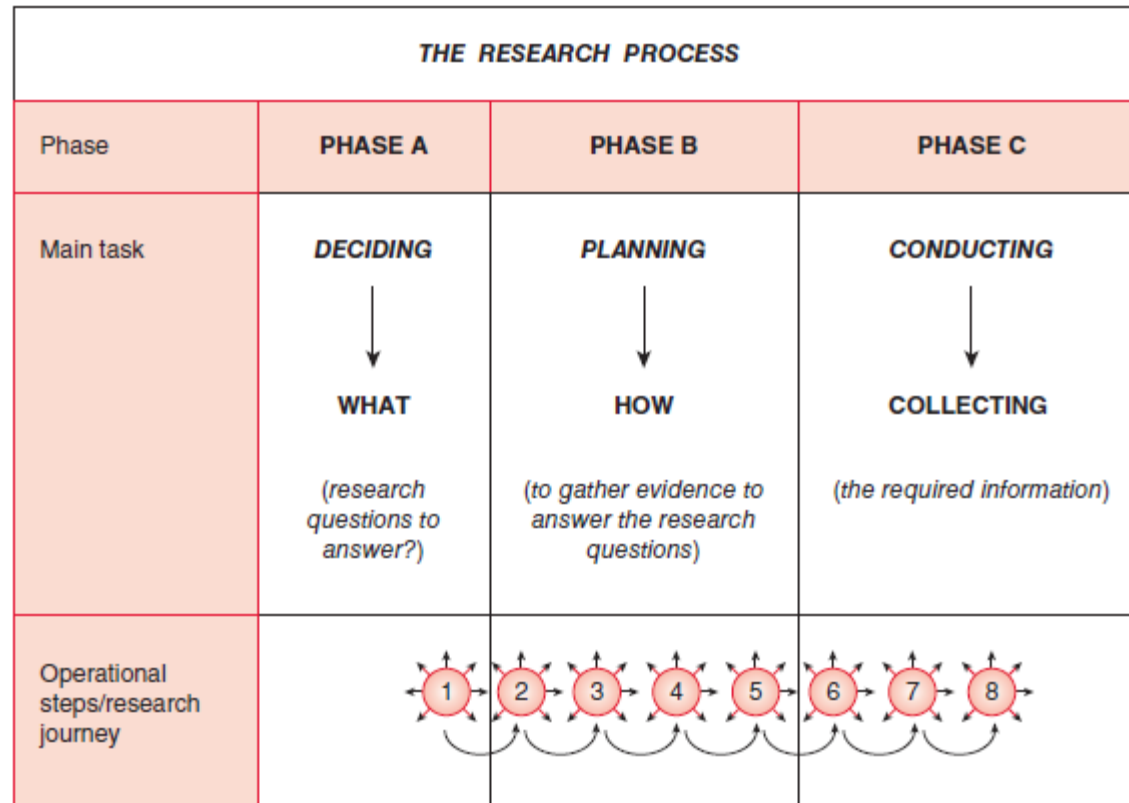


Figure 2.1 The research journey – touch each post and select methods and procedures appropriate for your journey



The research process

- Methodologies differ due to underpinning philosophy
- The process is the same for quantitative and qualitative research
- Each approach uses different research methods for data collection, data processing, analysis and style of communicating the findings



Table 1.1 Differences between Qualitative and Quantitative research

Table 1.1 Types of research studies from the perspective of objectives

Examples	Aim	Main theme	Type of research
<ul style="list-style-type: none"> • Socioeconomic characteristics of residents of a community • Attitudes of students towards quality of teaching • Types of service provided by an agency • Needs of a community • Sale of a product • Attitudes of nurses towards death and dying • Attitudes of workers towards management • Number of people living in a community • Problems faced by new immigrants • Extent of occupational mobility among immigrants • Consumers' likes and dislikes with regard to a product • Effects of living in a house with domestic violence • Strategies put in place by a company to increase productivity of workers 	<p>To describe what is prevalent regarding:</p> <ul style="list-style-type: none"> • a group of people • a community • a phenomenon • a situation • a programme • an outcome 	To describe what is prevalent	Descriptive research
<ul style="list-style-type: none"> • Impact of a programme • Relationship between stressful living and incidence of heart attacks • Impact of technology on employment • Impact of maternal and child health services on infant mortality • Effectiveness of a marriage counselling service on extent of marital problems • Impact of an advertising campaign on sale of a product • Impact of incentives on productivity of workers • Effectiveness of an immunisation programme in controlling infectious disease 	<p>To establish or explore:</p> <ul style="list-style-type: none"> • a relationship • an association • an interdependence 	To ascertain if there is a relationship	Correlational research
<ul style="list-style-type: none"> • Why does stressful living result in heart attacks? • How does technology create unemployment/employment? • How do maternal and child health services affect infant mortality? • Why do some people have a positive attitude towards an issue while others do not? • Why does a particular intervention work for some people and not for others? • Why do some people use a product while others do not? • Why do some people migrate to another country while others do not? • Why do some people adopt a programme while others do not? 	<p>To explain:</p> <ul style="list-style-type: none"> • why a relationship, association or interdependence exists • why a particular event occurs 	To explain why the relationship is formed	Explanatory research



Figure 2.2 The research journey

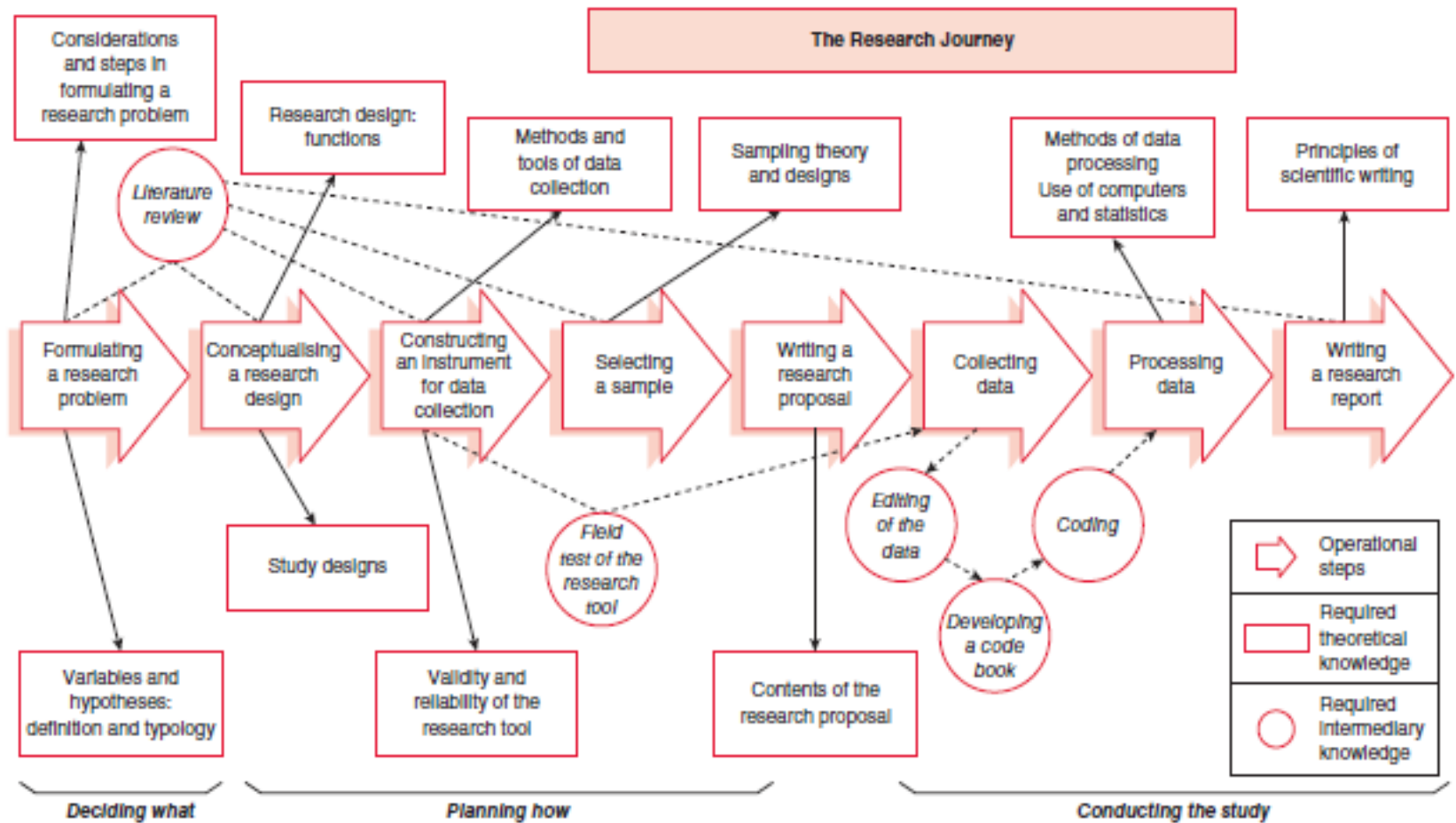


Figure 2.2 The research process



Phase I: DECIDING what to do

Step I: Formulating a research problem

- Most important step, because the following steps are influenced by the research problem
- *What* do you want to find out *about*?
 - Have you got sufficient funds to do the research?
 - Have you got the time available to conduct the study?
 - Have you got knowledge of relevant disciplines?
 - Do you have sufficient knowledge of skills needed?



Phase II: PLANNING a research study

Step II: Conceptualising a research design

What you find depends on how it was found

- Select an appropriate research design:
 - Quantitative
 - Qualitative
 - Mixed methods
- The design has to be
 - Valid
 - Workable
 - Manageable
- Be aware of its strengths and weaknesses



Phase II: PLANNING - continued

Step III: Constructing an instrument for data collection

How will you collect your data?

- Construct a research instrument or research tool to collect data (interview schedules, questionnaires, notes on observations, diaries, interview guides, etc.)
- Or use secondary data (information already collected for other purposes)
- Do a pre-testing of your research tool (pilot study)



Phase II: PLANNING – continued

Step IV: Selecting a sample

Who will take part in your research?

- Select appropriate sample/participants to represent the study population
- Avoid bias
- Random / probability samples
- Non-random / non probability samples
- Be aware of strengths and weaknesses of different sampling methods



Phase II: PLANNING - continued

Step V: Writing a research proposal

Write a detailed plan about your research:

- *What* are you proposing to do?
- *How* you plan to proceed?
- *Why* you select the proposed strategy?



Phase III: CONDUCTING a research study

Step VI: Collecting data

Doing the data gathering using one or more data collection method, such as:

- conducting interviews
- mailing out questionnaires
- conducting nominal/focus groups discussions
- making an observation

Be aware of ethical issues!



Phase III: CONDUCTING - continued

Step VII: Processing and displaying data

What did you find how?

- Analysing the data depends on the *type* of information and *how* to communicate the findings
- Distinguish between
 - Descriptive
 - Quantitative (statistical procedures)
 - Qualitative (narrative, content analysis)
 - Attitudinal



Phase III: CONDUCTING - continued

Step VIII: Writing a research report

What have you done? *What conclusions* have you drawn from the findings?

- Different format for quantitative and qualitative research
- Structure using main themes of study
- Use academic conventions

