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## THIS CHAPTER COVERS THE FOLLOWING TOPICS

- Developing a sound research question.
- Finding appropriate and feasible ways of measuring key concepts in your research question.
- Matching your overall research goals to specific research methods.
- Anticipating and avoiding obstacles in your data collection, analysis and write-up.
- Deciding between qualitative, quantitative and 'mixed' methods research approaches.
- Choosing whether to use a cross-sectional or longitudinal research design.
- Selecting a research strategy, if appropriate.
- Planning and organizing your time to successfully complete your project.

## 1 • 1 INTRODUCTION

As you begin your research, you face many decisions. To achieve your research objectives, you need a roadmap to keep you on a feasible and appropriate path – this is your **research design**. Your research design is the plan you develop to identify the methods and procedures you'll use throughout your research project. This design will help you anticipate and navigate risks and uncertainties in a systematic and rigorous manner. A good research design gives you the best chance of successfully achieving your research objective: a completed report that effectively addresses your research question(s). In this chapter, we first identify the early decisions you need to make in order to develop a good **research question** to guide your research decisions. We then help you pinpoint precisely what you will measure and what research approach would be most suitable for your project.

## 1 • 2 GET STARTED ON RESEARCH DESIGN

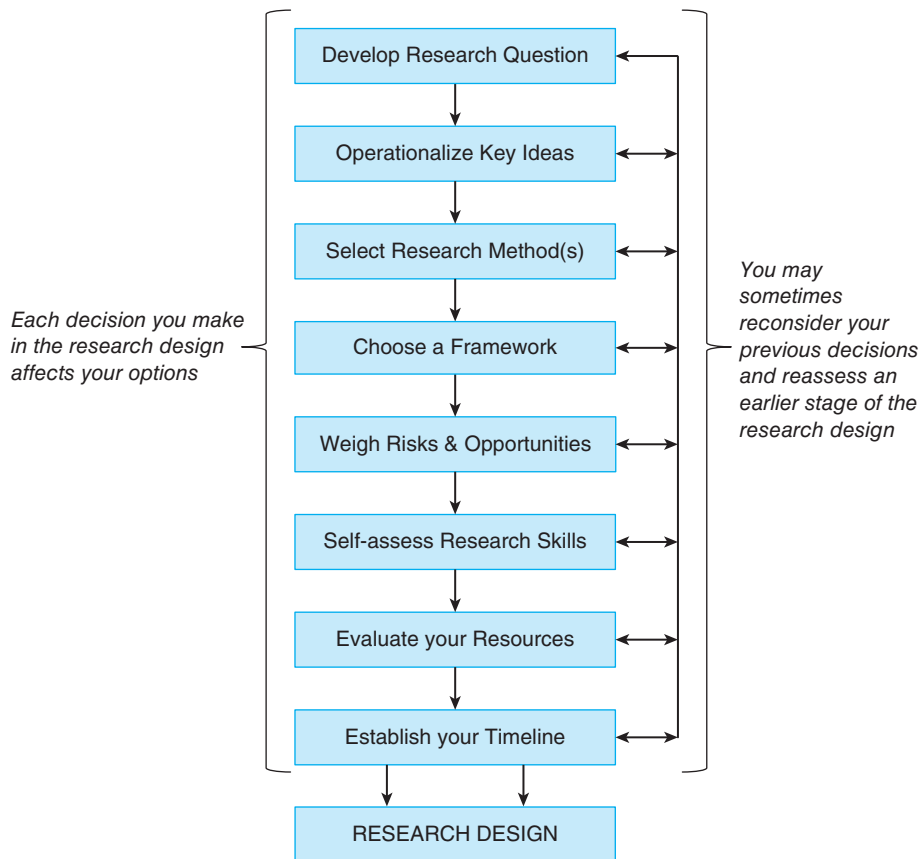
### 1 • 2 • 1 BEGIN PLANNING BY LOOKING AT THE ROAD AHEAD

Crafting an appropriate research design involves matching the research goals motivating your study with methods for meeting those goals. For example, you might decide that the goal of understanding a social problem such as homelessness is best addressed through an ethnographic study, that is, observing and interviewing homeless people in their own environment. As your research design develops, you need to choose what kind of data to collect, from whom, in what setting and with which methods. This process rarely involves drawing a straight line from general idea to detailed plan. You are likely to adjust your research design to accommodate new information, face obstacles to your initial ideas and rethink some of your assumptions. Figure 1.1 illustrates the planning and decision-making process involved in research design.

As you develop your research design, remember that there is rarely one 'right' way to conduct a study. There will be a range of options, each involving trade-offs of some kind. Always document and justify the decisions you make along the way.

In Chapter 10 we show you how to track your decision-making by documenting the issues you face, options you consider and ultimately what choices you make and why.





**Figure 1.1** Developing your research design

Keeping a ‘research diary’ establishes an audit trail for your thought process as it develops along your research journey. A decision may seem obvious at the time, but it’s easy to forget your reasoning later.

### KEY TIPS



#### Crafting a research design is an ongoing process

You are unlikely to create a robust and defensible research design on your first attempt. More realistically, aim to start with a solid - but not necessarily perfect - research question. Then, as you move through the research design phases and encounter barriers or opportunities, you can double back and adjust your research question or other aspects of your research design. For most researchers this process is ongoing and carries on into the initial data collection phase. So your research design is only truly complete when you’ve finished the research. Consider this ongoing process of adjusting your research question or design, exploiting opportunities and circumventing

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problems not as ‘correcting mistakes’ but rather as a natural part of the research design process. It is important to remain open to new ideas and innovations throughout this process, while also keeping your project focused.

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## 1•2•2 YOUR RESEARCH QUESTION IS YOUR FOUNDATION

Your research question governs all components of your research project. It defines what data you collect and how you analyse them. It also needs to be both feasible and worthy of academic attention. Consider the following points when crafting your research question:

- What are you looking to find out?
- What are your key explanatory (‘independent’) and outcome (‘dependent’) variables?
- What information do you need to answer your research question?
- Will it be feasible to gather the data required to answer your research question in the time you have available? If ‘no’, you probably need to narrow or change your research topic.
- Does the answer to your research question offer useful insights that contribute to your field of study?
- Would your research results add to established knowledge by shedding light on a new or under-researched dimension of the topic?
- Would your research results help develop theory or shed new light on an existing theory?
- Is your question too broad, possibly leading you into an impossibly open-ended study?  
Remember, it is nearly impossible to have a research question that is too focused!

Developing a tightly focused, answerable research question is the crucial first step in the research design process and will be the foundation of your project. A poorly formulated question may result in a research project that is hopelessly broad and potentially unachievable within your budgetary and time constraints. By contrast, a carefully crafted question will enable you to focus your efforts, thereby putting you on a good track. Once you have your research question honed, you will build the rest of your project around it. Even as you develop your project around your initial research question, it is normal to use new ideas and information to refine your research question and focus further.

### FIND AN APPROPRIATE RESEARCH TOPIC

Developing a good research question requires selecting a workable research topic. If you’re already clear on your interests and the direction you wish to take your research, that’s great. Some of the best research is driven by a strong personal interest. This interest can help you persist through challenges that you may face during the research process. Your topic should be important and vivid: ‘Anything can be cocooned by studies and theories, but something beautiful emerges only if there lies, in its center, something alive’ (Gray & Wegner, 2013, p. 550). However, it’s important to ensure that your topic is of general interest in your academic field. Does it address an important theoretical concept, for example, or could it open up new avenues or areas for research? Interesting topics are often those that pursue unexpected angles or that



may achieve surprising outcomes. A good test to evaluate your idea is to imagine the best and most surprising outcome possible, and think about whether this would be interesting (Gray & Wegner, 2013, p. 550). Toiling away on a subject that motivates you but is of limited interest to your field can undermine the value of your efforts and make securing funding, research participation and a positive outcome from your project difficult.

The following are key strategies to help you determine whether the research topic you're considering has relevance and value in your field:

- Thoroughly **explore the topic in existing academic literature**. Who is studying it and in what academic disciplines? This can indicate whether there is an academic audience for your topic in your discipline. Many journal articles include in their final section a discussion of 'directions for future research', which highlight unanswered research topics within the scope of that study. Finding any such discussion on your topic can help point you towards fruitful avenues of exploration.
- Evaluate whether **you are in a particularly good position to conduct research on the topic**. For example, if you have special access or a background that will make the topic easier to explore, this weighs in favour of selecting the topic.
- **Discuss your potential ideas with your supervisor, colleagues and other academics**. This process is particularly useful because you can gain insights and guidance from seasoned researchers who can recognize hidden pitfalls in your proposed research topic.
- Are there any **upcoming events** (e.g., elections, investigations, or likely discoveries) **that may affect the relevance and research interest** in your topic? Time-limited events can create a unique opportunity for conducting valuable research.
- Is there something about the topic **that appears to generate particular interest for your academic discipline's core concerns**? For example, in sociology a topic relating to societal inequality or to gender or ethnic discrimination is likely to find an interested audience.

However, you also need to remember through this process that if there are many researchers working on your specific topic already, this may cause problems. You may have difficulty finding a niche to research and your topic may be seen as being less original. Consider the advice: 'As soon as you find yourself surrounded by others, consider seeking out the dangerous freedom of the unexamined' (Gray & Wegner, 2013, p. 551).

## REAL WORLD EXAMPLE



### Finding a good topic in the Olympic Games

Allison wanted to do a research project on how the Olympic Games were planned. This was an attractive topic because the Olympics generate considerable public and media interest. Also, she was offered privileged access to key event organizers and decision-makers. But it was when Allison found an interesting theoretical angle that she knew she had a viable research topic. She

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decided to focus on how institutional memory is transferred from one decision-making body to another. She could address this topic by focusing on the Olympics organizing committee's processes for communicating its institutional knowledge to the subsequent organizing committee. For example, Allison studied how officials from the 2010 Vancouver games transferred knowledge to the organizers of the 2014 games in Sochi. The theoretical angle focusing on the transmission of institutional memory helped her refine her research question so that it would interest both academic and non-academic audiences. As is often the case, the key idea to use institutional memory as her theoretical focus only emerged once her project was already under way, thus requiring her to circle back and refine her research question.

### CRAFT YOUR RESEARCH QUESTION

Your research question defines the key issues you are investigating in your project. The points in Table 1.1 will help you craft a good research question.

**Table 1.1** Principles to guide research question development

<b>Target the research gap</b>	<b>Aim your research question at a gap in the existing research literature</b> that you can demonstrate to your readers.
<b>Keep it narrow and specific</b>	<b>Your research question must be 'answerable'.</b> A narrow and specific research question means you are creating a manageable and feasible research task for yourself. A focused research question with clear boundaries can save time and resources by limiting wasted efforts.
<b>Be analytical</b>	The question should <b>demonstrate more than mere description</b> in order to contribute to general knowledge about your topic.
<b>Be clear and brief</b>	Maintain maximum clarity by ensuring <b>your research question is clear, focused and easy to understand.</b> Your question should simply and briefly communicate the key information about what variables you will be exploring.



#### REAL WORLD EXAMPLE

##### Keep your research question narrow

Don't fall into the trap of thinking that choosing a broad research topic is necessary to demonstrate ambition or to do justice to the research topic. For example, Sizwe wanted to do in-depth **qualitative research** on different worker subcultures in South Africa's gold mines for his doctorate and initially proposed studying five different mines. When he mapped out how much data he would end up with if he did this, it became clear that such extensive data collection would generate far more data than he would have time to analyse. While he could have opted for a less in-depth form of data collection such as quantitative survey research, he didn't feel this would allow him to get the level of detail he needed to answer his research question.

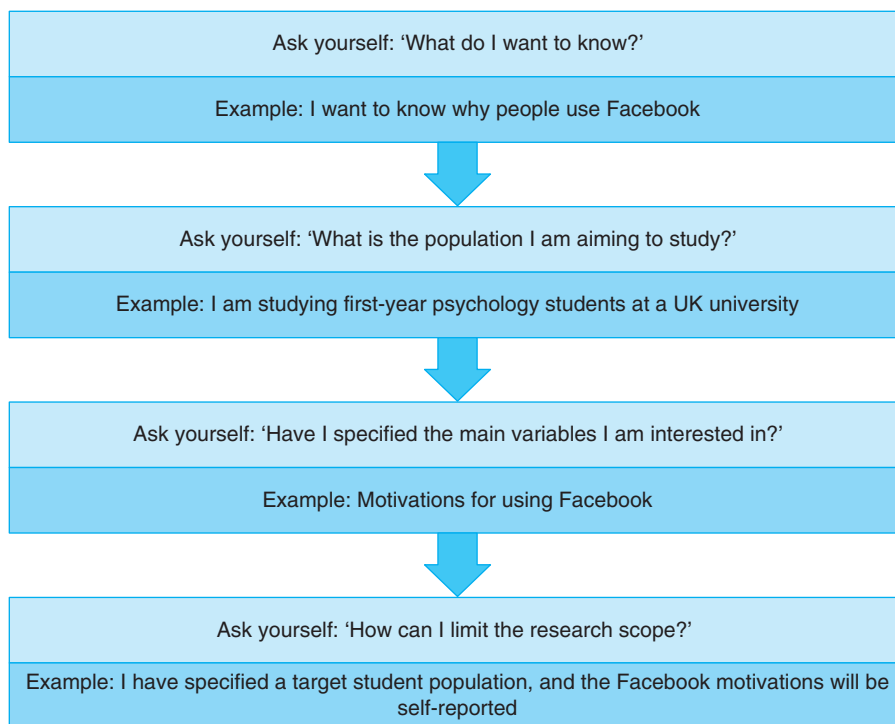


Therefore, Sizwe decided to focus his efforts on just one mine. This focus still provided more than enough data for Sizwe's research and allowed him to delve deeply, rather than spreading his effort thinly. You are likely to find a similar pattern: a narrow focus can still yield plenty of data for your project.

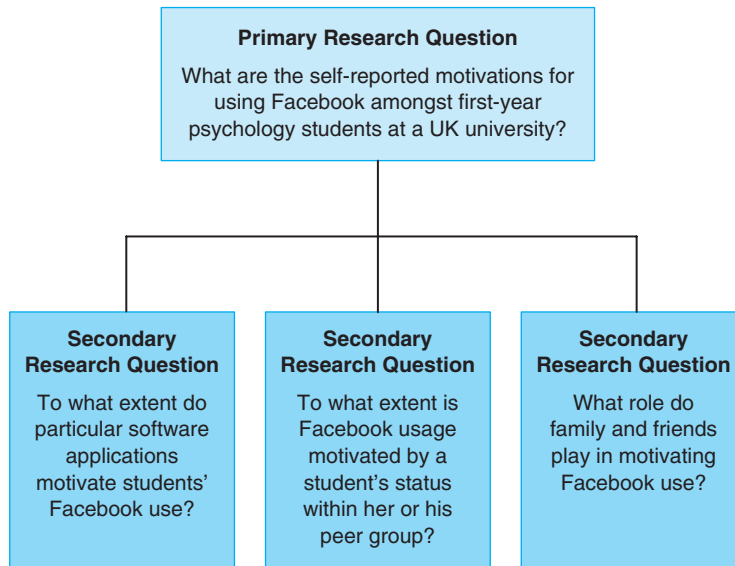
You must be able to demonstrate that you can plausibly answer the research question with the data you are planning to collect. For example, consider the research question: 'Why do young people use Facebook?' If you only collect survey data from students in your class, you wouldn't really be addressing this large question. Instead, you would need a more focused research question. A sample of students in one university department could address a more specific question, such as: 'What are the self-reported motivations for using Facebook amongst first-year psychology students at a UK university?' Ask yourself the questions in Figure 1.2 as you devise your research question to ensure you have included the necessary elements.

### USE SUB-QUESTIONS TO CLARIFY YOUR RESEARCH FOCUS

A clear and focused definition of your research question also enables your readers to quickly understand what you are setting out to achieve. However, a single research question may not fully encompass the different dimensions you wish to explore. The particular aspects of your



**Figure 1.2** Questions to help craft your research question



**Figure 1.3** Developing sub-questions

topic that you will address can be spelled out in more detail by using sub-questions. Once identified, these sub-questions provide direction and structure for your research. Figure 1.3 provides examples of sub-questions using the Facebook example.



**KEY TIPS**

**Let your research question be your guide**

It is easy to drift off course as your research project unfolds. Some diversions from your original research question will be necessary if, for instance, your planned participants refuse to be interviewed. However, you may also be drawn towards new, non-essential questions or interests that distract you. Following such distractions can cause you to stretch beyond the original scope of your project, thus making it harder to achieve your research goals on time and within budget. Commit a lot of time and effort to crafting your research question and then regularly refer back to it to ensure you remain on course in the face of enticing distractions.

**1 3 OPERATIONALIZE YOUR KEY RESEARCH CONCEPTS**

After establishing your research question, start considering how you could measure its key concepts. Some concepts are easy to measure. For example, you can measure your participants' gender by asking them to tick a box next to 'male', 'female' or 'other'.





You may need to be creative in devising appropriate and feasible ways of testing other concepts. For example, when Eric needed to measure learning outcomes for children aged 7–15 visiting London Zoo, he decided to have them make drawings of ‘a wildlife habitat and all the plants and animals that live there’ before and after their zoo visits. This process is called **operationalization**.

Operationalization involves establishing a means of measuring an event or phenomenon that isn’t easily or directly measurable. For example, if you are seeking to determine which brands of clothing are popular among web users you can measure this by operationalizing key words entered into websites they visit. If you find that a particular search term is popular, this will give you a good indication of what clothing brands are favoured by online consumers. Effective operationalization helps you develop your plans by establishing precisely what procedures and materials are required for your project.

## REAL WORLD EXAMPLE



### Measuring student satisfaction with university housing

Paulina wanted to evaluate how satisfied fellow undergraduate students were with their university accommodation. In order to capture - to operationalize - the range of student perceptions, Paulina decided to use a Likert-type scale to operationalize student satisfaction. She listed different aspects of university accommodation such as common areas, kitchen facilities and laundry, and provided five possible options: 1, very unsatisfied; 2, unsatisfied; 3, neutral; 4, satisfied; 5, very satisfied. This allowed Paulina to translate students’ satisfaction with their accommodation into a scale that could be analysed statistically.

## 1•3•1 CHOOSE BETWEEN QUANTITATIVE, QUALITATIVE AND MIXED METHODS APPROACHES

Your research question will orient you towards a particular research approach: quantitative, qualitative or a combination of the two called ‘**mixed methods**’. It isn’t always obvious which approach you should choose. This subsection will help you make this decision.

### TRADITIONAL QUALITATIVE RESEARCH APPROACH

Qualitative methods involve data that are not numerical. Qualitative research is generally inductive, which means that it starts with data collection, then progresses to create theory or generate explanations. Qualitative research often aims to establish a new understanding of a previously under-researched topic, develop a preliminary theory or model and/or discover processes in human interactions.

Qualitative methods can have a number of strengths and weaknesses you should be aware of (see Table 1.2).

**Table 1.2** Strengths and weaknesses of qualitative research

<b>Strengths</b>	<i>Emergent research design</i>	What you learn during data collection can influence your research design. This allows you the flexibility to make adjustments as your research unfolds.
	<i>Exploration and theory development</i>	Qualitative methods are useful as the first step in understanding ideas, perspectives and phenomena, especially when there is little existing research on the topic. Can be great for developing theoretical explanations that account for key processes and context.
	<i>In-depth understanding</i>	Qualitative research can enable deeper understanding of individuals' contexts, perspectives and experiences because you typically take more time with each participant. This can make qualitative methods uniquely effective at finding good explanations for quantitative findings.
<b>Weaknesses</b>	<i>Lack of breadth</i>	Emphasizing depth takes time away from gathering data from a larger number of people or organizations. Be alert to the risk of missing key perspectives because you didn't have time or resources to collect data from everyone who could have made a useful contribution.
	<i>Time-consuming</i>	Qualitative research can generate an enormous amount data (e.g., 10 minutes of recorded interviewing could take an hour to transcribe and be 15+ pages long). This can increase the cost and time required to prepare your data for analysis.
	<i>Limited ability to generalize about population characteristics</i>	Because you may be missing key perspectives if you have a small, possibly unrepresentative sample, it's hard to know whether your participants' characteristics apply more broadly.

### TRADITIONAL QUANTITATIVE RESEARCH APPROACH

Quantitative methods are based on numerical data and are typically used to answer numerical questions: How many? What proportion? What is the statistical relationship between two variables?

**Quantitative research** can have numerous strengths, which help to explain its widespread use in public policy, business and academic research. However, it brings important potential limitations that you should be aware of when selecting the most suitable approach for your research (see Table 1.3).

### MIXED METHODS RESEARCH APPROACH

A *mixed methods* approach to research design 'accepts that quantitative, qualitative, and mixed research are all superior under different circumstances and it is the researcher's task to make the decision about which research approach ... should be used in a specific study' (Johnson & Onwuegbuzie, 2004, pp. 22–23). Of course, more methods do not necessarily improve a

**Table 1.3** Strengths and weaknesses of quantitative research

<b>Strengths</b>	<i>Easy to generalize results</i>	Quantitative approaches can be very appealing because they provide clear answers using methods designed with generalization as a goal. You can use statistical analysis to identify patterns that apply at the level of entire populations. Moreover, quantitative research can be used to predict the probability of a behaviour or other outcome occurring, given certain conditions.
	<i>Large scale</i>	Quantitative studies can make collecting data from large numbers of people more feasible. This can give you greater confidence that your results are not biased because of who you spoke with.
	<i>Statistical analysis</i>	Quantitative approaches can employ complex analysis that can identify subtle statistical patterns in the data. The use of statistics enables quantitative social scientists to benefit from scholarship in mathematics and statistics to develop more sophisticated analyses.
	<i>Visualizations</i>	Quantitative data easily translates into charts and graphs to illustrate your argument. Some audiences find such charts more persuasive than quotations on PowerPoint presentations and in reports.
<b>Weaknesses</b>	<i>Loss of depth and context</i>	While quantitative research can offer insights that are accurate at the population level, individual-level patterns can be obscured (Wagoner & Jensen, 2014). Moreover, important contextual factors may be neglected because the researcher is not immersed in the field or engaged in open discussion with participants.
	<i>Limitations in accuracy</i>	Quantitative research can suffer from lower levels of accuracy than qualitative methods for reasons such as limited depth of measurement or respondents not fully understanding or engaging with survey questions.
	<i>Disconnected from the real world</i>	Operationalizing concepts and turning them into survey questions can create measures that are too far removed from the real-world phenomenon you are trying to study.

research project. If you choose to use multiple methods, you must have a clear rationale for why this is the best approach for your project.

Mixed methods expert David Morgan (2013) identifies at least three reasons for combining research methods:

- 1 Convergent findings about research topic.** Qualitative and quantitative methods can be used to address the same research question. If the different research methods yield similar results, you can have greater certainty in your findings. This motivation is also known as triangulation or cross-validation.

For instance, a research project evaluating racial bias in police ‘stop and search’ practices could include a quantitative analysis of how many times individuals of different races are stopped and searched. This could be supplemented by qualitative research in which

## 14 LAYING THE FOUNDATIONS

police are interviewed about who they selected for search and why. If both forms of data pointed to racial bias, then the researcher could report this finding with greater confidence. If only one method had been used, the researcher would have to report findings with less certainty.

For example, it may be that the qualitative results in the above example show that police officers genuinely feel they are stopping people for search for legitimate reasons. However, structural factors such as the deployment of police to certain parts of the city or prioritization of certain crimes could be creating quantitative patterns demonstrating racial disparities.

- 2 Additional coverage of topic.** This motivation for combining methods involves assigning each of the selected research methods to address different research goals. This leads to a division of labour in which each method's strengths are matched to separate goals or aspects of the research question within the overall project.

For example, a research project analysing media coverage of a new medical treatment might include quantitative analysis of how often a particular theme is mentioned in news coverage. This could then be supplemented with a qualitative focus group study to explore how doctors and patients are responding to that news coverage. This combination would make for a well-rounded study that addresses both the content and reception of the news coverage.

- 3 Connected contributions to addressing research question.** This motivation links research methods together so one method enhances the effectiveness of another without necessarily overlapping in their coverage. Morgan therefore calls this 'complementary assistance'. The aim of linking the two methods is to use findings from one method to inform your use of another.

For example, when Caroline was conducting research on migrant workers in Arizona she used qualitative interviews of farm workers and government stakeholders to help shape the insights and questions for her subsequent survey of farmers.

It is also possible to mix two qualitative or two quantitative methods in a study. For example, some research questions might be most effectively addressed by combining qualitative interviewing and focus groups.

While combining research methods can be a powerful tool in helping you reach your research objectives, this approach also raises practical challenges. Deciding to combine research methods means you will need to be capable of planning for, gathering, analysing and writing up different kinds of data. This is not necessarily a problem, but you will need to allow time to develop any necessary skills you are currently lacking.

To some extent combining methods can mean 'doubling the work'. In addition to learning multiple approaches, each with their own implicit rules and expectations, you will almost certainly need additional time to undertake the other methods. This can increase your research timeline and thus lead to cost overruns. However, some researchers will scale back each method to compensate for the additional work and the possible negative impacts.

The decision to combine qualitative and quantitative methods should be driven by the value for effectively addressing your research question. Think about how Morgan's three reasons for combining methods might apply in your project. For example, will combining methods help you 'plug a gap' that might otherwise exist in your data? While combining methods is not universally appropriate, it is always worth reflecting on its potential value in your project.

## 1•3•2 CHOOSE BETWEEN A CROSS-SECTIONAL AND A LONGITUDINAL APPROACH

A **cross-sectional** study takes place at a single point in time. For example, public opinion polls take snapshots of public views about issues or events on a specific day, week or other defined point in time. Cross-sectional studies are an appealing option because they can be done at any time for relatively low cost (because only one round of data collection needs to be organized). The downside is that this snapshot may not represent longer-term patterns. For example, support for different political parties may shift over time due to changes in the economy or to major political events such as a corruption scandal.

The **longitudinal** research approach is designed to address the limitations of cross-sectional studies. Longitudinal research tracks changes in variables such as attitudes over time by collecting data from the same individuals on multiple occasions. However, longitudinal studies require a much greater time and resource commitment to keep track of individual respondents and gather data from them on multiple occasions. This greater level of cost may mean that you need a smaller sample size if you choose a longitudinal approach, which increases your vulnerability to participants dropping out because they move away, lose interest, or change contact details and become unreachable.

## 1•3•3 CHOOSE A RESEARCH STRATEGY

Once you have a sense of the research you want to do and the approach you want to use, the next question is whether there is a particular research strategy that applies to your project. Research strategies provide a general orientation for your project by relying on an established structure for your research design. There are many established research strategies. We focus on two here to get you started: action research and evaluation research.

### ACTION RESEARCH

**Action research** is a strategy based on the dual aims of increasing knowledge or understanding, and acting in a practical way based on the newly produced knowledge to affect positive organizational or social change. Greenwood and Levin (2007, p. 2) think of action research as at once a 'research strategy' and a way to 'reform practice' in a given context: 'We view [action research] as a way of working in the field, of utilizing multiple research techniques aimed at enhancing change and generating data for scientific knowledge production.' The relative emphasis within the continuum between these two aims of practical 'action' and social 'research' varies from project to project. Action research is therefore cyclical, continuous and tightly interwoven within the entire research process.

Action research enables the researcher to intervene with the aim of improving a specific system, service, product or outcome, while creating new research knowledge. For example, if you were looking to improve the process of rehousing homeless people by local councils and charities, you could begin by designing an intervention based on the best available theory and research. You could then implement that intervention, evaluate its effectiveness and use that evaluation to inform a new and improved intervention. Interviewing homeless people using the

new process could reveal insights to shape further alterations, continuing the action research project into a new cycle. The following example demonstrates how this cycle can work:

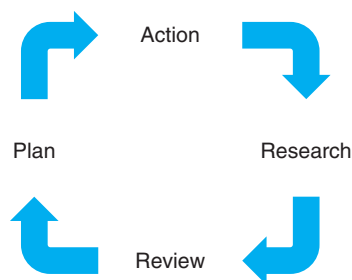
- 1 You develop a prototype website based on the best available theory and research to enable a local community to plan events together.
- 2 To learn more about how effective this website is in practice, you could conduct evaluation research with website users. This research would develop knowledge about how the website is used, and why. For example, this research could reveal how local communities bridge offline and online communications as they mobilize to improve their neighbourhoods. This knowledge would reveal processes and patterns that could be applicable well beyond this specific case.
- 3 At the review stage, the project team takes stock of what has been achieved and learned so far, and what should be done next.
- 4 The knowledge gained from this research then contributes to the plan for future action in the next round of website development, which will be evaluated again and so on (see Figure 1.4). In practice, there will be resource and time limitations that set the end point for this cycle. Most action research projects only go through one or two cycles.

This example demonstrates how the action research cycle can ultimately yield both a refined practical outcome and new social scientific knowledge. The decision about when to stop this cycle is usually a practical one based on available time and resources, or when a satisfactory ‘action’ result has been achieved.

Action research can take different forms. For example, ‘participatory action research’ involves much greater participant involvement in decision-making throughout the research and action process. This type of action research is defined as follows:

- (a) a collective commitment to investigate an issue or problem, (b) a desire to engage in self- and collective reflection to gain clarity about the issue under investigation, (c) a joint decision to engage in individual and/or collective action that leads to a useful solution that benefits the people involved, and (d) the building of alliances between researchers and participants in the planning, implementation, and dissemination of the research process. (McIntyre, 2008, p. 1)

In other action research projects, the researcher will make all of the major decisions using research data and theory to provide guidance.



**Figure 1.4** Action research cycle

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**REAL WORLD EXAMPLE**

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**Action research at the wildlife park**

Durrell Wildlife Park on the island of Jersey was looking to better understand visitors' experiences. To assist, Eric conducted a series of focus groups with different types of public visitors. He analysed what they said about the wildlife park, what they would like from the experience and how the wildlife park could most effectively reach them with messages about wildlife conservation. This was the first 'research' element in the action research cycle.

Eric presented these findings to staff at the Durrell Wildlife Park, working with them to create a change plan that the wildlife park then implemented. This was the 'action', that is, the practical intervention informed by the research. To assess how public visitors would respond to the 'action', Eric conducted another phase of research with another series of focus groups, including some participants from the initial research and some new participants. He analysed participants' views on the changes that had been made, again presenting these results to the wildlife park. The wildlife park used this information to inform new further 'action' to improve the experience and engagement with wildlife conservation messages in the park.

This two-year project finished with Eric's final round of research: a mixed methods survey conducted with the general population of visitors to the wildlife park to evaluate their response to the transformed visitor experience. Crucially, the research elements in this project were used to provide generalized knowledge about wildlife park visitors, public engagement with wildlife conservation and environmental communication. Therefore, the research contributed both to 'action' outcomes (improving the wildlife park) and 'research' outcomes (knowledge that could be applied to other settings and contexts).

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**EVALUATION RESEARCH**

**Evaluation research** focuses on real-life events in social, policy, learning or business contexts. It aims to provide useful knowledge about how and why particular interventions or processes are working or failing in order to inform future decision-making. Scriven (1991, p. 139) explains that evaluation research is the 'process of determining the merit, worth, or value of something, or the product of that process'.

Evaluation research is defined by its focus on assessing whether objectives or intended outcomes have been achieved by a particular intervention or initiative. For example, an evaluation might assess the effectiveness of an intervention designed to improve childhood obesity rates by restricting junk food advertisements in children's TV programmes. Chelimsky (1997, p. 9) points out the enormous breadth of topics that could be addressed with an evaluation research strategy:

to measure and account for the results of public policies and programs; to determine the efficiency of programs, projects, and their component processes; to gain explanatory insights into social and other public problems and into past and present efforts to address them; to understand how organizations learn; to strengthen institutions and improve managerial performance; to increase agency responsiveness to the public; to reform governments through the free flow of evaluative information; and to

expand results or efficiency measurement from that of local or national interventions to that of global interventions such as reducing poverty and hunger or reversing patterns of environmental degradation.

The effectiveness of such initiatives can be measured using a range of data collection methods, such as surveys, focus groups or qualitative interviews, but the strategic focus on effectiveness would apply in all cases.

Like action research, an evaluation research strategy can take many different forms. Indeed, many evaluation models have been articulated; for example, 'utilization-focused evaluation' (Patton, 1997) focuses on what will be most useful to the end user of the evaluation. The specifics of the different evaluation models are beyond the scope of this book. If you decide to use an evaluation research strategy, we recommend that you consult one of the evaluation methods books in the 'further reading' section at the end of this chapter.



## REAL WORLD EXAMPLE

### Evaluation of a programme to reduce alcohol consumption

Lena wanted to evaluate whether a health organization's binge drinking reduction programme was achieving its goals. The programme's objectives were to reduce the volume of alcohol consumed by 18-20-year-old college students over a six-month period, reduce the frequency of binge drinking episodes, and raise awareness of the health risks associated with excessive alcohol consumption.

Lena used a mixed methods approach to shed light on the programme. She operationalized the term 'binge drinking' by using a standard measure: the consumption of five or more drinks in a row for men and four or more drinks in a row for women. The organization funding the programme had no specific demographic focus other than 18-20-year-old college students, so Lena selected a probability sample of 354 students (49.2 per cent male) at a university in Pennsylvania where the programme was operating. She arranged for a pre-survey of this sample of students in their first week of university and a post-survey in the last week of their first term using a Likert scale to understand how much alcohol students were consuming and how often. She then interviewed students during the first and last weeks of their term to understand whether awareness of health risks associated with excessive drinking had changed.

With this approach Lena was able to test whether the organization's aims were being achieved. The organization was then able to use her data to inform them about what kinds of approaches were proving successful and which needed to be changed in order to bring about the desired change in student behaviour.

## 1•3•4 EVALUATE YOUR PROJECT'S LIMITATIONS AND OPPORTUNITIES

Good research planning requires you to realistically assess the strengths and weaknesses of your research options as well as your capabilities as a researcher. Particular challenges may arise as you develop your research design; data may be hard to find, difficult to access or challenging to analyse. For example, if you are studying socially undesirable behaviour, such as



prostitution, can you access respondents and are they willing to participate? There may also be complex legal implications for such a project. On the other hand, you may have major research opportunities, such as locating previously unknown documentation, receiving privileged access to an institution or finding a good ‘inside’ source that offers ground-breaking insights into your topic.

Look ahead to identify potential difficulties with your data collection and analysis plans. What aspects of your data sources or collection plans are unpredictable or uncertain (e.g., in terms of quality or availability)? Table 1.4 outlines areas of your research design that will benefit from advanced planning and detailed evaluation of your research capabilities.

**Table 1.4** Anticipate your research needs

#### Approval and access

- Do you need approval from a government or major institution to access certain archives, participants (e.g., members of a group or institution) or other data sources? The uncertainty here could apply to both the initial granting of access and its possible withdrawal during your project.
- Are you relying on one person or organization to provide all your data?
- Are you assuming that a key gatekeeper will be appointed to a certain post, get permissions from their superiors, or remain cooperative in assisting you?

#### *Ways to address these issues*

- **Start seeking approval and access early** in your research process. Don't be waylaid by non-responses or administrative procedures. Be polite but persistent in ascertaining whether approval will or will not be granted.
- Wherever possible, **avoid hinging your research on one person or data source.**
- Try to **gain interest and approval from multiple stakeholders** who can approve your access to key archives, participants or other data sources.
- Seek out **backup or alternative sources of key data.** Even if your alternative sources are not ideal, other sources are worth having in case your first choice becomes unavailable. For example, you may want to interview US senators but find that they don't easily commit to interviews. Think about other legislators who - while not your ideal choice - can provide sufficient data for your research.

#### Budget

- Does your funding or sponsorship come with constraints about who, where, or what you can research, and with which ethical procedures?
- Are your resources sufficient for the scope of research you are envisioning?

#### *Ways to address these issues*

- **Before you seek and receive funding, clearly understand terms and restrictions** from any funding providers. Account for these in your research design.
- **Establish and frequently update a budget.** This budget should be sufficiently detailed to provide a clear sense of your project costs. It should account for the various expenditures and support needs involved in your project such as compensating participants for travel costs, help with data entry or translation and any equipment you may need.
- **Take action to ensure your available budget will cover your anticipated costs.** Start seeking additional funding early on for any shortfall. Don't wait until you have nearly run out of funds or your entire project may be jeopardized. Alternatively, you can cut the scope of your project to fit your budget.

(Continued)

Table 1.4 (Continued)

**Timeline**

- Are key aspects of your research relying on the successful completion of preceding tasks? For example, do you need to complete part of your research before a key gatekeeper changes jobs?
- If you are an international student or planning foreign travel, do you have visa or passport requirements that might take several months to resolve?
- Are you assuming that events beyond your control will occur, such as a particular election result? What is your contingency plan if this doesn't occur?

*Ways to address these issues*

- **Establish a detailed timeline** (see Section 1.4) which includes all your major project milestones and objectives.
- **Update your timeline** to reflect completed milestones, changing dates and shifting research requirements.

**Research skills**

- Are you considering a project that requires higher levels of skill than you currently possess? For example, if your proposed research requires a statistical test you are unfamiliar with, you will need to plan time for the relevant statistics training or tutorial support.

*Ways to address these issues*

- **Be realistic and frank about what new skills you may need to develop.** Speak to your supervisor, colleagues and others who have undertaken similar research. Seek advice on what additional expertise you may require and at what stages in your research you will need these skills.
- **Plan additional training early but when it is most useful in your research.** If you are doing a particular statistical test in two years' time, it probably makes sense to do the training closer to when you will be applying your new skills.
- **Factor any additional training into your timeline and include any associated costs in your budget planning.**

**KEY TIPS****Rely on your existing research skills to shape your research focus when short of time**

We argue in this chapter that you should not start with a research method, but rather you should arrive at the method after considering how best to address your research question. However, you may find yourself in a situation where you have only developed skills in one or two data collection or analysis methods (or more rarely, that a client commissioning research pre-specifies research methods).

If you don't have the time to develop additional skills, you will realistically need to rely on the method(s) you can competently use. What aspect of your topic can you address effectively using your current skills? In other words, what skills do you currently possess and how best can your research question be addressed using these skills?

To do this, refer to the chapters on data collection and analysis, which discuss each method's relative strengths and weaknesses. Choose a research question within your general area of interest that uses the strengths of the method(s) you're committed to using. For example, if your method is qualitative interviewing, your research question should probably seek to understand individuals' perspectives on a topic.

Once you've scrutinized your plans for possible challenges, you can prepare for them and maximize opportunities. Ensure you prepare before undertaking data collection; don't just hope you will find solutions as you go. The steps required for your project will depend on the specific issues you're facing, but solutions will include:

- **Have a backup plan for sourcing alternative data.** Rank your ideal data sources on a hierarchy. How reliable is each source and what challenges (e.g., timeline constraints or the granting of permission) do you need to consider? Establish second and third backup options in case your ideal source is unavailable. For example, if your ideal source is the Vice President of Technology for Google (who may deny you access), who else at Google could provide useful data? Could someone at another technology company provide the information you need? Could you use any publically available sources if all access channels are denied?

While such contingency planning is important, do remember that using alternative data sources may also require you to adjust your research question or other aspects of your research project. The best alternative data sources require minimal such adjustments.

- **Have a realistic timeline when dealing with challenging data.** The more challenging the data (e.g., unreliable sources, poor-quality data), the more time needed to contend with the various challenges that could arise.

## REAL WORLD EXAMPLE



### Have a backup plan for an alternative data source

Javier was researching the influence of employees' ethnicity in the performance appraisal process in a government department. He wrote letters in advance and was surprised at the good cooperation and access to confidential departmental information he was given. Initially he was elated at the unique and privileged data this access provided. Because Javier's access appeared to be so certain and the data so interesting, he didn't 'waste time' finding backup sources.

Four months into his seven-month project, a departmental lawyer heard about Javier's project. Citing confidentiality concerns, the lawyer immediately blocked Javier from conducting further research. Because he did not have approval in writing to use the data, the lawyer was also able to block his use of the information he had already collected. Without alternative data sources, Javier had no means of continuing his project, which he was over halfway through. Javier sought an extension to his deadline and didn't complete the project in time with his classmates.

Having a backup data source, even if it would be an inferior option, is preferable to having no data and needing to start again from scratch. Javier could also have been more diligent in seeking broad, written consent from departmental leaders indicating their willingness to provide access. Your data collection plan is more vulnerable if it relies on one person (who could suddenly leave the organization) than if multiple stakeholders have given approval in writing.

## 1 4 MANAGE YOUR TIME IN THE RESEARCH DESIGN PROCESS

Now that we've walked you through the core components of developing your research design, let's think more deeply about the unifying element for your research: your timeline.



Establishing a detailed and realistic timeline is essential to meeting deadlines without making drastic last-minute changes to your research project. Your timeline also helps you determine the feasibility of your research plan. It's easier and more efficient to remove part of your planned research early in your project than to complete work that later becomes unusable. For example, if you only had time to analyse five of the 10 qualitative interviews you conducted, you would have wasted both your and your participants' time. Inexperienced researchers tend to underestimate – sometimes severely – the time necessary to complete a project, so be detailed and conservative with your time estimates. Moreover, it can be particularly helpful to get feedback on your planned timeline from an experienced researcher.



### REAL WORLD EXAMPLE

#### Narrow your research scope early on

When Eric wrote his PhD proposal he wanted to research science journalists and their reporting on the scientific controversy surrounding therapeutic cloning in the United States, the United Kingdom and New Zealand. However, after drawing up a research timeline Eric realized that it wouldn't be feasible to conduct in-depth research in all three countries. Therefore, he decided to remove New Zealand because it required the greatest travel costs in order to carry out face-to-face data collection. In addition, he already had some understanding of the US and UK policy and media context for his topic, so he also saved the time required to develop this knowledge about New Zealand. This was also an easy way to reduce the scope and therefore the size of his research project, which had downstream benefits in terms of reducing the amount of data he had to analyse. He also decided to conduct about half of his qualitative interviews over the phone to further save costs (focusing his face-to-face interviews on the geographical areas he could most easily reach). The phone interviews were successful, but he wanted to conduct some of the interviews on-site at news organizations in the US and UK to see for himself the context in which science journalists operate. If he didn't have the funding to do this, he could have also used online options such as Skype, Google Hangout or FaceTime to conduct video interviews.

## 1•4•1 AVOID TIME-WASTING RESEARCH PRACTICES

While the quality and depth of your research is of course important, make sure you don't get bogged down in time-wasting practices that could throw off your timeline:

- **Keep writing.** Don't do more and more reading instead of getting on with your writing. You could spend years reading all the literature on your topic!
- **Avoid making so many preparations that you don't make substantial progress in your data collection and analysis.** For example, you might spend weeks locating a handful of hard-to-find interview respondents rather than getting on with interviewing your existing sample.
- **Don't collect more data than you have time to analyse.**
- **Avoid collecting data you don't really need,** such as interviews with respondents who, although interesting, may only hold limited value for your research.



It's easy to lose control of your time management. Procrastination often causes this, for example when you can't face a full day of such tedious tasks as transcribing interviews. We therefore recommend that you try to overlap tasks within your timeline; you could begin transcribing while still collecting data collection. Completing the less exciting research tasks in smaller chunks increases the likelihood that you will get on with it! Thinking early on about what each task requires will enable you to create a more effective and achievable timeline.

## 1•4•2 CREATE A TIMELINE FOR YOUR RESEARCH PROJECT

**Begin by creating a timeline**, a chronological list of the tasks required to complete your research on time. Here are the steps to follow when you create your research timeline:

- 1 Determine the **start and end date for your research**.
- 2 Decide on the **time unit you'll use to set targets**. For most projects of three months or longer, weekly units are sufficient. However, if you're working on a short project, consider setting daily goals. Biweekly or monthly intervals can work for projects of a year or longer. Remember that you want your timeline to be specific enough to let you effectively track your progress.
- 3 Decide on the **major phases of your research** and assign timeframes, normally overlapping, for these steps:
  - Proposal writing
  - Research design and planning
  - Literature review
  - Pilot testing
  - Data collection
  - Analysis
  - Write-up.
- 4 Define and **include your major milestones for each phase of your research**. For example, you may have preliminary deadlines to provide your supervisor with survey or interview questions, or to deliver a draft report. Also include milestones such as any required examinations and presentations.
- 5 **Populate your timeline with more detailed goals for each major milestone**. What specific tasks are involved in each major research task? Which tasks need to be completed early or prepared in advance because they depend on other people? For example, you'll need to arrange interviews or focus groups well in advance.
- 6 **Identify forks in the research road**. You could set up checkpoints in your timeline to review and see if a backup 'plan B' is needed.
- 7 After distributing your tasks over your timeline, fully **evaluate whether your time allocations are realistic**, and adjust as necessary. Build some slack into your timeline. Your project is a venture into the research unknown for you, so assume that parts of it will overrun your expected timeframe. An unrealistically tight schedule can make you feel like you're constantly behind.
- 8 Don't forget to **plan holidays and any other inactive periods into your timeline**. Again, be realistic and include planned relaxation breaks from your research, especially when you are working on tedious or emotionally draining content.



## REAL WORLD EXAMPLE

**Being flexible and planning some slack into your timeline**

Making apparently efficient plans that use all available time can end up causing you stress due a lack of flexibility. Duncan was undertaking a research project on how European trade unions are reacting to globalization of the labour market. In an effort to maximize a short research trip to the Netherlands, Duncan arranged interviews and archive visits for the entire time of his trip. However, Duncan's departure was delayed by a day due to food poisoning and there was little he could do to reschedule his planned activities into an even shorter timeframe.

Even with the most carefully planned timelines, things can go wrong and fieldwork can generate all sorts of surprises. Your schedule needs to be flexible enough to deal with unexpected delays.

There are many tools that you can use to prepare your timeline. One option is to use Microsoft Word or Excel (see Table 1.5 for an example). Such layouts are quick and easy to create and don't require you to locate and learn how to use new software. However, this method does not easily allow for the more complex functionality offered by purpose-built timeline software, such as the easy creation, understanding and updating of concurrent timelines. Timelines created in Word or Excel can also get unwieldy if they are long or detailed; imagine following Table 1.5 if it was extended over five years, for example.

You have innovative options for creating timelines and tracking your progress on a calendar using software that is flexible and easily updated. You should create a basic timeline that shows key milestones over the duration of the research project to ensure you've allowed sufficient time for your research tasks.

We recommend using a calendar-based tool that allows you to make the timeline as detailed as needed. Creating automatic reminders in your personal calendar also helps you remain focused on your established milestones. Consider the following software tools:

- **Preceden** allows you to create complex, easily updatable and interactive timelines. Timelines can be in colour and are printable. It is an excellent tool for basic timeline needs. You can currently try this software for free with limited features; there is a fee for the full access version.

**Table 1.5** Sample timeline extract

Week	Major goal	Minor goal	Activity	Status
29 May-5 June	Transcribe interviews	Transcribe interview with Robert Smith	Transcribe interview	Complete
		Transcribe interview with Bill Jones	Transcribe interview	Complete
		Transcribe interview with Chris Stephens	Transcribe interview	Ongoing
6 June-12 June	Begin qualitative coding	Code interview with Robert Smith	First coding pass	Not started

- **Google calendar** gives you access to a free online calendar system that connects to your email account. This enables texts and emails to be sent automatically as reminders.
- **OS X Calendar** is Apple-specific software that tracks events, makes calendar entries and sets basic timeframes for events. It offers a range of reminder options and features. You can create a calendar theme specifically for your research to make it clear, at a glance, when important research-related activities are coming up. This application comes free with OS X.

While the above tools offer the capability to develop and update your timeline, the timeline will only be as good as you make it. Frequently update your timeline as your project develops, and keep to your milestones.

Having both a short-term and long-term view of your research is crucial. Know what you intend to accomplish in the coming days and weeks. This is where calendar software can be particularly useful. But maintaining a wider overview of your research over, for example, monthly or even yearly intervals is crucial to seeing what you have already accomplished and what is yet to be completed. You can annotate your timeline with notes about the decisions you made at key points during your project.

Experienced researchers don't view updating their timelines as an unpleasant 'chore' or something to be done only a few times at the beginning of a project. Instead, consider your timelines as your yardstick for assessing and maintaining your progress, highlighting where adjustments are needed to move forward. In other words, closely attending to your timeline is one of the easiest and most effective ways of keeping your research on track.

## KEY TIPS



### Establishing accurate timelines is a major challenge for researchers

It is easy to be overly ambitious with your deadlines. This problem often stems from your enthusiasm for your project and from the fact that the complexity of some tasks may not be apparent until you start working on them. The general rule for research planning is that everything will take much longer than you think!

Pay particular attention to planning the phases of your project that may be emotionally draining, tedious, repetitive or tiring. For example, transcribing interviews, coding and data entry can be very tiring at the best of times and can be particularly gruelling for poor-quality audio recordings. Your attention may lapse, technical challenges may arise and, for a myriad other reasons, these tasks can therefore take longer than anticipated to complete. The overriding principle is to be realistic with your expected timeframes for key tasks, erring on the side of caution, yet remaining focused and diligent in striving to complete your objectives on time.

## 105 CONCLUSION

This chapter has provided ways for you to develop and maintain a robust research design, narrowing your focus through a series of decisions to arrive at a feasible project plan. Throughout the research process, your research question leads the way. Remember that the purpose of your research design is to 'ensure that the evidence obtained enables [you] to answer



the initial [research] question as unambiguously as possible' (de Vaus, 2001, p. 9). We have identified ways for you to develop a sound research question that will lead you towards feasible and useful research.

You may find you need to reduce the scope of your project along the way. In this case, look for places where you can make a clean cut (a whole section, one out of three comparison cases, etc.) so that you don't create more work by having to edit the section you cut down in size. At the time, cutting down your scope may be hard to accept, but you will be much happier in the long term if you make this decision early on before investing a lot of time and resources in a direction you don't have time to fully develop. By developing and refining your clear and achievable research question, you will keep your research on track as you encounter many interesting paths along your research journey. Your mantra once your project is well under way should be 'stay focused!'.

We have illustrated each step as you develop your research plan with examples from the real world so you can see how others have resolved research design challenges. These examples demonstrate how careful and realistic planning and strategies can keep your project on track. It is important that you avoid the temptation of overlooking research limitations during this planning process. Be honest about them and generate solutions early on; problems are much harder to resolve later in your research project.

Finally, we have offered guidance on how you can develop a comprehensive yet flexible research timeline. We advocate being ruthlessly realistic with your project plans and scope so they reflect what can feasibly be delivered in the available time. Use a software-based approach to create and update your timeline. This approach allows you to focus on the work required to reach specific research objectives each day and week, while enabling you to 'zoom out' and see a monthly or even yearly view of your past and future research journey. Regularly orienting yourself within your timeline is crucial for keeping on course to achieve your research objectives on time and within budget.

## SUGGESTIONS FOR FURTHER READING

- **de Vaus, D. (2001). *Research design in social sciences*. London: Sage.** This book provides a straightforward and helpful introduction to research design, which goes into more detail than is feasible in this chapter. It is one of the best research methods texts available, and is particularly good at helping you work through research dilemmas.
- **Johnson, R. B., & Onwuegbuzie, A. J. (2004). *Mixed methods research: A research paradigm whose time has come*. *Educational Researcher*, 33(7), 14-26.** This article gives a useful overview of 'paradigm' debates in the methodological literature. The authors detail the fundamentals of mixed methods research, and you may find their 'eight-step process' particularly useful.
- **Kelle, U. (2006). *Combining qualitative and quantitative methods in research practice: Purposes and advantages*. *Qualitative Research in Psychology*, 3, 293-311.** This article takes a pragmatic approach to research design by asking fundamental questions such as: What kinds of research questions are qualitative and quantitative methods best able to answer? What are the main strengths and weaknesses of quantitative and qualitative research with respect to particular domains?



- **Morgan, D. L. (2013). *Integrating qualitative and quantitative methods: A pragmatic approach*. London: Sage.** This is the best book on mixed methods research design currently available. It spells out in clear and accessible language why you would want to conduct research using a combination of qualitative and quantitative methods. The book also provides practical guidance about how to justify and structure such research.

### Action Research Strategy

- **Mertler, C. A. (2014). *Action research: Improving schools and empowering educators (4th ed.)*. Thousand Oaks, CA: Sage.** This book gives a good introduction to action research and then takes you through the key stages to completion. You may find the sections on planning for action research and developing a research plan especially useful.
- **Stringer, E. T. (2014). *Action research (4th ed.)*. Thousand Oaks, CA: Sage.** One of the most authoritative and approachable books on action research available. The book guides you through the action research process, illustrating key elements with case studies so you can easily see how to implement the guidance in real situations.

### Evaluation Research Strategy

- **Dane, F. C. (2011). *Evaluating research: Methodology for people who need to read research*. Thousand Oaks, CA: Sage.** This is a systematic and comprehensive book on evaluation that is especially suitable for beginning students and those on master's programmes. The book relies on selected published research articles that provide detailed and illustrative examples.
- **Shaw, I. F., Greene, J. C., & Mark, M. M. (2006). *The SAGE handbook of evaluation*. London: Sage.** This book offers a broad account of evaluation methods, and different approaches to using this research strategy. It features chapters from different authors offering detailed accounts of their favoured strategic approaches to evaluation.

Visit the companion website at <https://study.sagepub.com/jensenandlaurie> to gain access to a wide range of online resources to support your learning, including editable research documents, weblinks, free access SAGE journal articles and book chapters, and flashcards.

## GLOSSARY

**Action research** - A process of research involving an iterative cycle of theory-driven action that is evaluated, with research results feeding into further changes in practice that can then be evaluated. This approach can be conducted by researchers or by practitioners to inform and evaluate improvements in their own settings, for example to benefit outcomes for patients, clients and customers.

**Cross-sectional research** - The analysis of individuals' perspectives at a *specific point in time*; for example, a survey of voter satisfaction with the performance of their national leaders.

**Evaluation research** - A type of social research focusing on the effects of interventions and programmes within social, policy, learning and business contexts. The focus on testing the intended objectives of the intervention distinguishes this type of social research from other approaches.

**Longitudinal research** - The analysis of individuals' perspectives over a period of time. For example, a longitudinal study might follow how a set of children exposed to different childhood traumas develop into adulthood.

**Mixed methods research** - Also referred to as 'combed research methods', this term describes the use of more than one research method in a single research project. This often involves using quantitative and qualitative methods in a coordinated manner to gain from the strengths, while mitigating the weaknesses, of each method.

**Operationalization** - The process of defining how you will measure something (usually an abstract concept).

**Qualitative research** - A category of social research that refers to methods of data collection and analysis that use words, images, observations and other non-numerical data. Major qualitative research methods include focus groups, in-depth interviews and ethnography.

**Quantitative research** - A category of social research that refers to methods of data collection and analysis that use numerical data.

**Research design** - The plan detailing how you will answer your research question(s). Good research design decision-making requires understanding both your range of options and how to evaluate the strengths and weaknesses of each option.

**Research question** - The central question that your research seeks to answer. This question provides the guiding focus for your project.

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