

RESEARCH DESIGN in URBAN PLANNING

A Student's Guide

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THE DESIGN OF PLANNING RESEARCH

Key questions

What is research design?

Why is there an interest in research design? And why bother with it?

How many types of research designs are there? How does research design differ from questions about research strategies and methodologies?

What is well-designed research?

Key concepts

Research design, strategy, methodology

Overview

The starting point for this book, as explained in the Preface, is that when undertaking research for a dissertation it is essential to spend time planning how the research will be conducted – that is, working on a research design – in advance of implementing those decisions. Time spent on research design will have a significant potential payoff in terms of the quality of your final written dissertation or thesis. This chapter addresses a number of introductory issues connected with research design. The first section looks at the concept of

research design: What is a research design? Next I explore the reasons for an interest in research design. Turning to the types of research design, I ask whether there are a limited number of research designs, and, if so, what are these types? What are the differences between research designs, research strategies and research methodologies? Finally, I set out the approach to research design taken in this book and briefly introduce the contents of the remaining chapters in the book

Research design

A research design is generally understood in the literature to be produced in *advance* of the stage when you get down to conducting the research, and it is about planning how the research will be conducted.

Because a design is thought about in advance of the conduct of the research, it sets out provisional decisions on how the research is to be conducted. Such provisional decisions may be recorded in a research proposal which also may be submitted for approval by tutors or supervisors. Blaikie (2000) makes a distinction between a research proposal and a research design with the emphasis on the audience for the documents, with the former being restricted to those documents which are public and which are needed either to gain approval for a project or to obtain funds for a project, the latter being more private documents, restricted perhaps to the researcher and their supervisors or tutors. In both cases, however, the same type of forward planning needs to be undertaken to produce them.

Yin (1989: 28) argued that a research design is about getting from 'here' to 'there' – from a set of research questions at or near the beginning of the research process to 'there' – the end of the process and an answer to those research questions. Now much attention in textbooks on research is given to the different methods of data generation, the choice of structured versus unstructured interviewing, for example, but research design is concerned with much more than the selection of appropriate methods of generation and analysis, important though these decisions are. As Hakim (2000: 2) suggests, it is concerned with 'when and why a particular type of study should be chosen'.

The reason for the interest in research design is essentially that it underpins the trustworthiness of the claims that a researcher makes in a particular study. For example, planning researchers may make claims or come to conclusions about the nature of planning and its practice, or of its social, economic or environmental impacts. A critical evaluation of these claims involves asking about the evidence that has been produced to support them.

There has been much discussion in recent years of the importance of justifying public policies by the evidence (Alasuutari et al., 2008). Gorard (2013) similarly justifies the importance of research design in terms of the practical or policy decisions which might be made on the basis of research, and the unnecessary harm that might be done if research findings are not well-founded. This notion of evidence-based policy has been discussed in the planning literature by Krizek et al. (2009). A number of writers in the policy and planning literature (for example, Fischer 2003; Healey 2007) emphasise the collective judgement which is made by the community of researchers about the plausibility of knowledge claims, though they seek to widen the scope of those who participate in such judgements where evidence is used to inform policy.

Given the importance of the decisions which have to be made, and their implications for the quality of the dissertation you will write, I argue that you should aim to spend something like a third of the time you have available for completing the dissertation to the research design stage.

Types of research design

Some writers on research design take the view that there are only a few standard research designs from which the researcher must choose (Cresswell, 2003; Hakim, 2000; de Vaus, 2001). The approach taken in this book rejects that view. This follows from the fact that in any project a number of design decisions have to be taken, and since these decisions can vary, the consequence is that there could be a large number of possible research designs for any project. However, certain decisions are more important than others. Here I would cite as crucial the decision on the research question to be answered. Research can be seen as a process of asking questions, and trying to answer them. Research questions have, perhaps, not been given the attention they deserve by planning students thinking about small-scale research. Research questions are important because they provide a focus and a direction to research, influencing the other design decisions which you make, from identifying the type of data you need to answer your question to the best way of going about getting it. It follows that one of the most important stages in research design is moving from the initial ideas you have about the topic and the issue you want to investigate to an appropriate research question.

Another key consideration in research design is the assumption that you make about the nature of the social world you are interested in investigating. Planning researchers start their research with different conceptions of what the social world is like. One way of characterising these differing assumptions is

whether in designing the study, you are interested in trying to find ‘causes and effects’ or put more emphasis on exploring ‘interpretations and meanings’ (see Gomm, 2004). This, together with your view on the nature of research itself, will have consequences for the way that your research will be designed, and the justifications which you use to support those decisions. What is not helpful in this context is to pose research design decisions in terms of a choice between qualitative and quantitative approaches to research, though this is commonly done in the literature (see, for example, Cresswell, 2003).

What are the differences between research designs, research strategies and research methodologies? Here, there is an almost bewildering array of usages to be found in the literature on research. Research design, as discussed above, is about the provisional decisions taken about research at the initial stages of developing the project. The terms research strategy and methodology, are sometimes used as synonyms for research design, as in ‘describe your research strategy or methodology’. But methodology, as used in this book, is about the criteria one should use in making these decisions, and thus the justifications for the decisions and choices made in designing a project. Methodology draws on debates about the nature of the social world and the appropriate ways of finding out about it.

What is ‘well-designed’ research? The answer is, first, that the key decisions which shape the subsequent conduct of the research have been thought about in advance, and the justifications are clear (even though not everyone will necessarily agree with them). This therefore excludes approaches to urban planning research which involve setting out without an initial plan, an approach sometimes associated with the work of qualitative researchers. These key decisions are:

- What research questions to pose?
- What justification is there for the research question to be studied?
- What is the logic of the approach I will use to answer my research question?
- What methods will I use to generate the data?
- How will I analyse the data?
- Have I thought about the ethics of what I am proposing to study? Will the project get ethical approval?

These decisions are shown in Figure 1.1 as a cycle of decisions. This is to suggest that in any research design exercise you may, and probably will, need to reconsider earlier decisions in the light of considerations raised by reflection on subsequent stages of the process. Design is an iterative process.

Second, the test of a design is whether, taking into account what is known about the strengths and weaknesses of different ways of conducting research, and the resources available to conduct the research, the provisional decisions which have been made ‘ensure that the evidence obtained enables us to answer the initial question as unambiguously as possible’ (de Vaus 2001: 9). Of course, unforeseen things may happen which impact on the feasibility of particular designs, which may require a re-think during the process. Flexibility in research in this sense is therefore essential.

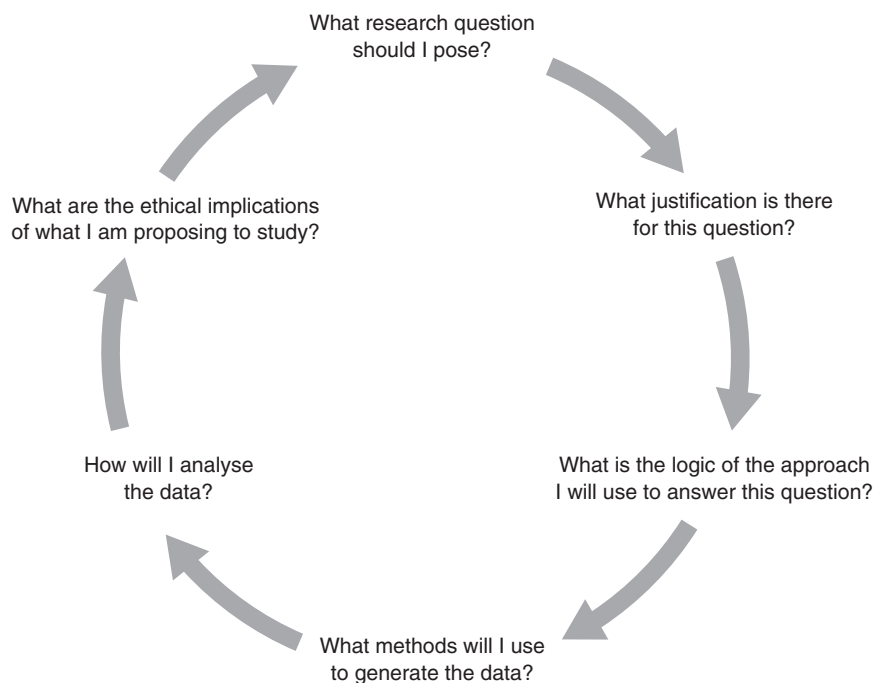


Figure 1.1 The Cycle of Research Design

Structure of the book

The next chapter of the book examines some of the key issues raised in the debate about whether urban planning research should be based on a scientific model derived from an interpretation of research in the natural sciences. It highlights the critique of this model and a consequent shift to ‘post-positivist’ thinking in the planning theory literature: the recognition that values help shape the research process; that knowledge is socially constructed rather than given by the facts of observation; that planning is political and that

planning research, too, is political in the sense that there are different ways of framing or conceptualising any piece of research; that research findings are 'at best' provisional and that there is scepticism about the validity of expert knowledge. If there ever was a consensus that planning research should be scientific, that is no longer the case. The final section explores the different assumptions that underpin the practice of urban planning research, assumptions which are often hidden, but which have important consequences for research design. The chapter concludes by arguing that whilst research cannot deliver certainty of knowledge, nevertheless there is still a role for research findings to contribute to policy debate, though not to determine the outcome of such debates.

Chapter 3 examines the relationship between policy issues and research questions. Academic planning research, including student dissertations, tends to be driven by the changing political agendas in planning. The starting point for an interest in conducting some research may be a current policy issue. But policy issues tend to be complex and contested and accordingly planning problems can be defined in different ways, using different discourses and frames of reference (Fischer, 2003). For those undertaking research the difficulty is distilling answerable questions which can form the basis of a dissertation or thesis from broader policy debates. Achieving this objective constitutes the first condition for developing a proposal which is well-designed. This chapter explores the differences between policy issues and research questions, highlighting the importance of asking the right questions, 'researchable questions', as a necessary (but not sufficient) basis for designing a piece of research.

A second condition for a well-designed piece of research is that the research question which you pose should be justified. Not all research questions are appropriate. Planning researchers usually give some justification for their research in the introductory sections of their published research reports or papers drawing on and reviewing the literature. Chapter 4 explores the nature of the justifications to be found in literature reviews. It is sometimes said that to undertake research and to publish is to engage in an on-going 'conversation' within the field of study. There may of course be endless conversations within any field of study, and any piece of research is unlikely to contribute to more than one of these. The argument of this chapter is that an effective literature review develops an academic argument about why further research is needed on a particular topic or issue. Here, further research will (it should be argued in the literature review) contribute to one of these conversations. A second justification often to be found in published work is that the knowledge produced by the research will have some practical benefit.

The third condition for a well-designed piece of research is some logic to, reasoning behind, or convincing way of, answering your research question. As suggested above all the decisions in research design are essentially concerned with this issue. But the nature of the answer you are seeking, and the claim that you would make at the end of the research, depends on the type of research question you have developed. Some research questions require a descriptive answer; others require an explanatory answer. The next two chapters deal with the initial work that needs to be done here, including both the scoping of research questions and thinking about the selection of cases for study (sampling). Chapter 5 examines descriptive research questions. Particular attention here is given to how to focus your research questions, how you might identify potential data sources from which (or from whom) you might generate data, and the sampling strategies that are available. Here the question of the relationship between the sample you study and some wider population of cases that might exist is raised. This is one sense in which researchers talk about generalising their findings (empirical generalisation).

Chapter 6 deals with explanatory research questions, and how they can be answered. Simplifying some often complex philosophical issues about the logic of research, this chapter looks at the starting point for addressing this question, and the nature of the answer that you might give. It can be helpful to think of two different starting points for a piece of research which aims to answer a 'why' (explanatory) question. Your literature review covering the work of previous researchers may give you some quite precise ideas about why something has happened. You might be interested in the issue of 'planning gain' negotiations, negotiations between planners and developers about the contributions expected from developers towards the costs of public infrastructure associated with new development. Why, for example, might two planning authorities take a different approach to negotiations with developers over planning gain? Here you may have found Bunnell's (1995) study in your review. Bunnell's claim in the cases he investigated was that the explanation for different approaches was to be found in the attitudes of chief planning officers. Here you can start your own research with the hypothesis that the attitudes of chief planning officers will also apply to the cases you are interested in, hypotheses which can be tested against the evidence of your own research. This starting point is often described as taking a deductive approach to research. But in the absence of much previous research you might start with more of an open-ended question, giving your project an inductive orientation. Planning researchers adopting this approach may want to keep a rather open mind about why something has happened, and reserve their conclusions until their research is completed. Whatever starting

point you adopt, the nature of the answer you might give to a 'why' question may either refer to 'causes' and 'causal relationships' or to the 'understanding' which comes from finding out what was in the minds of the actors involved in the situations you have studied.

The focus of Chapter 7 on a fourth condition for having a well-designed research proposal is that appropriate methods of data generation are proposed. The term data 'generation' rather than 'collection' is used to emphasise the point made by Mason (1996) that data is not lying around waiting to be collected by a neutral researcher but that the data is constructed by the decisions which are made about how to 'frame' a project (see Chapter 2), what concepts are used, and how they are defined, about the cases to be sampled and the methods used. This chapter describes the options for data generation available under the heading of interviews and questionnaires; ethnography and observation; and documents.

Well-designed research involves thinking about both the generation of data and how data will be analysed to produce research findings. The consideration of analysis cannot be left until a later stage of research, after the data has been generated. Analysis is a key decision in research design, and the type of analysis to be undertaken needs to be seen in the light of its role in helping you answer your research question. Chapter 8 explores some of the different approaches that planning researchers have taken to the analysis of qualitative and quantitative data based on an examination of some examples from published research, introduced in earlier chapters. The aim is to alert you to the issues involved in analysis, rather than to provide a detailed guidance on how to use particular techniques.

The focus of Chapter 9 is the need for an appropriate approach to ethical issues. A key concern for some researchers is the values that shape the choice of questions for research. Whose interests inform the nature of the identified problem? Some researchers are interested in highlighting the voices and perspectives of, and in some way speaking for, those who are commonly ignored in policy discussion: women, the poor, the disabled, ethnic minorities. The conventional approach is to accept that values are important in defining the topic of study and the precise aspect of that topic to be investigated (a position called value-neutrality), but that in the conduct of the research the only concern of the researcher should be to reveal the truth about the topic investigated. But what about the interests of planning practitioners? Should their concerns be the ones that guide planning research so that research is 'relevant'? Some argue for a close relationship with practice, others wish to keep their distance in order to insulate themselves from what are often contested political issues and, in turn, to protect politics from research. Beyond the

framing of the research, a second way in which students have to confront ethical issues is the common requirement to get ethical approval for their projects. Here the ethical issues relating to research in planning are little different from those in social science more generally and there are ethical codes of practice which are often used for these purposes.

The final chapter looks at cross-national comparative research in urban planning. There has been a growing interest in comparative planning research in recent years by students. Part of this can be explained by the development of the EU, and the opportunities it has opened up for exchanges between planning academics and students across Europe, and the funding of cross-national planning studies under the Interreg and ESPON programmes in Europe. Moreover, there have been international conferences where planning researchers from Europe, the US and Asia have met to exchange experiences of planning in different states and cultures. Some of the interest in comparative planning also comes from the interest in the scope for policy learning, and policy transfer between countries. Chapter 10 discusses some of the purposes underlying cross-national comparative studies in planning, and emphasises some of the challenges involved in studying planning within the 'institutional context' of a different country, and the practical difficulties that might be faced in designing and conducting a successful study.

Summary/Key lessons

1. The main lesson of this chapter, and of the book as a whole, is that it is important when working on a dissertation to plan your research: that is to think about the design of your research in advance of launching into conducting it.
2. You should spend around a third of the time available to complete your dissertation working on research design.
3. Well-planned or designed research requires that:
 - key decisions which shape the subsequent conduct of the research have been thought about in advance
 - these decisions are taken in the light of the time you have to complete the project and write the dissertation
 - that the justifications for these decisions are clear (even though not everyone will necessarily agree with them, because there are different views on how research should be conducted).

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4. These key decision areas are highlighted by the following questions:

- What research questions should I pose?
- What justification is there for the research question to be studied?
- What type of approach will I use to answer my research question – descriptive or explanatory?
- What methods will I use to generate the data?
- How will I analyse the data?
- Have I thought about the ethics of what I am proposing to study? Will the project get ethical approval?

If you come up with satisfactory answers to all these questions you will have produced a well-designed project.

Exercise: A topic for your dissertation



You can't start thinking about research and research design without some initial idea about the topic which you wish to investigate, so it is important to start thinking about this as early as possible. Ideas for dissertations can come from many sources. You might look at previous dissertations in your department, to find out the sorts of topic, often policy issues, that have interested previous generations of students. You might do this to come up with some topic which is new or original. But there can be benefits from building on previous studies too. You might try to think of a different angle on a topic that has been investigated before, or see the scope for investigating it in a different way.

You could think imaginatively about the kinds of economic, social or political changes that are taking place in different places and about the kinds of issues or debates that are going on in planning at the moment. Potential sources of ideas are planning literature, local or national newspapers (these tend to be critical of planning (see Clifford, 2006)), projects that you have been involved in during your course, or lectures or seminars where 'interesting' planning issues have been discussed. You need a topic which is going to be sufficiently interesting to motivate you to keep working on it for the usually extended period over which you are expected to work on it.

It is really important to start writing, as well as thinking, about your dissertation so even if you spend only half an hour thinking about this:

1. Write down the topic you think you will investigate. (100 words)
2. Write a short explanation for your personal motivation in looking at this topic. (50 words)
3. Send these to your tutor and arrange a date when you can talk to them about this.

Further Reading

A number of texts cover the issue of research design, taking somewhat different approaches to the concept from the one taken here. Blaikie (2000), for example, has a chapter which distinguishes between research proposals and research designs.

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