There is much to be planned before you should venture out into the field to collect data for your research project. This Part considers how to refine a wide-ranging interest into a focused, researchable question and how to conduct a literature review to find out what is already known about the subject. It also identifies the ethical issues that need to be considered when designing a research project. You will learn about some common approaches to research, including research based on grounded theory, participatory research and research that combines several methods within the same project.
3  Formulating and Refining a Research Question

Nicola Green

Key points

3.1 Introduction

3.2 ‘Deep Thought’

3.3 The characteristics of social research questions

3.3.1 Interesting

3.3.2 Relevant

3.3.3 Feasible

3.3.4 Ethical

3.3.5 Concise

3.3.6 Answerable

3.4 Formulating and refining a research question

3.4.1 Step 1 Go large

3.4.2 Step 2 Narrowing the list

3.4.3 Step 3 Refining the questions

3.4.4 Step 4 Review

3.5 The research question and …

3.5.1 Research design

3.5.2 The literature review

3.5.3 Data collection and analysis

3.6 Summary

Discussion questions

Resources
Specifying the research question clearly is central to the success of a research project. Formulating a research question is the first step of a project. The question must be researchable and answerable. The question should be used to guide the research. It is common that the research question changes as the research proceeds.

### 3.1 INTRODUCTION

The research question is central to the design of a research project as a whole, and a crucial step in the process of carrying out a research project. Initially, however, many researchers find the task of identifying their research question quite daunting, and the process frustrating. This chapter presents some clear and specific steps to follow, which are designed to assist researchers in this process: the overall objective is to examine the process of devising and refining a social research question. The chapter seeks first of all to emphasise the importance of the research question in the research process. It then explains the characteristics and qualities of a focused social research question, and describes the process of formulating a researchable question from a general topic area. The chapter goes on to consider the role of the research question in project design, the literature review, and data collection and analysis, and suggests practical strategies to assist the process of focusing and reformulating the research question throughout the research process. The chapter will argue that the formulation of the research question is intellectual work, and a task that is continually revisited throughout a research project.

### 3.2 'DEEP THOUGHT'

In Chapters 1 and 2, the importance of considering broader research approaches and theoretical frameworks at the beginning of the research process was established. The way a research question is formulated is crucial in drawing together the underlying philosophical approach and conceptualisation, with the design of a project, and its methodology and methods. It is the first step in research design (Chapter 2), and shapes the subsequent conduct of empirical investigation and other research activities of a project.

A robust and answerable sociological research question is therefore essential in any successful social research, and the absence of a researchable question
may cause later difficulties – as the pan-dimensional, hyper-intelligent race of beings that built Deep Thought found, to their cost:

According to The Hitchhiker’s Guide to the Galaxy [Adams, 1979], researchers from a pan-dimensional, hyper-intelligent race of beings constructed the second greatest computer in all of time and space. Deep Thought, to calculate the Ultimate Answer to Life, the Universe, and Everything. After seven and a half million years of pondering the question, Deep Thought provides the answer: “Forty-two.” The reaction?

“Forty-two!” yelled Loonquawl. “Is that all you’ve got to show for seven and a half million years’ work?”

“I checked it very thoroughly,” said the computer, “and that quite definitely is the answer. I think the problem, to be quite honest with you, is that you’ve never actually known what the question is.” (Wikipedia, 2006)

Loonquawl’s dilemma – not actually knowing what the question is – is one that often faces sociologists and other social scientists at the beginning of the research process. Social researchers often embark on the process of research with general interests in broad topic areas, which are generally sparked by a lively curiosity about the social world, and a ‘sociological imagination’ (Mills, 1959). Sometimes they are derived from previous reading, writing, and thinking, or are informed by a perceived social problem, or are prompted by reports in the media. At other times they may be derived from our own personal experiences, or a critically informed observation of, and participation in, the social world around us.

Dixon, et al. (1987: 25) comment that ‘[w]hen we want to know something, we begin formally or informally to engage in research’, and suggest there are a range of starting points from which we can begin the process of sorting, refining and focusing our interests in topic areas into more systematic research questions. To extend the starting points above, for example:

- Previous reading and thinking might compel us to ask:
  ‘Society as a whole is more and more splitting up into ... two great classes directly facing each other – bourgeoisie and proletariat’ (Marx and Engels, [1848] 1948). So does ‘the proletariat’ really still exist? If so, who are these people? If not, what has changed? What recent reading has prompted your interest in particular areas of research?

- A perceived social problem might compel us to ask:
  Is it really the case that more CCTV in city centres leads to a reduction in crime? Why is the unemployment rate higher (or lower) now than it has been recently? What are the difficulties faced by teenage mothers and fathers? What prompts ethnic conflict in neighbourhood areas? Are there current policy-related or perceived social problems that you are particularly interested in?
A media report might compel us to ask: Why is it that newspaper headlines are now all talking about climate change (or homelessness, or biotechnology, or unemployment, or divorce rates, or health, or education, or ...)? *Have there been issues in the news recently that have particularly caught your attention, and that you want to research further?*

Personal experiences might compel us to ask: Why am I having such a difficult time applying for a bank account? How come there are so few people from my culture in my neighbourhood? Why is moving out of home such a big deal to my parents? Why does my grandmother seem to have so little money? Why is my friend hanging out with that guy? And how did I end up doing social research anyway? *Are there issues you want to investigate that arise from aspects of your own experience in the social world?*

Observation and participation in our society might compel us to ask: Why is it that more men than women seem to play computer games? Why is population density higher in some countries than in others? Why don’t people talk to each other when they are standing in queues? Why is it that people from different religions seem to be in conflict with one another? Why do people always face the doors in elevators? *What observations have you noted recently that might deserve further investigation?*

While we may have an area of general interest in mind for research, and perhaps an inkling of the kinds of topics and variables we might want to address, we rarely have a well-considered and systematic research question immediately to hand. As Schutt (2004: 28) remarks, ‘So many research questions are possible that it is more of a challenge to specify what does not qualify as a social research question than to specify what does.’ What is needed in a research project, however, is a research question or problem that provides direction for the project, that defines the course of the investigation, and that sets boundaries on the research (O’Leary, 2004).

As Chapter 2 indicates, social scientific research is generally based on the systematic gathering of empirical data to answer a question or provide evidence about a proposition (whether cast as a research question, a problem statement, or later, as more specific hypotheses – this will be discussed further in Section 3.4). The expression of a general area of interest is rarely a systematic or specific enough basis upon which to design and execute a sufficiently self-contained research project, however. To take an earlier example – Why is it that more men than women seem to play computer games? – we can immediately see that this question, while of interest, is not nearly specific or concise enough to investigate, because the question itself prompts too many further questions. For example – What men? What women? Where? Of what age group? In what context? Which computer games? (and you can probably think...
of several further questions). While research questions or problem statements can take a myriad of different forms, they share those characteristics of being systematic, clearly defined, and specific. As Blaikie (2000: 59) notes, it is not only ‘that research questions are necessary; but ... good research needs high quality questions’.

3.3 THE CHARACTERISTICS OF SOCIAL RESEARCH QUESTIONS

In order to be sufficiently systematic, clearly defined and specific, a social research question must, first and foremost, be researchable. To be researchable, the research question or problem statement should have at least six properties. It should be:

• Interesting
• Relevant
• Feasible
• Ethical
• Concise
• Answerable.

TIP
Use these terms as a checklist when you are refining your own research problem

3.3.1 INTERESTING

The research question needs first of all to be interesting for the researcher, because without the ongoing motivation and enthusiasm of the researcher throughout the duration of the project, the research project risks ultimate failure. Maintaining a curiosity about the subject one is studying can sometimes become challenging, particularly when the research presents difficulties. If, however, one is ‘passionate’ (Game and Metcalfe, 1996) about sociology and social research, and enthusiastically curious about the issue or problem under scrutiny, maintaining momentum in the research process becomes easier, and the product more satisfying. On the other hand, having too intense an interest in what one is studying can have unintended consequences, if bias is introduced in this way.
Maintaining a critically reflexive stance while formulating one’s question can therefore mitigate any effects of potential bias, as well as maintain interest in the project over its lifetime.

3.3.2 RELEVANT

While the question should be interesting for the researcher, it should also be interesting and relevant for the research community of which the research forms a part. Research is generally of interest to a research community when it makes a contribution to the collective knowledge base of a study area or discipline, so formulating a question to which the answers are likely to be significant, novel, or original is most relevant for other researchers in the area. The orientation, according to Walliman (2006: 30), is to ‘find a question, an unresolved controversy, a gap in knowledge or an unrequited need within the chosen subject’. It should be remembered, however, that the importance or relevance of a research question is often relative to the context in which a researcher finds themselves, so the criteria for the relevance of a research question in a seminar project, may be very different to those criteria in, for example, an institutionally funded independent research project (Schutt 2004: 30). Sometimes the problems to be researched are not entirely at the discretion of an individual researcher, and instead can be influenced by supervisors, research institutions or by organisations with a specific interest in the area. It is therefore desirable to maintain a balance between the specific research interests of the researcher, and the interests of the research community as a whole.

3.3.3 FEASIBLE

The research question or problem should be stated in such a way that the project is feasible, and has specific boundaries that make the project delimited and doable. There are many possible and interesting research questions to be asked, but not all of them can be answered within the timeframe and by the resources of a specific project. Consideration needs to be given to the costs of the project, the timeframe in which it is to be completed, the time and skills of the researchers undertaking the project, and whether the access to research participants, and information needed to complete the project, are likely to be available.

3.3.4 ETHICAL

As the research question is the fulcrum around which all other research decisions are made, it is essential to consider the ethical dimensions of the research question or problem from the beginning, as this will inform the ethical obligations and procedures throughout the research project as a whole (see Chapter 8). It is particularly desirable to reflect on the ethical dimensions of the research problem.
when institutional ethical procedures are required for project approval. Considering these issues from the outset, and embedding these considerations in your research question, will help to ensure that the research project fulfils its ethical obligations, both professionally and institutionally.

### 3.3.5 CONCISE

The research question should be concise. That is to say, the question should be well articulated, its terms clearly defined, with as much precision as is possible in written language. For example, many research questions make reference to specific concepts. As was described in Chapter 1, most research projects usually have a broad overarching theoretical framework that informs the area of interest under scrutiny. The theoretical background, however, needs to be more specifically formulated in a sociological research question, and can be articulated in terms of specific concepts (for example, ‘class’, ‘gender’, or ‘power’) that are derived from previous theorisations (with reference to the theorist), and defined in terms of specific words or phrases in the question. Moreover, many research questions also specify an object of research, sometimes several objects. The term object as it is used here differs from its everyday usage referring to a material ‘thing’ – rather, the ‘objects’ are the social entities, relationships and processes that are under scrutiny by the researcher. In social research questions, very often the ‘objects’ of research specified are particular social groups, specific social institutions, particular organisations, social contexts or sites of various kinds, or social relationships or processes, across both micro-sociological and macro-sociological scales of reference. Further discussion on introducing sufficient precision to the research question is included in Section 3.4.

### 3.3.6 ANSWERABLE

Finally, the research question should be answerable. Although this appears to be common sense, or self-evident (a question requires an answer), it is sometimes forgotten. In order to make a question answerable, it is often desirable in the initial formulation of the research question to use an interrogative form in the first instance (although this may later be changed to the form of a problem statement when the research focus has been refined). The most common interrogatives are those that are commonly used in everyday language: who, what, when, where, how, which, and (often most importantly) why. Using interrogatives means first of all that an answer to the question is expected, and can be provided. Furthermore, interrogatives serve to clarify the characteristics and objectives of the research – that is, to suggest whether the research question is descriptive or analytical in nature (see ‘research objectives’ in Section 3.4.3). As one might expect, a descriptive research question (beginning with such interrogatives as ‘what?’) seeks to describe a situation or case under scrutiny, in
order to add to a knowledge base of what exists with respect to some aspect of the social world. By contrast, if a research question is *analytical* in nature, it seeks to *explain* or *understand* some aspect of the social world (and therefore often answers ‘why?’ questions). Most research projects contain both descriptive and analytical elements. Sometimes this is because in order to explain, one must first describe. At other times a *causal relationship* is being explored between related terms or variables which requires the description of the association in order to establish a causal relationship. Further discussion of the relationship between research questions, and the characteristics and objectives of the research, are given in Section 3.4.

These six properties of researchable sociological research questions are a useful checklist to keep in mind throughout the process of formulating and refining a question. It remains the case, however, that devising and clarifying social research questions remains one of the most difficult, as well as one of the most crucial, tasks to carry out in the design of a research project. Considering its importance, it is also an element of the research process that has had relatively little attention paid to it in the methodological literature (although see Blaikie, 2000, for a review of this literature). Those that have addressed this process have, however, put forward a number of useful strategies that are explored, expanded and categorised below (see Resources for particularly useful texts).

### 3.4 Formulating and Refining a Research Question

As we have already seen, general interests in broad topic areas can be expressed in a number of ways, from the relatively limited, micro-sociological and observation-based (‘I wonder why people graffiti?’), to the relatively large scale, macro-sociological and discipline-based (‘I’m interested in why some people end up in prison, and others don’t’), and combinations of both. There could be a range of possible answers to broad questions or problems such as these, such that they might take a lifetime of research to answer, certainly beyond the feasible scope of a single research project.

As O’Leary (2004: 11) observes, the process of devising and refining a research question involves ‘the art and science of knowing what you want to know’, and formulating a sociological research question is a critical research skill that must be practised in order to be perfected. The process is one of a progressive focusing and refinement of an original area of interest, and is a process based on critical thinking, involving the systematic questioning of the objectives, terms and assumptions expressed in a larger area of interest. The process involves four steps.
3.4.1 STEP 1 GO LARGE

Paradoxically, when beginning with a broad area of interest that needs clarifying and narrowing, one of the best places to start is to ‘go large’ – to generate all the possible research questions that you can think of (and that you are interested in) in particular research areas. This process is one of lateral thinking and will help you to identify questions that you may not have previously considered and, most importantly, test the limits of your ideas on the topic.

There are a number of strategies that can help in this process:

- **Have a brainstorming session**, where you make a first attempt to write down every interesting question you can think of about the subject, including questions of all different kinds, and different orders of magnitude. Use a notebook for this first brainstorming session, and then carry it with you to write down further questions as and when they occur to you. Recording one question will often inspire other questions, and these should also be recorded until you appear to have exhausted the limits of your ideas in the topic area.

- **Test the questions against what you already know about the subject from your own knowledge, and the discipline’s collective knowledge in previous social research.** Compare those questions that might already have answers proposed in previous research, against those that may not have been considered before. Which existing answers might be extended, or considered from a different angle? Which new questions already have partial answers, and what is missing? What questions seem entirely new, and why?

- **Consider how you could make use of ‘concept mapping’, a process whereby both logical and creative visual association allows the researcher to consider links and relationships between different concepts – from the most abstract concepts to the specific and concrete, from the central thematic focus to related key words and phrases, to the specific associations or relationships between linked concepts.** Concept maps can help to focus the most important elements of your questions with those that are more peripheral concern, can identify existing knowledge and gaps in it, or can identify existing relationships or generate new ones (see O’Leary, 2004).

- **Think widely about your subject area, and what can be found in sources other than academic literature.** The topic may be represented in many different forms, from popular films, television programmes and songs, to newspaper reports, policy documents and museum exhibits. What stories are these other media presenting, and why? What relationship do they bear to your emerging research question? (see Chapter 1 on ‘lay theories’).

- **Brainstorm not only yourself, but talk extensively to peers, colleagues and supervisors.** Often others can see the strengths and problems of a question that a researcher may miss when they are immersed in the extensive possibilities.
Once you have a list of research questions that would be interesting to research, it is necessary to start the work of narrowing the list, excluding some questions and refining others. This is an iterative process, and one that will be carried out many times throughout the research project as a more rigorous order is imposed on ideas that are initially only loosely associated. It is important to try to maintain a critical reflexivity in this part of the process, and to cultivate a frame of mind in which previously treasured ideas can be excluded. Remember that not all potentially interesting questions are researchable ones, and that even when researchable, any specific project may not be possible given the constraints that inevitably attend the research process:

- It may be the case that some of your proposals for a research question are actually sub-questions of other, more over-arching questions, or that some questions can be consolidated together. It is likely that ‘major’ research questions will provide the central focus for the research project as a whole, and that ‘subsidiary’ questions will provide more detail and focus for particular concepts or elements (Blaikie, 2000). Often, the subsidiary questions make a more general and abstract major question more concrete, and break the major problem down into smaller components that can be more easily researched.

- Reconsider your list and exclude any questions that seem of more peripheral interest. You could try to rank your questions in their order of importance, and exclude those that are least important to you.

- At the same time, concentrate on thematically clustering those questions that seem of most central interest, and consider the relationship between them. Which questions seem more abstract, and which more concrete? What is their scope? Try to rank your questions in order of abstraction and/or scope, and consider which questions might be answerable within given constraints and which might not.

- Keeping in mind the over-arching injunction that a research question should be answerable, return to the checklist of characteristics of good social research questions. Any particular question on your list might be interesting for you, but is it also relevant for the research community, and an ethical project? Is the question feasible and do-able within the time constraints of the project, the information available, and the skills and resources of the researcher? If any particular question does not conform to these criteria, exclude it from your list.

Steps 2 and 3 are presented separately here, but in practice, the processes of narrowing and refining research questions often happen at the same time. This is
because making judgements about what to narrow and exclude, or what to cluster together and consolidate, also relies on reflective judgements about what your questions mean – their objectives, terms, and assumptions with respect to the knowledge they are likely to produce. The process of refining a question involves paying very detailed attention to its wording and critically evaluating the assumptions that are embedded in the way the research questions are put together.

- **Research objectives:** When you have achieved a rather more narrowed list, reconsider the objectives of each research question. The research objectives are different from its hypotheses or data collection methods – the objectives are often embedded in the form of the research question itself, and state what purpose the collection of data will accomplish, and the types of knowledge to emerge, whether descriptive or analytical (see Section 3.3). Research objectives are often flagged by a number of key words and phrases that signal the research purpose: for example, will your research explore, will it describe, or is it intended to explain, to compare, to understand, to intervene and change, or to evaluate?

What is your research question trying to achieve? What does the question imply are the purposes of the research project, and the types of knowledge it will produce? What does your list of questions currently suggest your research objectives are? How can they be rephrased, refined (or excluded) to better reflect the orientation of the research? Is it possible to rephrase your question as a statement of a research objective (or objectives)?

Blaikie (2000: 60–1) suggests that there are three main types of research question: *what* questions (requiring description), *how* questions (concerned with process, change, interventions and outcomes), and *why* questions (concerned with causes, reasons, relationships and activities). Consider the relationship between the ways your question is phrased (there can be different phrased variations of what, how and why questions), and the objectives or purposes of the research. How can the question be better refined so that the objectives of the research are most closely related to the way the question is phrased? It is possible for each kind of question to be phrased in terms of the others (a ‘what’ question into a ‘how’ question into a ‘why’ question) depending on what the objectives of the research are.

- **Terms:** When a research question is vague and unspecified, a number of critical questions may also be asked in order to identify those terms in the question that remain imprecise. The question must be broken down into its terms, or component parts of language (words and phrases), and subjected to critical, specifying questions in order to identify how more precise language might be employed. Often, these specifying questions are interrogatives that we use in everyday language – beginning with the ‘what, how and why’ questions that help frame our research objectives, but also including ‘who, when, where, and which’ questions. These specifying questions may
be asked both of the terms that specify the *objects* of the research, as well as the *concepts* included or implied in the question (see Section 3.3 for the characteristics of social research questions that make them concise).

- **Assumptions:** All research questions contain assumptions of some kind (see Chapter 1). Empirical or theoretical assumptions are an inescapable feature of research, as in each instance of research we are building on a previously existing knowledge base that confirms some existing assumptions, and challenges others. Assumptions are therefore impossible to avoid – but at the same time, it is necessary to be clear about the specific assumptions that underpin the research question, both in order to position them with respect to other research in the field, and to establish the limitations of the knowledge claims that can be made with respect to the questions asked, and data thereafter collected.

  Assumptions exist both at the level of theoretical conceptualisation (see Chapter 1) in the research question, as well as the philosophical and methodological orientation implied by the way the research question is posed (see Chapter 2).

Earlier in the chapter, an expression of general interest in a topic area was posed – ‘Why do more men than women play computer games?’ By breaking down this question into its component parts, it becomes immediately apparent that several terms or words are general rather than specific, and critical questions may be posed to clarify and specify those terms:

(Why) do (more) (men) than (women) (play) (computer games)?

- The *why* suggests that the objectives of the research are to understand and explain, to provide reasons for a phenomenon or set of activities

- The *more* suggests a quantitative comparative element to the research. Is this quantitative comparison a descriptive element of the planned research? Or is it an assumption that needs to be interrogated and confirmed with reference to other, relevant research?

- What *men* and *women*? Where? Of what class, or ethnic group? Of what nationality or region? Of what age? When? (This kind of critical question is also important in the design of samples – see Chapter 9).

- If the comparative terms are ‘men’ and ‘women’, it suggests the concept of *gender* is involved. Is this an assumption that is underpinning the research? Should it therefore be made more explicit in the research question?
(Continued)

- How is the term ‘play’ defined? What behaviours are entailed? Is ‘play’ an activity, an event, a relationship, or a process?

- What kind of computer games? Individual games? Team games? On a games console, a PC, on the Internet? Situated in the home, in a cybercafe, at a league meeting?

What critical questions are missing from the list above that could also be applied to the terms included in the research question?

On the basis of these critical questions, how could the question be rephrased in different ways to introduce more precision and clarity?

What words or phrases in your own research questions could be further specified and clarified in this way?

Many research questions will include specific theoretical conceptualisation, and wherever specific concepts are introduced to the research question, thought should be given to the assumptions being made about the concepts under scrutiny.

- In the example ‘How does the concept of gender help us to understand why more men than women play computer games?’, what role is being given to ‘gender’? What is meant by the term? If the concept of gender is involved, then how will gender be defined in the proposed research? On what basis – or with reference to what theoretical framework or previous research – would you define it in such a way? As a property of a person? As a property of group activity? As a social process? (see Chapter 1 on conceptualisation).

- What concepts are implicit in your research question? Should they be made explicit?

- What concepts are explicit in your research question? What are the parameters of those concepts, and how will they be defined and deployed in the research?

In the case of theoretically-based research questions, the level of conceptualisation is high, making reference both to concepts in a general theoretical framework, as well as the conceptual work that constitutes the empirical elements of the research.

The level of theoretical conceptualisation explicitly present in the research question is closely related to whether the project is based on inductive or deductive reasoning (see Chapter 2). If the project is focused on the description
of a particular example of social life, which is then used to theorise a more general pattern, inductive reasoning is being used – and in this instance specific theoretically-based conceptualisation may remain more implicit in the research question itself (i.e. the question is more likely to focus on the gathering of descriptive empirical data – guided by ‘what’ questions – that are later theorised in the analysis). In the example – ‘Why do more men than women play computer games?’ – more inductive reasoning is being employed, as the research question focuses more directly towards an empirical situation. By contrast, in a research question that begins with the exploration of a specific theoretical or conceptual framework, more deductive reasoning is being used. The theoretical explanation acts as the general case, and the empirical element of the project is the particular instance that is used to explore or test the more general theory. To orient the earlier example more deductively, we could rephrase the research question to read ‘How does the concept of gender help us to understand why more men than women play computer games?’ as above.

In practice, most research questions contain both inductive and deductive elements, and the research questions will reflect both logics. This is because some knowledge of the empirical world is needed first to develop theories, and some theoretical knowledge is needed to decide what empirical data should be addressed (see Chapter 2).

The level of explicit conceptualisation in the research question, and the researcher’s understanding of the relationship between theory and research, will also affect whether specific hypotheses will be formulated and operationalised in the research design. In Chapter 2, we learnt that an hypothesis is a conjecture about relationships between relevant variables, cast as a statement that is testable. It provides a clear (if tentative) proposition of what might be the case, that is then subjected to verification via empirical investigation. Hypotheses are, however, distinct from the research questions asked, and should not be confused. It is not always possible, appropriate or desirable to formulate hypotheses in order to guide a research project as a whole. This is generally because hypotheses seem to have a different status in different traditions of social research, and vary with respect to their role, purpose and precision. In Blaikie’s (2000: 70) view:

Hypotheses are tentative answers to ‘why’ and, sometimes, ‘how’ research questions. They are our best guesses at the answers. But they are not appropriate for ‘what’ questions. There is little point in hazarding guesses at a possible state of affairs.

Hypotheses, therefore, should be treated with caution, and should not be the primary guide in the research process. Rather, it is the research question (and sub-questions) that guide the research project as a whole, even in the case where it is later appropriate to formulate hypotheses in order to empirically test theories, concepts and relationships.
3.4.4 **STEP 4 REVIEW**

Once you have narrowed down the questions from the original list, identified your major and subsidiary questions, and refined them with respect to their objectives, terms and assumptions, you are in a position to review the process, and the narrowed list of questions. At this point, it is worth again asking further critical questions of your narrowed list:

- Are all the questions you have decided upon essential? What purpose does each serve? What is the relationship of each to the others?
- Are you able to identify the objectives of the research in each question? Are you clear about the meanings of your terms, and the assumptions that lie behind your question?
- Revisit the checklist of a researchable social research question. Is your question researchable according to these criteria?

At this point, you should have a list of no more than around five or so questions and/or sub-questions (often there may be less, but be wary of committing to too many more, as focus may be lost). After your narrowing and clarifying activities, these questions should be sufficiently clear and precise to provide a focus for the ongoing research and boundaries around it, and to then to guide the design of your research.

When a researcher has hit upon a small number of related – major and subsidiary – research questions, it is tempting to assume that the process of refining a research question for a project has 'finished'. In practice, however, the refining of a research question is intellectual work that takes place again and again in the course of research. Not only is it common, but it is often desirable that the research question change (especially in the early stages of a project) as your knowledge of the field grows. Each stage of the research project as a whole will challenge the research question, and prompt a re-refining and re-narrowing process, so that the research question will be revisited many times through the research project.

### 3.5 THE RESEARCH QUESTION AND …

Depending on the type of research, the research question is not necessarily complete when the narrowed list has been formulated. Rather, each further stage of the research process – including the literature review, the research design, and data collection and analysis – provides the opportunity to revisit the question. Often this is because each further investigation into some aspect of the problem will illuminate unexpected directions and new avenues of possible thinking and
investigation – each stage will confirm some assumptions, and challenge others. Research is rarely linear, and the form of the research question is therefore intimately embedded with other stages of the research process in a recursive and iterative way – while the research question guides all other research activities, other research activities can cause us to critically challenge and re-examine our research questions. The difficult decisions to be made are whether further developments refine the questions you already have and enrich your research, or whether they are distractions, sending you off in ultimately unproductive directions.

While the process of re-evaluation is constant, there are three significant points where it is sensible to step back and review the focus, objectives and terms of the research question. These points are design, review and data collection and analysis.

3.5.1 RESEARCH DESIGN

The formulation of a research question underpins the design of research as a whole and implies what form the research project will take. In research design, every element of the research process is considered and planned, including the background to the problem and the review of previous research, through to the methodological approach, and the methods of data collection and analysis. It affects how populations or groups are sampled, what methods will be used to access those groups, through what means data will be obtained, and how those data will be treated once they are collected.

As O’Leary (2004: 2) comments,

It is important to remember that particular research strategies are good or bad to the exact degree that they fit with the questions at hand. The perspectives you will adopt and the methods you will use need to be as fluid, flexible, and as eclectic as is necessary to answer the questions posed.

This implies that the strategies adopted throughout the design and execution of the research project are all informed by the underlying question. It is therefore wise, at each stage of research design, to reflect on your questions, and use the research design and question to interrogate each other:

• Are your approaches and research strategies commensurate with the question you are asking?
• Is your proposed sample consistent with the groups, organisations, relationships or processes specified in the question?
• What methodological strategies are implied by the purposes and objectives of your research question?
• What methods of data collection are most consistent with the objectives of
the research, as they are embedded in the question?
• Does your question need adjusting in light of your proposed research
design, or could you rework your research design on the basis of your
reconsidered question?

3.5.2 THE LITERATURE REVIEW

Even before engaging in the process of formally refining a research question, it is
likely you will have made some initial foray into the literature in your field of
study – whether this is from previous reading, or an pilot literature review while
initially exploring your research topic? Once you have formulated and refined
your research question, a more formal review of the literature often follows.

As is indicated in Chapter 4, a literature review serves multiple purposes. These
can include the need to explore and summarise previous research in the field to
identify the research base on which your own research is to be built, to explore the
theoretical and conceptual foundations of your project, to critically assess the
strengths and limitations of previous research to inform the design of your own
study, and to explore various methods of data collection and analysis.

As this exploration of various literatures takes place, it is again desirable to
reflect on your own research question in order to re-assess its strengths and
weaknesses:

• As you explore the theoretical literature, consider how you are defining the
conceptual underpinnings of your question. Has any of the theoretical liter-
ature caused you to reconsider the ways you are defining the terms of your
question, or the assumptions implicit in it?
• Has your summary of previous research caused you to reconsider the orig-
inality, relevance or interest of your current research question? If so, how
can your question be recast to better reflect the position of your research
with respect to that of others?
• Has any of the literature on data collection and analysis caused you to
reconsider the scope of your project, or its design and execution? How can
this be better articulated in a revised research question?

3.5.3 DATA COLLECTION AND ANALYSIS

Research questions guide and direct the selection of the most appropriate data
collection and analysis techniques for your project. The terms ‘quantitative’ and
‘qualitative’ most appropriately refer to types of data, rather than types of
method. Many data collection techniques can collect data of both a quantitative
It’s just too easy to fall into the trap of selecting a familiar method, rather than approaching method as a critical thinking exercise aimed at answering particular research questions. It is amazing how much simpler it is to adopt, adapt, or create appropriate methodological approaches when you are absolutely clear about what you want to know.

The decisions you take about the most appropriate data collection and analysis techniques for your project will be based upon the underlying objectives of the research, and the types of knowledge that may be expected to result from the deployment of particular methods. As you are considering your data collection methods and analytical techniques (both in research design and research planning), consider how the resulting data might provide answers to your research question.

- What kind of data will your proposed collection methods provide? Is this the most appropriate type of data to answer your research question, and to address your research objectives? Why?
- Reconsider your type of question – what, how, why – and think about how your proposed data will address the specific type of question you are asking.
- What are your proposed methods for analysing the data you collect? Are these analytical methods likely to provide the conceptual and empirical evidence sufficient to provide an answer (or more likely several possible answers) to your question?

It may not always be possible to determine at the outset whether particular collection and analysis techniques are likely to provide the evidence needed to answer the research question. This is particularly the case in exploratory research. However, these points should all be considered, both when designing research and during the data collection process. The data collection phase offers opportunities to re-think the research question because data collection methods can sometimes unearth unexpected results. One of the reasons a research question may change is when an initial or ‘pilot’ phase of data collection provides data that are either inappropriate to answer the research question as it stands (or do not provide the evidence needed), or when a more fruitful avenue of investigation arises unexpectedly from the process of data collection itself.

In short, every phase of the research offers opportunities to reconsider, reformulate and refine the research question. Indeed, the formulation of the research question is ongoing intellectual work, a difficult and reiterative task that is continually revisited throughout the research process until the end of any given project. With continual practice, formulating and refining a research question becomes an important skill in the researcher’s repertoire. It remains the case in every research project, however, that question work is sometimes only resolved when the question, and answers, come together at the end of the research process.
This chapter has examined the process of devising and refining a social research question by examining just how important this task is in the context of the research process as a whole. The chapter began by considering the characteristics and qualities of a focused sociological research question, and indicated six criteria that might be used to assess whether any particular question posed is ‘researchable’. The chapter went on to describe techniques and strategies in a four-step critical process of refining a research question from a general topic area, to a question that is both researchable, and answerable. The chapter considered the relationship between the formulation of a research question, and other elements of the research process such as research design, the literature review, and data collection and analysis. The chapter concluded by arguing that the crucial intellectual work of refining a research question is often only completed, and resolved, when, at the end of a project, the data derived from research provide answers to the questions posed.

**DISCUSSION QUESTIONS**

1. What are the desirable characteristics of researchable social research questions? Are any of these more important than the others? Why?

2. Why is it important to create a long list of possible research questions when you really want to narrow your choices?

3. What is the relationship between narrowing your research questions, and refining them?

4. What relationship do major and subsidiary questions bear to each other? What function does each type of question bear?

5. Why is it important to revisit the research question at each stage of the research process?

**RESOURCES**

Many sources for strategies and techniques with respect to formulating research questions are to be found in guides for dissertations and theses, at both undergraduate and graduate levels. O’Leary (2004) *The Essential Guide to Doing Research* provides a very useful and practical introductory text on ‘doing’ research, especially Chapter 3, ‘Developing Your Research Question’.

Blaikie (2000) *Designing Social Research*, Chapter 3, ‘Research Questions and Objectives’ provides a slightly more advanced text, particularly considering the research question with respect to the logic of enquiry more generally.

Walliman (2006) *Social Research Methods* on social research methods is a thorough introduction, considering the research problem with respect to the conditions of knowledge production (*epistemology* and *ontology*).