
Notes

1. Much of this chapter also relates to photographs, but this sub-field has a literature of its own—for example, Schwartz and Ryan (2003) and Quinachi (2006).
2. A discussion of the behind-the-scenes work of the archivist in appraising, arranging, and describing records is provided by Harvey (2006).
3. Indeed, you may be dealing with records in another language. For instance, there is a good deal of correspondence in Te Reru Maro in Archives New Zealand, except not all of which is accompanied by an English version prepared by official translators.
4. These guidelines are expanded on in the American Historical Association’s Statement of standards of professional conduct, which is available online at http://www.historians.org/PUBS/Free/ProfessionalStandards.cfm.
5. Given that this volume focuses on qualitative methods, I have omitted discussion of how a researcher might extract and present in tabulated form quantitative information derived from archival sources.

CHAPTER OVERVIEW

This chapter deals with questionnaires, an information-gathering technique used frequently in mixed-method research that draws on quantitative and qualitative data sources and analysis. We begin with a discussion of key issues in the design and conduct of questionnaires. We then explore the strengths and weaknesses for qualitative research of various question formats and questionnaire distribution and collection techniques, including on-line techniques. Finally, we consider some of the challenges of analyzing qualitative responses in questionnaires, and we close with a discussion of the limitations of using questionnaires in qualitative research.

INTRODUCTION

Qualitative research seeks to understand the ways people experience events, places, and processes differently as part of a fluid reality, a reality constructed through multiple interpretations and filtered through multiple frames of reference and systems of meaning-making. Rather than trying to measure and quantify aspects of a singular social reality, qualitative research draws on methods of drawing out and interpreting the complexities, context, and significance of people’s understanding of their lives (Byles and Smith 1988). Within this epistemological framework, how can questionnaires contribute to the methodological repertoire of qualitative human geography? This chapter explores the possibilities.

Commonly in human geography, questionnaires pose standardized, formally structured questions to a group of individuals, often presumed to be a sample of a broader population (see Chapter 4). Questionnaires are useful for gathering original data about people, their behaviour, experiences and social interactions.
attitudes and opinions, and awareness of events (McLafferty 2003; Parfit 2005). They usually involve the collection of quantitative and qualitative data. Since such mixed-method questionnaires first appeared with the explosion of behaviourist research in the 1970s (Gould 1980), they have been used increasingly to gather more complex data in relation to matters as varied as the environment, social identity, transport and travel, quality of life and community work, and social networks.

While there are some limitations to the depth and extent of qualitative data that questionnaires are generally capable of gathering, they have numerous strengths. First, they can provide insights into relevant social trends, processes, values, attitudes, and interpretations. Second, they are one of the more practical research tools in that they can be cost-effective, enabling extensive research over a large or geographically dispersed population. This is particularly the case for questionnaire surveys conducted on-line for which printing and distribution costs are minimized (Sue and Ritter 2007). Third, they are extremely flexible. They can be combined effectively with complementary, more intensive forms of qualitative research, such as interviews and focus groups, to provide more in-depth perspectives on social process and context. For instance, Burnham, Meer, and McGarvie’s (2004) investigation of the impacts of the social mix policies of the New South Wales Department of Housing on understandings of community combined key informant interviews with housing officials, questionnaires with local residents, and follow-up in-depth interviews with volunteers who had participated in the questionnaire. Data from the questionnaire provided a framework for the in-depth interviews, allowing key themes, concepts, and meanings to be teased out and developed (see Askew and McGarvie 2004, England 1993, and Winchester 1999 for similar examples). In this mixed-method format particular, questionnaires can be both a powerful and a practical research method. Comparatively, Beckett and Clegg (2007) report on the success of qualitative research into women’s experiences of lesbian identity using only carefully designed postal questionnaires to gather rich accounts from respondents. This process was seemingly nurtured rather than constrained by using the questionnaire as a research instrument. It allowed respondents the privacy and time to consider and develop their responses to sensitive questions. This example contradicts the presumption that questionnaires cannot be a powerful means of collecting detailed qualitative data in many research contexts.

**QUESTIONNAIRE DESIGN AND FORMAT**

While each questionnaire is unique, there are common principles of good design and implementation. Producing a well-designed questionnaire for qualitative research involves a great deal of thought and preparation, effective organizational strategies, and critical review and reflection, as an array of literature suggests (for example, de Vaas 2002; Dillman 2007; Fink and Rosecott 1998, Foddy 1993; Fowler 2002; Gillham 2009; Lumsden 2005; see also the relevant chapters in Babbo 2001; Clifford and Valentine 2013; Flowerdew and Martin 2005; Hoggart, Lees, and Davies 2012; and Sarantakos 2005). The design stage is where a great deal of researcher skill is vested, and it is a critical stage in ensuring the worth of the resulting data. Notwithstanding the quality of the questionnaire devised, we are beholden as researchers to ensure that we have sufficient reason to call on the time and energy of the research participants. The desire to generate our ‘own’ data on our research topic is insufficient justification (Hoggart, Lees, and Davies 2002). As with any study, the decision to go ahead with a questionnaire needs to be based on careful reflection on detailed research objectives, consideration of existing and alternative information sources, and appropriate ethical contemplation that is attuned to the particular cultural context of the research (see Chapters 2, 4, and 16).

The content of a questionnaire must relate to the broader research question as well as to your critical examination and understanding of relevant processes, concepts, and relationships. As a researcher, you need to familiarize yourself with relevant local and international work on your research topic. This ensures clarity of research objectives and will help you to identify an appropriate participant group and relevant key questions. You need to be clear on the intended purpose of each question, who will answer it, and how you intend to analyze responses. You also need to be mindful of the limits to what people are willing to disclose, being aware that these limits will vary across different social and cultural groups in different contexts. Public housing tenants, for instance, might be wary about offering candid opinions about their housing authority. Respondents might be cautious about what they are willing to disclose in questionnaires administered via e-mail because of the loss of anonymity that occurs when e-mail addresses can be matched with responses (Van Selin and Jankowski 2006). Every question, then, needs to be carefully considered with regard to context and have a clear role and purpose appropriate to the social and cultural norms and expectations of the participant group (Madge 2007).

Begin by drawing up a list of topics that you seek to investigate. Sarantakos (2005) describes the process of developing questions for a questionnaire as a process of translating these research topics into variables, variables into indicators, and indicators into questions. Identify the key concepts being investigated, and work out the various dimensions of these concepts that should be addressed. Then identify indicators of the dimensions, and use them to help you formulate specific questions. Doing this will ensure that each question relates to one or more aspects of the research and that every question has a purpose. De Vaas (2002) suggests
that it is helpful to think about four distinct types of question content:

1. **attributes**: Attribute questions aim at establishing respondents' characteristics (for example, age or income bracket, dwelling occupancy status, citizenship status).
2. **behaviour**: Behaviour questions aim at discovering what people do (for example, recreation habits, extent of public transport use, food consumption habits).
3. **attitudes**: Questions about attitudes are designed to discover what people think is desirable or undesirable (for example, judgment on integrating social housing with owner-occupied housing, willingness to pay higher taxes to fund enhanced social welfare services).
4. **beliefs**: Questions about beliefs aim at establishing what people believe to be true or false or preferred (for example, beliefs on the importance of environmental protection, beliefs on the desirability of social equity).

A guiding principle for question types, however, is that you need to be sure that your target participant group will understand the questions and have the knowledge to answer them. As is the case in newspaper journalism, it is recommended that unless you are targeting a specialized and homogenized group, you phrase questions to accommodate a reading age of approximately 11 years (Lumsden 2005). Respondents also need to be capable of answering the questions; for instance, it might be beyond their ability to comment with any certainty on whether government planning policies have contributed to local coastal degradation, leading them to abandon the questionnaire.

Apart from the typology of question content, there is a range of question types from which to choose. We commonly make a distinction between closed and open questions, each of which offers its own strengths and weaknesses and poses different challenges depending on the mode through which the questionnaire is being administered (e.g., mail, face-to-face, e-mail). **Closed questions** may seek quantitative information about respondent attributes (for example, level of educational attainment) or behaviour (for example, how often and where respondents buy groceries). You should provide simple instructions on how to answer closed questions (e.g., how many responses the respondent can tick). Some examples are set out in Box 10.1. Closed questions can ask respondents to select categories, rank items as an indicative measure of attitudes or opinions, or select a point on a scale as indicative of the intensity with which an attitude or opinion is held (see Sarantakos 2005, ch. 11). A major benefit of closed questions is that the responses are easily coded and analyzed, a bonus when interpreting a large number of questionnaires. Indeed, for web-based questionnaires, a data file can be assembled automatically as respondents type in their answers. Closed questions are demanding to design, however, since they require researchers to have a clear and full understanding of what the range of answers to a question will be. Respondents' answers are confined to the range of categories designed by the researcher as an exhaustive and exclusive list of possible answers, and this can be a limitation. It has also been found that when respondents are asked to 'tick all appropriate categories' on a list (see the category list question in Box 10.1), they can turn to **satisficing behaviour**. That is, they keep reading (and ticking) until they feel they have provided a satisfactory answer and then stop. This is a particular issue for web-based questionnaires in which limited screen space means that all categories cannot be viewed on one screen (Dillman, Tortora, and Bowker 1998).

A greater potential limitation of closed questions is that they rest on the assumption that words, categories, and concepts carry the same meaning for all respondents and this may not always be the case. For example, how a respondent answers the question 'How often have you been a victim of crime in the past two years?' will depend on what the respondent includes in their definition of a crime (de Vries 2002). It is worthwhile to be aware, too, that the ways particular questions are posed or how they relate to preceding questions can influence respondents' answers. For instance, Bobbe (2001) demonstrates how greater support in questionnaire/surveys is indicated habitually for the option worded as 'assistance to the poor' rather than as 'welfare' and for 'halting rising crime rate' rather than 'law enforcement'. A criticism of closed questions, then, is that 'one may learn more about the behaviour of the sample in responding to a set of categories... than about the behaviour under investigation' (Cox 1981, 264). This limitation can be lessened by offering an answer option such as 'other' (please specify) or by using **combination questions** that request some elaboration on or explanation of the selection made in a closed question (see Box 10.1).

In general, **open questions** have greater potential to yield in-depth responses in keeping with the thrust of qualitative research: to understand how meaning is attached to process and practice. Open questions offer less structured response options than closed questions, inviting respondents to recount understandings, experiences, or opinions in their own terms. Rather than offering alternative answers, which restrict responses, they provide space (and time) for free-form responses. Open questions also 'give voice' to respondents and allow them to question the terms and structure of the questionnaire itself, demonstrate an alternative interpretation, and add qualifications and justifications. This capacity acknowledges the co-constitution of knowledge by researchers and research participants (Beckett and Gregg 2007). For instance, in a questionnaire used by Winchester, McGuirk, and Dunn (1997) in Carrington, New South Wales, concerning urban redevelopment and its impact on the close-knit nature of the stable community being researched, a respondent pointed out that it could not be assumed that a stable community implied a close-knit community, as the questionnaire
### Types of Questionnaire Questions

#### Closed questions

**Attribute information**
- How often do you shop at this shopping mall? (please tick the appropriate box)
  - Less than once a week
  - Once a week
  - Twice a week
  - More than twice a week

**Category list**
- What was the main reason you chose to live in this neighbourhood? (please tick the appropriate box)
  - Proximity to work
  - Proximity to family and friends
  - Proximity to schools or educational facilities
  - Proximity to shopping centre
  - Proximity to recreational opportunities
  - Environment
  - Housing costs
  - Good place to raise children
  - Pleasant atmosphere of neighbourhood
  - Other (please specify)

**Rating**
- Please rank the reasons for buying your current house (please rank all relevant categories from 1 [most important] to 6 [least important]).
  - Price
  - Location
  - Size
  - Proximity to job/family
  - Investment
  - Children’s education

**Scaling**
- Please indicate how strongly you agree/disagree with the following statement (please tick the appropriate box):
  - Having a mix of social groups in a neighbourhood is a positive feature.
  - Strongly disagree
  - Disagree
  - Neutral
  - Agree
  - Strongly agree

#### Grid/matrix question

Think back to when you first got involved in environmental activism. What initially inspired you to get involved? (please tick the appropriate box for each reason)

<table>
<thead>
<tr>
<th>Very influential</th>
<th>Fairly influential</th>
<th>Not very influential</th>
<th>Not influential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spirituality/religious beliefs</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fear/anxiety about ecological crisis</td>
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<tr>
<td>Desire to change the world</td>
<td></td>
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<tr>
<td>Nature/ecology experiences and care for the environment</td>
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<tr>
<td>Political analysis</td>
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<tr>
<td>Commitment to justice</td>
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<tr>
<td>Felt like you could make a difference</td>
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<tr>
<td>Influential person (please specify)</td>
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<td>Influential book, film (please specify)</td>
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<tr>
<td>Key event (please specify)</td>
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<tr>
<td>Contact with an organization, campaign, or issue (please specify)</td>
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<tr>
<td>Outreach activities by an organization (please specify)</td>
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<td></td>
</tr>
<tr>
<td>Wanted to meet new people</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Want to learn new skills</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Sense of personal responsibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Combination question
Have changes in the neighbourhood made this a better or worse place for you to live? (please tick the appropriate box)
☐ Changes have made the neighbourhood better
☐ Changes have not made the neighbourhood better or worse
☐ Changes have made the neighbourhood worse
Please explain your answer below.

Open questions
What have been the biggest changes to the neighbourhood since you moved in?

What, if any, are the advantages for civic action groups of using the internet, e-mail, and cellular phones?

Please describe any problems you encounter using public transport.
Beyond issues of logic, clarity, and comprehensiveness, attention should also be given to ensuring that questions do not threaten or challenge respondents by assuming implicit cultural, ethnic, or religious beliefs, which may arise from researchers’ insensitivity, ignorance, or lack of preparation. The need for concern about respondents’ ‘cultural safety’ (Matthews et al. 1998, 316) is part of the researcher’s broader ethical obligations.

The flow and sequence of the questionnaire will be fundamental to respondents’ understanding of the research purpose and to sustaining their willingness to offer careful responses and, indeed, to complete the questionnaire to its conclusion. Grouping questions into sections of related questions connected by introductory statements will help here. In general, open-ended questions are better placed towards the end of a questionnaire, by which time respondents are aware of the questionnaire’s thrust and may be more inclined to offer fluid and considered responses. In terms of layout, aim for an uncluttered and spacious design that is easy and clear to follow. Where you use closed questions, aligning or justifying the space in which the answer should be provided will contribute to clarity and simplify coding responses in the analysis stage. With open-ended questions, you need to be conscious of the need to leave enough space for respondents to answer without leaving so much as to discourage them from offering a response altogether.

All of these basic questionnaire design principles need to be observed regardless of how the questionnaire is being distributed: Whether by mail, face-to-face, by telephone, by e-mail, or on-line. However, the on-line environment presents some additional design factors that are important to consider (Dillman 2007). Web-based completion of a questionnaire makes it possible to incorporate a wide range of design features such as split screens, drop-down boxes, images, and sound tracks, but most of these features require powerful computers, particular software, and ample download time. You need to consider whether the participant group has the ability and the capacity to receive and respond to the questionnaire and its mode of questions. A total website content of less than 60 kilobytes of text and graphics is recommended (Lumsden 2005). You also need to remember that on-line questionnaires require respondents to think about how to respond to the questionnaire while simultaneously thinking about how to operate their computer, a matter that is particularly important if your target participant group is less computer-literate. Keeping things simple and limiting the number of actions a respondent has to undertake to complete a question is sensible. Finally, you need to take account of whether you will administer your questionnaire solely on-line or through other media as well (e.g., by mail), in which case you need to be mindful of how questions will be posed in those other modes.

Box 10.3 outlines additional key principles for the design of on-line questionnaires (adapted from Dillman and Bowker 2001). Finally, whether developing a conventional or on-line questionnaire, you should write a cover letter or e-mail to be included with posted questionnaires or sent as pre-notification for telephone, face-to-face, or on-line questionnaires. Box 10.4 offers examples. The letter or e-mail needs to provide general information about the purpose of the questionnaire as well as information about...
Guidelines for Designing On-line Questionnaires

- Introduce web questionnaires with a welcome screen providing basic instructions and information and encouraging completion.
- Ensure the first question is interesting to most respondents, is easily answered, and is fully visible on the first screen.
- Use conventional formats for questions, similar to those normally used on self-administered paper questionnaires.
- Provide clear instructions on the computer action needed to respond to each question, and position them at the point where they are needed.
- Limit the length of the questionnaire. The typical length of a paper questionnaire may seem excessively long when completed on a website where a typical print page can take up several computer screens.
- Keep the layout, colour, and graphics simple to ensure navigational flow and readability are maintained across different browsers and screen resolutions.
- Allow respondents to move on to the next question without first having to answer a prior question.
- Allow respondents to scroll from question to question without having to change screens.
- Consider displaying answer categories as a double-bank if the number of answer choices exceeds what can be viewed in a single column on one screen.
- Include graphics or words that indicate how much of the questionnaire the respondent has completed.
- Close with a thank-you screen.

Box 10.3

Sampling

Before administering a questionnaire, you will need to make a decision about the target audience, or sample. In quantitative research, questionnaires are used commonly to generate claims about the characteristics, behaviour, or opinions of a group of people ("the population") based on data collected from a smaller sample of that population. The population might be, for example, tenants in public housing, the residents of a given local government area, or people living with HIV/AIDS. The sample—a subset of the population—is selected carefully to be confidentiality, how the respondent was selected for inclusion in the research, how long the questionnaire will take to complete, and when relevant, instructions on how and when to return the questionnaire.

Box 10.4

Examples of Invitations to Participate in Questionnaire Studies

Sample cover letter

School of Geography
Geography Building
East Valley University
Kingsland 9222
Telephone: (04) 8988777
Facsimile: (04) 8988779
E-mail: E.saunders@evo.edu.ca

High-density residential living in Port Andrew, East Valley

I am Edith Saunders, a research student with the School of Geography at the East Valley University. As part of my research on high-density residential environments in East Valley, I am investigating how people understand and create feelings of home in high-density neighbourhoods. The research is being conducted in collaboration with East Valley Council and is aimed at informing its policy and planning decision-making. The work is focused on the Port Andrew area, and you have been selected to receive this questionnaire as a local resident.

The questionnaire asks about the ways you understand and use your home and the ways you interact with your local neighbourhood spaces and services. The questionnaire will take approximately 30 minutes to complete, and completion is voluntary. The questions are asking primarily about your experiences and opinions—there are no right or wrong answers. All answers will be treated confidentially and anonymously—individuals will not be identifiable in the reporting of the research.

It would be appreciated if you could complete the questionnaire at your earliest convenience and no later than July 30. Once you have completed it, please return the questionnaire in the reply-paid envelope provided. Return of the questionnaire will be considered as your consent to participate in the survey.

Your participation is greatly appreciated. Your opinions are important in helping to build understanding of high-density residential living and how it can be supported through local government planning and provision of neighbourhood spaces and services.

Questions about this research can be directed to me at the address provided.

Thank you in advance for your participation.

Yours faithfully,

Edith Saunders

The university requires that all participants be informed that if they have any complaints concerning the manner in which a research project is conducted, it may be given to the researcher or, if an independent person is preferred, to the university's Human Research Ethics Office, Research Unit, East Valley University, 3012, Telephone (04) 8988 1234.
Sample e-mail invitation to participate in an online questionnaire

From: kanchana.phonsavath@evi.edu.ca
To: [email address]
Subject: Survey on high-density residential college living

Dear Student,

I am a research student with the School of Geography at East Valley University. As part of my research, I am investigating how students understand and create feelings of home in high-density residential college environments. The research is being conducted in collaboration with EVU and East Valley Council. You have been selected to receive this invitation to participate as a student resident of one of EVU’s residential colleges.

We are interested in the ways you understand and use your college accommodation and the ways you interact with your local neighbourhood spaces and services. The questionnaire will take approximately 30 minutes to complete and is completely voluntary and confidential. The data will be used to evaluate university and council policies and their support of high-density residential environments.

To complete the questionnaire, please click on the following link:
http://www.new urbanspiring.evau.org.ca/surveys.html

It would be great if you could complete the questionnaire in the next two weeks. If you have any questions or need help, please e-mail me at kanchana.phonsavath@evu.edu.ca.

Thank you in advance for your participation.
Kanchana Phonsavath

The university requires that all participants be informed that if they have any complaints concerning the manner in which a research project is conducted, it may be given to the researcher or, if an independent person is preferred, to the university’s Human Research Ethics Officer, Research Unit, East Valley University, 9222, Telephone (64) 898 7934.

representative of the population such that the mathematical probability of the sample characteristics being reproduced in the broader population can be calculated (May 2001). In such cases, a list of the population in question, the sampling frame, is required so that a sample can be constructed (for example, the tenant list of a given public housing authority, a local electoral register, a health register of all people in a given geographical area receiving treatment for HIV/AIDS). The rules surrounding sampling are drawn from the central limit theorem used to sustain statistical claims to representativeness, generalizability, and replicability (see McCafferty 2003; Parfit 2005; Robinson 1998).

On the other hand, questionnaires used in qualitative research are likely to be used as a part of mixed-method research aimed at establishing trends, patterns, or themes in experiences, behaviours, and understandings as part of analysis of a specific context, without seeking to make generalizable claims about whole populations (Robinson 1998, 409). Hence, a more appropriate sampling technique for qualitative research is non-probability sampling where generalization to a broader population is neither possible nor desirable and sampling frames may not, in any case, be available. Some web surveys, for instance, involve the self-selection of respondents where anyone who agrees to complete the questionnaire can be included in the sample. For example, Tomson and Marshall’s (2007) research in Australia into the perception and experience of safety at gay and lesbian events included an on-line questionnaire. Respondents were invited to complete the questionnaire through targeted advertising in the gay and lesbian press, a media release, radio interviews, and contacting and giving information about the questionnaire to 25 on-line chat groups and e-mail lists to pass on to their members. A total of 322 people from across the country participated in the questionnaire. Specifically, purposive sampling (see Chapter 4) is commonly used where sample selection for questionnaire respondents is made according to some known common characteristic, be it a social category (for example, male single parents), a particular behaviour (for example, women who use public transport), or an experience (for example, people who have been victims of crime). There are no specific rules for this type of sampling. Rather, the determinants of the appropriate sample and sample size are related to the scope, nature, and intent of the research and to the expectations of your research communities.
MODES OF QUESTIONNAIRE DISTRIBUTION

Consideration of the mode of questionnaire distribution should be one of the earliest stages of your questionnaire design. It has significant implications for design, layout, question type, and sample selection. The main distribution modes are mail, face-to-face, telephone, and the Internet-mediated modes of e-mail and the world wide web. Each mode has distinctive strengths and weaknesses, and the choice among them depends on the research topic, type of questions, and resource constraints. The best choice is the one most appropriate to the research context and target participant group, while the success of any particular mode is dependent on a design appropriate to context and participant group. So the question is: what should researchers interested in qualitative research be aware of and guide them in the choice of mode?

Mail questionnaires have the clear advantages of cost and coverage. They can be delivered to large samples over large areas (for example, an entire country or province) at a relatively low cost. The anonymity they provide may be a significant advantage when sensitive topics are being researched—for example, those dealing with socially disapproved attitudes or behaviours, such as racism or transgressive sexual behaviour, or topics involving personal harm, such as experience of unemployment or experience of crime. Respondents may also feel more able to take time to consider their responses if unimpeded by the presence of an interviewer. Clearly, too, the absence of an interviewer means responses cannot be shaped by how an interviewer poses a question, how they interact with the respondent, or how they interpret cues in the conversation in culturally specific ways.

Nevertheless, mailed questionnaires are generally the most limited of the three modes in terms of questionnaire length and complexity. The scope for complex open questions is particularly limited by the need for questions to be self-explanatory and brief, and this may be a significant consideration for qualitatively oriented research. Once the questionnaire is sent out, there is little control over
who completes it, or, indeed, over how it is completed; respondents may choose to restrict themselves to brief, unreflective, or patterned responses. A response to the question 'what do you value about living in this community?' might yield a response of several paragraphs from one respondent and the comment 'friends and neighbours' from another. There is no opportunity to clarify questions or probe answers. Nor is there control over the pattern and rate of response. Some parts of the target participant group may respond at a higher rate than others. It is common, for instance, for mailed questionnaires to achieve significantly higher response rates in wealthy neighbourhoods than in less socially advantaged neighbourhoods. Finally, mailed questionnaires can be subject to low response rates unless respondents are highly motivated to participate. Response rates of 30 to 40 per cent are considered good (Clok et al. 2004b), although effective follow-up steps can increase a rate somewhat (May 2001; Robinson 1998).

Distributing questionnaires electronically is a recent variation on mail distribution. There are three main means of electronic distribution: (1) sending the entire questionnaire to respondents as an e-mail attachment, (2) e-mailing respondents an introductory letter with a hyperlink to a web-based questionnaire, and (3) distributing a general request for respondents (for example, via an on-line newsgroup) to complete a web-based questionnaire. A major benefit of electronic distribution is that it 'compresses' physical distance and enormously expands the reach of the questionnaire. Participant groups that are otherwise difficult to contact with paper questionnaires can be reached. This could include, for example, people with restricted mobility who might find it easier to respond on-line than to mail a completed questionnaire. Furthermore, people practising covert or illegal behaviours—for example, graffiti artists or drug users—may be more easily recruited through the Internet. The Internet is also a powerful way of gaining access to self-organized groups—for example, those with common interests, lifestyles, or experiences organized into chat-rooms, newsgroups, and on-line forums. Mailing lists or on-line newsgroups can be used for circulating the questionnaire or inviting participants to complete an on-line questionnaire. However, some groups are sensitive to the intrusion of researchers via mailing lists and newsgroups to request participation (Chen, Hall, and Johns 2004). Many discussion groups state their privacy policy when you join, so researchers should check the welcome message of public discussion lists for guidelines before using them to recruit potential participants (Mudge 2007).

Regardless of the specific means of electronic distribution used, the recruitment of participants will be affected by the age, class, and gender biases that shape computer use, e-mail and on-line patronage (see Gibson 2003). Careful consideration needs to be given to whether the coverage of who can be reached is problematic for the research in hand.

Other benefits of electronic distribution include the cost-savings and efficiencies of e-mail and on-line questionnaires. One distinct advantage is the ability to incorporate colour images and graphics without associated printing costs, although you should avoid overloading on-line questionnaires with cluttered design features or complex graphics that require excessive download time. Electronic distribution opens up new opportunities for flexibility in question design, for more complex questions to be posed, for incorporating adaptive questions with encoded skip patterns, thus removing the need for complex instructions and filter questions, and for increasing the potential to generate rich qualitative data. Researchers who have taken advantage of electronic distribution report response rates comparable with those of conventionally distributed questionnaires, especially if pre-notification e-mails are used, with respondents characteristically submitting lengthy commentaries on open questions (Hoggart, Lees, and Davies 2002; Sheehan and McMillan 1999; Van Selin and Jankowski 2006), a plus for qualitative research. Apart from saving on print and postage costs, the electronic collection of data offers the major advantage over paper questionnaires of eliminating the need for a separate labour-intensive phase for data entry and coding of closed questions (Van Selin and Jankowski 2006).

Mailed and on-line questionnaires do, however, present a particular set of challenges surrounding their hidden costs, privacy issues, and technical capacities and failures. The cost and labour savings of avoiding coding and data entry through electronic data capture can be offset by the costs of design and programming (Hewson et al. 2003). To run a web-based questionnaire, you need to be proficient in producing HYPERTEXT documents, to use survey construction software packages, which can be costly, or to use the commercial services of a web survey host (see Sue and Birtier 2007, Appendix A). Costs can vary significantly. When it comes to privacy and confidentiality, the identity of web-based questionnaire respondents can be protected if they withhold their names, although technically adept researchers can collect data about web-based participants using, for example, user log files or Java Applets (Lundsten 2003). Anonymity cannot be provided to e-mail questionnaire respondents when the returned questionnaire attaches the e-mail address. Responses stored on computer files, and on-line, can be accessible to hackers, and this may be a particularly important concern if the study being conducted involves sensitive and personal subjects. Using encryption to increase the security of data on a server and backing up and storing data in a secure off-line location are advisable.

Qualitative research is often very effective if an interviewer administers face-to-face questionnaires, although this is a costly option. The major benefits of this mode flow from the fact that an interviewer's presence allows complex questions to be asked (see Chapter 6). As well, an interviewer can take note of the context of the interview and of respondents' non-verbal gestures, all of which add depth to the qualitative data collected (Clok et al. 2004b; May 2001). As an interviewer, you can motivate respondents to participate and to provide considered, qualitatively informative responses. Moreover, people are generally more likely to offer
long responses orally than in writing. However, as Beckett and Clegg’s (2007) work on lesbian identity suggests, this outcome is context-dependent. Perhaps more crucially, face-to-face questionnaires give an interviewer the opportunity to clarify questions and probe vague responses (see Chapters 6 and 7 for related discussions). For example, adding probes like ‘why is that exactly?’, ‘in what ways?’, or ‘something else?’ can elicit reflection on an opinion or attitude. Long questionnaires can also be sustained because direct contact with an interviewer can enhance respondent engagement. The ability to pose complex questions and elicit more in-depth and engaged responses is a major benefit for qualitative research. Moreover, this high level of engagement can also secure high response rates—Babbie (2001) estimates 80 to 85 per cent—with a minimal number of nil responses and ‘don’t know’ answers. However, the level of interviewer skill and reflexivity required to secure optimal outcomes should not be underestimated.

As Kevin Dunn discusses more fully in Chapter 6, the presence of an interviewer can be a powerful means of collecting high-quality data, but it introduces limitations as well. Interviewer/respondent interaction can produce ‘interviewer effects’ that shape the responses offered. People filter their answers through a sense of social expectation, especially when interviewed face-to-face (Lee 2009). They may censor their answers according to perceived social desirability. That is, they may avoid revealing socially disapproved behaviours or beliefs (such as racism) or revealing negative experiences (for example, unemployment). Beckett and Clegg (2007) chose postal questionnaires specifically to ensure the absence of an interviewer. Their argument was that participants should be allowed to recount their stories in their own terms, without any identification with the researchers’ associations with particular geographical spaces or social and cultural attributes and without fear of judgment by the researchers. When interviewers are used, one means of dealing with respondents’ self-censoring is to incorporate a self-administered section (the questionnaire or to reassure respondents of a guarantee of anonymity. Moreover, the interviewer’s presence (as an embodied subject with class, gender, and ethnic characteristics) can also affect the nature of responses given. For instance, Padfield and Procter (1996) suggest that the gender of the interviewer introduces significant variations. So while distinct benefits arise from using face-to-face distributions, there are drawbacks. Perhaps the most limiting is the practical consideration of cost. Interviewer-administered questionnaires are expensive and time-consuming and tend to be restrictive both spatially and with respect to population coverage. However, as we suggested before, this factor may not be a significant drawback if a particular, localized participant group is targeted.

While the opportunities for personal interchange are more restricted in telephone than in face-to-face questionnaires, the telephone mode still offers the possibility of dialogue between researcher and respondent and can provide some of the associated benefits along with a certain anonymity that may limit problematic interviewer effects. Conducting questionnaires over the phone may encourage respondent participation because it may be seen as less threatening than opening the door to a stranger wanting to administer a questionnaire. However, telephone delivery constrains the scope for lengthy questionnaires, with about 30 minutes being the maximum time respondents are willing to participate (de Vaus 2002). Furthermore, because the mode relies on a respondent’s memory, the question format must be kept simple and the number of response categories in closed questions needs to be limited. However, the advent of computer-assisted telephone interviewing (CATI) and voice capture technology is significantly enhancing telephone questionnaires (see Babbie 2001, 263) and extending their potential in this regard. Moreover, they can be administered with great convenience and at relatively low cost.

Telephone questionnaires may rely on a telephone directory as a sampling frame, and this can introduce class and gender biases among respondents as well as ruling out people whose numbers are not listed. Moreover, as cellular phone use increases, landline directories are becoming less useful as a sampling frame. If telephone numbers are available for a purposefully selected group of people, this may not pose a problem. Historically, telephone surveys have had good response rates (Fittelsen 1991), and follow-ups can be conducted much more conveniently than face-to-face or mailed questionnaires by means of a simple call-back. However, growing public annoyance with unsolicited marketing calls means approaches by telephone face rejection or screening out by answering machines.

**Maximizing Questionnaire Response Rates**

Questionnaire response rates are shaped by the research topic, the nature of the sample, and the quality and appropriateness of questionnaire design as much by the mode of distribution. In any case, questionnaire response rates tend to be higher when using a purposive sample—as is common in qualitative research—wherein interest in the research topic may be strong. There is strong evidence that response rates for on-line questionnaires are stronger if the questionnaire is relatively brief, taking no longer than 20 minutes to complete, is not overly complex to complete, is relatively simple in design, and does not require participants to identify themselves (Lumsden 2005). Regardless of the mode of distribution, response rates can be improved by undertaking a series of strategies before questionnaire distribution and as follow-up (Dillman 2007) in order to both maximize participation and minimize non-responses. Box 10.5 summarizes the key strategies and indicates for which modes of distribution they are appropriate.
### Strategies for Maximizing Response Rates

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Face-to-Face</th>
<th>Telephone</th>
<th>Mail</th>
<th>On-line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure mode of distribution is appropriate to the targeted population and research topic.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Send notification letter (or e-mail pre-notification) introducing the research and alerting to the questionnaire’s arrival (or posting on-line).</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place newspaper or on-line advertisement in local community newspaper/ magazines or on-line chat-rooms/newsgroups introducing the research and alerting to the conduct of the questionnaire.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ensure questionnaire is concise.</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure appropriate location of approach.</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure appropriate time of approach.</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Very time if no contact is made initially.</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-arrange time/location for conduct of questionnaire, if appropriate.</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Ensure reply-paid envelope is included in mail-out.</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Print questionnaire on coloured paper to distinguish it from introductory material or other mail.</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Send follow-up postcard/e-mail thanking early respondents and reminding others (about one week after initial receipt).</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### ANALYZING QUESTIONNAIRE DATA

Analyzing questionnaires used in mixed-method research that blends qualitative and quantitative data requires an approach that distinguishes between closed questions in which responses are provided in an easily quantified format and open questions that seek qualitative responses. Quantitative data arise primarily from closed questions that provide counts of categorical data (for example, age and income bands, frequency of behaviour) or measures of attitudinal or opinion data (see Box 10.1 for examples). Questions such as these are relatively easy to code numerically and analyze for patterns of response. Relationships between the variables that the hypotheses have interrogated (May 2001). Indeed, as noted above, response categories can be pre-coded on the questionnaire, simplifying matters even further (see de Vaus 2002 or Robinson 1998 for more detail). While data can be collected readily and easily collated within the electronic environment. The analysis of qualitative responses is more complex. The power of qualitative data lies in its revelation of a respondent’s understandings and interpretations of the social world, and these data, in turn, are interpreted by the researcher to reveal the understandings of structures and processes that shape respondents’ thought and action (for elaboration, see Craig 2005b; Robinson 1998, 426–7). Chapters 11, 14, and 17 discuss the techniques and challenges of coding and analyzing qualitative data in detail. Nonetheless, it is worth raising some important points specific to analyzing qualitative data arising from questionnaires.

In qualitative responses, the important data often lie in the detailed explanations and precise wording of respondents’ answers. For qualitative research, then, it is best to avoid classifying qualitative responses into simple descriptive categories so as to report on them quantitatively, stating, for example, that ‘49 per cent of respondents had positive opinions about their neighbourhood’. There are two problems here. First, such reporting gives the misleading impression that findings are quantitative and could be used to make generalizations. It may well be statistically misleading, too, to report in this form the results of what might
be a relatively small purposive sample. Second, this approach involves 'closing' open questions so that much of the richness of how respondents constructed, in this example, their positive understandings and experiences of their locality, is lost. Certainly, classifying qualitative responses into descriptive categories allows us to simplify, summarize, compare, and aggregate data, but this kind of approach forfeits the nuance and complexity of the original text. Reporting on observations in this way is unlikely to contribute much to our understanding of the meanings and operations of social structures and processes and people's interpretations and behaviour in relation to them. It is more attuned to the thrust of qualitative research to analyze data gained from a questionnaire by sifting and sorting to identify key themes and dimensions as well as the broader concepts that might underlie them (see the discussion of analytical coding in Chapter 14). Reporting findings in these terms is much more meaningful than falling back on awkward attempts to quantify the data.

Further, in analyzing qualitative responses, we need to be aware that qualitative research makes no assumption that respondents share a common definition of the phenomenon under investigation (be that quality of neighbourhood, experience of crime, understanding of health and illness, and so on). Rather, it assumes that variable and multiple understandings coexist in a given social context. We need to incorporate this awareness into how we make sense of respondents' qualitative answers. Indeed, one of the strengths of using questionnaires in qualitative research can be their ability to identify variability in understanding and interpretation across a selected participant group, providing the groundwork for further investigation through additional complementary methods such as in-depth interviews.

Finally, keep in mind that qualitative data analysis is sometimes referred to as more of an art than a science (Babbie 2001). It is not reducible to a neat set of techniques. Although useful procedures can be followed (see Chapter 14), they may need to be customized to the unique concerns and structure of each questionnaire and the particular balance of quantitative and qualitative data it gathers. For this reason, and others, at all stages of the process of analysis we need to be mindful of engaging in critical reflexivity, especially when considering how our own frames of reference and personal positions shape the ways in which we proceed with analysis (see Chapters 2 and 17).

CONCLUSION

In seeking qualitative data, questionnaires aim not just at determining qualitative attitudes and opinions but at identifying and classifying the logic of different sets of responses, at seeking patterns or commonality and divergence in responses, and at exploring how they relate to concepts, structures, and processes that shape social life. This is no easy undertaking, and questionnaires struggle with the tensions of seeking explanation while being generally limited in their form and format to obtaining concise accounts.

Hoggart, Lees, and Davies (2002) argue that the necessarily limited complexity and length of questionnaires prevent them from being used to explain action (since this requires us to understand people's intentions), the significance of action, and the connections between acts. Compared with the depth of information developed through more intensive research methods such as in-depth interviews, focus groups, or participant observation, questionnaires may provide only superficial coverage. Nonetheless, they can help us begin the explanation in that they are useful for identifying regularities and differences and highlighting incidents and trends (see de Vaus 1995 for an extended critique). Indeed, as Beckett and Clegg's (2007) work shows, in some contexts they can enable the collection of full and frank, thoughtful and detailed accounts in ways that more intensive methods involving interviews and interviewers' presence may inhibit.

There are ways of constructing and delivering effective questionnaires that are largely qualitative in their aspirations, being mindful of the possibility of acquiring deep analytical understandings of social behaviours through careful collection of textual materials. Certainly, the interview, through its record of close dialogue between researcher and respondent, provides a particularly powerful way of uncovering narratives that reveal the motivations and meanings surrounding human interactions, and questionnaires can only ever more incompletely in this direction. However, by not requiring close and prolonged engagement with the research subject, the questionnaire offers opportunities to reach a wide range and great number of respondents, in particular through on-line applications, and to collect data on their lived experiences. This extensiveness and diversity makes questionnaires an important, contemporary research tool.

**KEY TERMS**

- closed questions
- co-construction of knowledge
- combination questions
- computer-assisted telephone interviewing (CATI)
- cultural safety
- mixed-method research
- open questions
- population
- pre-testing
- probability sampling
- purposive sampling
- sample
- sampling frame
- satisfying behaviour
- voice capture
REVIEW QUESTIONS

1. Why are open questions more suited to qualitative research than closed questions?
2. Why is the choice of the mode of questionnaire distribution specific to the nature of the sample and the nature of the research topic?
3. Why should we avoid 'closing' open question responses for the purpose of reporting findings?
4. What are the limitations of the use of questionnaires for qualitative research?
5. What are the particular benefits of administering questionnaires on-line?

USEFUL RESOURCES

SurveyMonkey.com. 2008. ‘SurveyMonkey.com—because knowledge is everything’. http://www.surveymonkey.com. This is a commercially available web-based interface for creating and publishing custom web surveys and then viewing the results graphically in real time.
University of Leeds, Information Systems Services. 2008. 'Tutorial documents.' www.leeds.ac.uk/its/documentation/top/top2.pdf. A general introduction to the design of questionnaires, including references to on-line support resources.

CHAPTER OVERVIEW

Discourse analysis is now a well-established interpretative approach in geography to identify the sets of ideas, or discourses, used to make sense of the world within particular social and temporal contexts. Discourse analysis is quite different from other qualitative research methods through its use of the challenging ideas of the French philosopher Michel Foucault. Following Foucault, discourse is a mediating lens that brings the world into focus by enabling people to differentiate the validity of statements about the world(s). The goals of this chapter are twofold. The first goal is to outline why Foucauldian discourse analysis is a fundamental component of geographers’ methodological repertoire. The second goal is to provide a methodological template. The chapter begins by outlining meanings of discourse. Foucault’s interest in discourse was to explain how those statements accepted as ‘true’ are always historically variable, being the outcome of uneven social relationships, technology, and power. According to Foucault, to believe at face value what one hears, reads, or sees as true would lead to the serious error of overlooking the social circumstances within which particular sets of ideas are produced, circulated, and maintained. Hence, discourse analysis offers insights into how particular knowledge becomes common sense and dominant, while simultaneously silencing different interpretations of the world. The chapter then outlines a methodological template to conduct discourse analysis. Examples are considered to illustrate why discourse analysis has many benefits for geographical research, particularly projects committed to addressing social and environmental injustice and challenging unequal power relationships.