Frequently Asked Questions

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Preparing for the Research

FAQ.1 What do I need to do to prepare for the research?

Conducting a research project is a long process that involves many stages, from the initial curiosity or idea to the final written report. The initial process of **identifying your research interests** is a vitally important one and integral to your future enjoyment of the research! Specific steps involved are further described in FAQ.2. Your research therefore begins well before you actually start collecting data: the preliminary stages of planning and practical groundwork are just as important in allowing the project to run smoothly. To ensure that you get the most of the later stages of data collection and analysis, there are a number of things you can do to prepare. The Appendix to Part I (pp. 69–72) also provides a useful guide for the development of a research study.

A good place to begin is by formulating your interests into a specific research question or questions. You need to have a clear idea of what exactly it is that you want to find out and how you are going to do it, because a project that lacks a clear focus is likely to go off track and be difficult to manage. To find out more about designing specific research questions, see Chapter 1 of the textbook (pp. 22–24) and FAQ.3 of the Student Researcher's Toolkit. Other important considerations for this phase of the research are elaborated in FAQ.4–6.

Next, decisions will need to be made about the type of data that you wish to obtain, and the source of that data. This part of preparing for the research involves selecting methods for data collection, recruitment, and sampling, which are further outlined in FAQ.7–10. For example, if you will be using a survey, questionnaire, or observation schedule in your research, it can be helpful to conduct a pilot study, in which you try out these instruments on a sample of people who will not be part of the final sample. You could give some of your friends a copy of your draft questionnaire and ask them whether they had any difficulty filling it in. This will help you to identify any problems with the length, question order, wording, and so on, which can be rectified before you send out the final questionnaire. You could also ask someone to review your questions when preparing for qualitative interviews to make sure they are easy to understand.

Other key decisions that you will need to think about are related to how you will access and recruit your sample: are there any "gatekeepers" whose permission you will have to seek out in order to negotiate access to the participants? Will you be able to find a comprehensive sampling frame of the population you are studying, and if not, what other, non-random, sampling strategies could you use? If you are not sure about the difference between random/probability and non-random/non-probability samples, look at Chapter 7 of the textbook and FAQ.9 of this Toolkit.

Finally, and perhaps most importantly, you will need to ensure that the project is a viable one in terms of ethical issues: Is it likely to cause any harm, physically or emotionally, to the participants? Will they be able to give informed consent to take part, and if not, can you justify a decision to use covert methods or otherwise deceive people? How are you going to ensure that the participants remain anonymous and that their data are treated confidentially? Do not forget that these questions are also relevant in research based on secondary analysis of existing data as well. For example, if you are analyzing personal diaries and letters, can the individual's identity (and those of their family and friends) be identified from the quotations you use, and will this be a concern? Are there any copyright issues you need to address before reproducing someone else's work? If you are analyzing the content of an organization's official documentation, would your publication of a critical analysis damage the organization or author's professional reputation? Thinking about such ethical issues early in the research process will help you to recognize your responsibilities as a social researcher: to yourself, your participants, and the academic community. You can find a detailed discussion of ethical issues in Chapter 3 of the textbook.

See also Vignettes 1, 5, and 6 in this Student Researcher's Toolkit.

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FAQ.2 How do I develop my research interests?

Social research is a unique field. It is perhaps the only discipline that allows for the study of anything and everything that involves human activity. Since all human activity is necessarily social, social researchers can be interested in any aspect of what humans do. As a result, social researchers are only limited by their own imagination and they can generate research projects based on a range of influ-

ences. These include: drawing upon personal interests and professional knowledge, reading the literature on a topic, adapting a pre-existing study, or using previously gathered secondary datasets to discover gaps in the knowledge base. In this section, we will concentrate on how you can use these influences to generate ideas for a project.

Generating projects from personal interests: Many projects simply emerge through a personal interest that the researcher has. For instance, they might have noticed something in their everyday lives that has puzzled them and wish to find out more. Similarly, they might have particular hobbies and interests that they want to explore in more depth. Or they may have seen an area that interests them in the media.

Consider the rationale given by a student researcher as a line of reasoning to rationalize her quantitative project:

> Canada has experienced an influx of immigrants from the Middle East and Asia in recent decades, with more and more newcomers now settling outside of urban centres. The media often assumes that residents of rural communities are more closed minded than those living in urban environments. If these perceptions are true, we would expect to find that immigrants who are members of minority cultures to have less welcoming experiences. In particular, they might report greater numbers of negative encounters within their community than those who live in urban centres. However, rural communities are also frequently depicted as friendlier because residents are more likely to interact with the same people on a regular basis and get to know one another. Using data from the Canadian Community Health Survey and the General Social Survey, this study will examine whether the nature of immigrants from minority cultures report differences in the frequency of negative social interactions across urban and rural settings, and whether the quality of social interactions improves the longer an immigrant lives in a community.

Having come to Canada as an immigrant from the Middle East, this student drew upon her personal experiences of navigating social interactions when developing the study.

The involvement of personal interests in the decision-making process about what, exactly, to research is also true of more established researchers. Canadian Sociologist James Popham—an avid technology user and music fan—drew upon his own interests in formulating his doctoral research

project about perceptions of deviance and risk related to digital music piracy. Similarly, many of the chapters featured in Ken Moffatt's 2012 book, *Troubled Masculinities: Reimagining Urban Men*, are written by those drawing upon personal experience as a starting point for research.

Generating projects from professional interests: Other projects, however, are developed through professional associations and experiences where the researcher might have had experience of working in a particular area. For instance, Canadian Sociologist Darrell McLaughlin has drawn on his past work in farming in his research that examined the experiences of farmers navigating organic farming in Canada and Sweden. Even things like retail, tattoos and piercing, and sports can be used as a basis for research projects.

Using the literature: Developing a working knowledge of the area in which you are interested is a crucial part of the process of "getting to know the field." While every researcher starts with an idea, each of us must develop that interest through further investigation of, and some familiarity with, related literature. Indeed, developing some "theoretical sensitivity" to the issues, theories, and debates presented in the literature is crucial to the process of developing narrowing down the topic and specifying a specific research question. FAQ.4 explores the process of reviewing the literature in further depth.

Adapting a pre-existing study: Another way to generate interesting research topics is to simply adapt a study of which you are already aware. You might want to employ a different methodological technique, introduce a different variable, use a more up-to-date dataset, conduct research in a different location, or even with a different age group or sample. All of these are viable methods to generate original research. A recent example of this in the literature relates to a study that Julia Johnson, Sheena Rolph, and Randall Smith conducted in the United Kingdom between May 2005 and April 2007. This involved replicating Peter Townsend's (1962) classic study *Last Refuge*. He depicted residential homes as being large, impersonal institutions that isolated older people from the outside world, thus robbing them of individual privacy and control, routinizing daily activities, and breeding poor staff attitudes. By employing the same techniques as Townsend in a different time, these researchers were able to replicate his research as a means for exploring how practices had changed over time. Unfortunately, they found that much remains the same in residential homes almost half a century after Townsend's research.

Exploring Secondary Datasets: You might also gain inspiration for research from pre-existing datasets that are available to you as a researcher. Secondary data generally refers to data that has been compiled by other individuals or organizations, often in the course of their daily activities, as in the case of crime statistics. Secondary data can also be data that is collected specifically by an external agency for the use of researchers and or policy-makers in whatever way they see fit. In Canada, Statistics Canada collects datasets on a variety of topics, including the Canadian Community Health Survey and General Social Survey Datasets. Statistics Canada believes in maximizing the use of the data it gathers, and therefore many datasets are free or available for an affordable charge to researchers. Here, students can find statistical information about various aspects of the Canadian population. Several universities also collect large amounts of quantitative data as well that students and other researchers might find more convenient and cost-efficient to analyze, rather than collecting their own survey data. The Organization for Economic Co-operation and Development (OECD) also provides datasets at a global level.

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FAQ.3. Why do I need specific research questions?

Research questions help to focus your attention on a specific problem or issue within a broader topic area. This applies equally to quantitative and qualitative research strategies; although the latter can be quite open-ended, it is always a good idea to be clear about what you want to find out and why. As Bryman and Bell say in Chapter 1 of the textbook, research questions help you to search the literature more effectively, choose an appropriate methodological design, focus your data analysis, and structure your written report. The process of devising research questions usually begins with determining a general area of interest, such as "women in science," which may be inspired by personal interest in a topic, emerging social problems and events in the news, or theoretical hunches that have emerged from your background reading, as outlined in FAQ.2.

You then try to narrow down your subject area to a more focused, specific question that you could realistically research. An example would be **"What kind of social barriers to career advancement do women scientists face in the profession of dentistry?"** Research questions should be clearly defined, grounded in the relevant theoretical literature, and capable of being developed into a plausible research design. They should be neither too broad nor too narrow, and should take into account

any limitations on the amount of time, money, and access that you have to the proposed target population or research setting. Good research questions—sometimes called objectives—provide a purposeful direction for your research. In addition, effective research questions include key details about the study, such as the specific concepts of interest, the target population or data source, and setting in which the research will be conducted. The process of refining research questions is explained in Chapter 16 of your textbook, whereas examples of these can be found in Chapter 1 of your textbook and Research Example 3.

As you develop the research questions, you should bear in mind the following questions:

- Why is the project an interesting and important thing to do?
- What has been said in the area before?
- What has not been said in the area before, and why is it important that this issue is addressed?
- What will this project accomplish?

See also Vignette 1 and 2 this Student Researcher's Toolkit.

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FAQ.4. How do I find out about the literature on my topic?

The literature review serves two main functions within a research project, as noted in FAQ.2 and in the Appendix to Part I of your textbook. First, it demonstrates to the reader (including your supervisory committee and external examiner) that you have read a comprehensive amount of literature related to your subject area, and can locate your research questions within a wider theoretical context. Second, it helps you to sharpen the focus of your research design by clarifying what has already been found out and where the gaps remain in the literature: what exactly remains unknown about the topic, and why is it important? You can locate the books and articles most relevant to your topic by conducting a literature search: this typically involves typing keywords into a library catalogue, computer database, or Internet search engine. Chapter 16 (pp. 360–372) contains some useful information about accessing online bibliographical databases, such as Sociological Abstracts, Family & Society Studies Worldwide, the Canadian Periodicals Index Quarterly, and Social Science Citation Index. These databases and others are usually accessible through your institution's library server. When searching, try to in-

clude a variety of keywords and combinations of terms (e.g. "shy" OR "shyness," or "shyness AND gender"), and think laterally about some alternative words to try if your search returns no hits.

The literature review is often a long process, stretching out over several weeks and months, and so you may find it helpful to keep a record of which search engines you have used and which combinations of keywords you have searched with. You should certainly make some notes about everything you read, perhaps on index cards or separate computer files: note down the bibliographic details of the source, the key points the author makes, and write a memo to yourself that explains how the text relates to your research questions. When it comes to writing up your literature review chapter, you can group these summary records into categories (by theme, in chronological order, by cultural context and so on), and arrange them in a logical order to discuss. Some researchers choose to create a table (or several tables according to topic) to document key pieces of information and make comparison across studies convenient.

Do not forget to critically evaluate what you are reading, rather than simply describing what you have read: think about strengths or limitations of a study's methodology, the credibility of the conclusions, and any theoretical ideas the author may not have considered. By conducting an appropriately critical literature review, you can learn from other people's mistakes, consider different ways of looking at your research topic and question(s), and refine the interpretation of your data. A good research project should be both grounded in a relevant body of literature and able to say something new: you cannot know whether your ideas are fresh and original until you have seen what is already out there! The aim of a literature review is to show your reader that you have read and understood the main published work concerning a particular topic or question in your field. A good literature review demonstrates your mastery of your topic and is much more than a summary of relevant literature. While summarizing relevant literature is essential, your review should go beyond this in two respects. It requires a *synthesis* of the literature, not merely a summary. It is meant to be *critical*, especially with respect to previous research in the area.

See also Vignette 2 in this Student Researcher's Toolkit.

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FAQ.5. How do I get an overall picture of research in my area?

Sometimes a researcher will want not only to explore the literature on a given topic, but also to summarize and evaluate it. Different forms of literature reviews exist, but "systematic reviews" are commonly used in the context of large scale, empirical, quantitative studies. For example, in medicine, researchers may seek to evaluate the effectiveness of a new treatment intervention for a particular disease. They do this by reading through all of the reports of studies they can find on this new treatment to get an overall picture. The review is intended to be exhaustive—that is, rather than only looking at a sample of studies, the reviewer considers every study that is relevant to the topic and evaluates all of them, or as many as possible. In this way, systematic reviews are supposedly unbiased: the reviewer designs a set of criteria that will determine whether or not a study should be included, and then carefully searches the relevant scholarly literature. They keep an audit trail of everything they have done, so that the procedure can be replicated. Given the scope of most student projects, it is unlikely that you will need to conduct a systematic review, but it is worth taking some time to find out about this technique so that you can develop a more critical, evaluative stance towards the literature you are reviewing. Reading about other types of reviews, such as narrative reviews, that are less rigorous than systematic reviews, but are a means for establishing background on a topic. See the latter two rows of the table presented in FAQ.8 for further details about these two types of reviews.

See also Vignette 2 in this Student Researcher's Toolkit.

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FAQ.6. How do I ensure I am conducting ethical research?

In practice, ethical considerations can arise at various stages of the research process. However, it is important to consider potential ethical issues prior to commencing a project. In fact, universities would rarely allow students to undertake empirical research without going through an ethics review process organized by the institution. In addition, it is expected that social scientists and researchers from other disciplines abide by the [Tri-Council Policy Statement (TCPS2) on Ethical Conduct for Research Involving Humans](), most recently updated in 2014. Contemporary approaches to ethical issues in research can be dated back to the Second World War and the abuse on Jews in the name of

scientific investigation. This led to the Nuremburg Code (1949) which set out what were to become the basic principles for research on human beings. Many of these characteristics are present in current ethical guidelines, although it was superseded by the Declaration of Helsinki, which sought to balance the interests of research subjects with the need for scientific research.

Ethics can be thought of as a set of rules by which individuals and societies maintain moral standards in their lives. The Tri-Council Policy Statement (2014) emphasizes that researchers have a responsibility to respect and protect research participants across all phases of the research process, including when preparing for the research, during data collection, and when sharing and publishing the research findings. There are several key ethical considerations to which researchers need to adhere, including issues around informed consent, anonymity and confidentiality, and avoiding deception and harm. The basis of informed consent is making sure that people who are going to take part in the research understand what they are consenting to take part in. Although this sounds obvious, there are a number of issues to consider. For instance, how does this work with children or people with intellectual disabilities? Should this the participant be asked for consent, or the parent, guardian, or caregiver? Also, there may be times when you do not want people to know the exact purpose of your research or that they are being researched at all, such as in the case of covert ethnographies. Your supervisor should assist you in identifying specific ethical issues to consider and with making tricky ethical decisions.

An information sheet can be provided to participants to explain what the research involves. The tone should be friendly but informative. It can be, in many cases, your first form of contact and introduction to a research respondent or participant. It is important to outline what the research is about, the general objectives, and what participation involves. Noting that research participation is voluntary is also very important, as is being clear about who is carrying out the study and providing contact information. See Research Example 2 to see what one of these might look like.

Once an individual has indicated their interest in participation, it is common to ask them to complete an informed consent form. This is especially the case in qualitative interview research, but might also be necessary in structured interview or observation research. An informed consent form should include all important details of a study, including common ethical concerns such as any risks or benefits, how privacy will be maintained, and how the data will be used, unless this has already been covered in the information sheet. It is a good idea to request written consent when possible,

with both the participant and researcher acknowledging the contents with a signature. Participants should be given a copy of the consent form to keep, and then it can act as a contract between the researcher and the participant, helping to build trust. See Research Example 1 for an example of an informed consent that was used in one research study. Your ethics review board might also have templates for consent forms that can help you to develop one.

It is common for researchers to want to offer anonymity to their participants. This refers to the protection of participants from being identified as part of the study. This ensures rights to privacy are respected and that any information provided cannot be used to identify specific individuals. The most effective way of ensuring anonymity is by not collecting identifying data, as is common in survey research. However, this is not always possible, such as when a researcher needs access to an individual's details to make contact with them. In these cases, researchers can only keep participants' identities confidential, rather than anonymous. The principle of confidentiality overlaps with that of anonymity, since both are concerned with maintaining the privacy of participants. Because some of the participants' personal information is known by the researcher, confidentiality is concerned with ensuring that information or contributions to the data cannot be linked directly to them. Alphanumeric codes or pseudonyms can be used to maintain confidentiality. It may also be necessary to change other details, like the names of places or other people.

There are certain groups where extra thought is required when planning social research. It is important to note at the outset that "vulnerability" is an imposed category that some "vulnerable" groups would challenge. While this needs to be acknowledged, it is generally held that vulnerability refers to those individuals or groups who, due to age, ill-health, infirmity, minority status, or their otherwise disempowered position in society, may be open to exploitation (whether physical, emotional, or psychological). In many cases, research that involves "vulnerable" groups requires special considerations and more thorough review, which can be referred to as "above minimal risk." Research involving Indigenous people and communities might also require additional steps to obtain ethical approval, as outline in Chapter 9 of the Tri-Council Policy Statement.

Above all, it is important to ensure that participants are safe from harm. You need to think about potential ramifications of your research. For instance, if the research is about street gangs and confidentiality is not ensured then this may create a physical risk. Psychological harm can be difficult, especially

when researching sensitive topics. Most of us are not trained as counsellors or to deal with certain reactions. It is often worth providing participants with contact details of people who could support them if needed, and making sure they are aware that they are not obligated to answer questions they do not want to and can withdraw at any time without penalty. University-based researchers do not usually fall under the obligations of the [Personal Information Protection and Electronic Documents Act](), which governs data privacy for commercial organizations. However, it remains important for researchers to understand the regulations surrounding the collection, use, and disclosure of personal information to ensure that it is kept safe from unauthorized access, accidental loss or destruction, and not being kept for longer than is necessary for that purpose.

You can find more information about ethical issues in Chapter 3. See also Vignettes 5 and 6 in this Student Researcher's Toolkit.

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Designing the Research

FAQ.7. What is the difference between quantitative and qualitative research?

In Chapter 1 of the textbook, Bryman and Bell distinguish between quantitative and qualitative **research strategies**, or general orientations to the conduct of social research. In practice, there can be overlap between the two, as quantitative researchers incorporate elements of qualitative methodology into their research design, and vice versa: this is one form of **triangulation** (see Chapter 14). Nevertheless, you may find that you gravitate towards one or other of the research strategies, either because of the nature of your topic or because of the ontological and epistemological positions associated with quantitative and qualitative research (if you are not sure what this means, have a look at the multiple choice questions for Chapter 1).

If you are following a **quantitative** research strategy, you will want to test out a theory deductively, using techniques of measurement that produce numerical or statistical data. If you are using

a **qualitative** research strategy, you will be more interested in inductive theorizing about the way individuals interpret their social worlds, and your data will probably be in the form of words and text. This general difference between the two approaches is reflected in the sequence of steps involved in carrying out each type of research:

The process of quantitative research (see Chapter 4 and Appendix to Part I, pp. 69–72)

1. Theory
2. Hypothesis
3. Research design (see Chapter 2 and its multiple choice questions and website links)
4. Devise measures of concepts (see section in Chapter 4, pp. 76–81 of the textbook)
5. Select research site(s)
6. Select research subjects/respondents (see Chapter 7 and its multiple choice questions and website links)
7. Administer research instruments/collect data (see Chapters 5 and 6).
8. Process data
9. Analyze data (see Chapter 8 and its multiple choice questions and website links, and the Appendix)
10. Findings/conclusions
11. Write up findings/conclusions (see Chapter 15 and its multiple choice questions and website links)

The process of qualitative research (see Chapter 9 and Appendix to Part I, pp. 69–72)

1. General research questions (see Chapter 1)
2. Selecting relevant site(s) and subjects (see Chapter 10 and 11 and their multiple choice questions and website links).
3. Collection of relevant data (see Chapters 10–12)
4. Interpretation of data (see Chapter 13 and its multiple choice questions and website links).
5. Conceptual and theoretical work (see Chapter 13)
   a) Tighter specification of the research question(s)
   b) Collection of further data
6. Write up findings/conclusions (see Chapter 15 and its multiple choice questions and website links)

See also Vignette 3 in this Student Researcher's Toolkit.

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FAQ.8. Which method(s) should I choose?

There is no easy way of answering this question. The most appropriate research design for your project will depend on a number of factors, such as the nature of the topic, your personal preferences, skills and experience, how much time and money you have, any restrictions on gaining access, and ethical issues. Choosing a method or combination of methods is an important part of any research design, and you need to think carefully about the options available. Here are some hints and tips:

Method	Advantages	Disadvantages
Structured interviewing	• Reduces error caused by interviewer variability • Can be administered by telephone, and computer-assisted • Data are standardized so easier to process	• Lack of flexibility in question order and content • Lack of insight into respondents' subjective meanings • Response sets (see p. 105 in textbook)
Self-completion questionnaires	• Relatively cheap and quick to administer (no travelling required) • Absence of interviewer effects • Convenience for respondents	• Cannot probe or prompt • Difficult to ask many questions (respondent fatigue) • Greater risk of missing data • Lower response rates
Structured observation	• Direct observation of behaviour • Overcomes some of the problems of survey research (see p. 134) • Observation schedule standardizes procedure and allows you to compare cases	• Can be difficult to design and follow a complex schedule • Problems of ensuring reliability (inter- and intra-observer consistency) • Problems of validity (reactive effect)
Secondary data analysis	• Can utilize high quality data collected by other researchers • Opportunity for longitudinal, cross-cultural and subgroup analysis • Relatively cheap and (sometimes!) quick • Re-analysis may offer new interpretations	• Lack of familiarity with data and methods • Datasets can be large and complicated • No control over data quality • Absence of key variables that you may want to study
Ethnography / participant observation	• Seeing through the eyes of the people being studied (prolonged immersion in the field) • Find out what people *actually* do, rather than what they *say* they do • Deeper understanding of meanings and context of behaviour in a particular setting	• Covert observation can be unethical, dangerous, and impractical (see pp. 218–220) • Problems in gaining access to both open and closed settings • "Going native" and difficulties of leaving the field

Semi- or unstructured interviewing	• Flexibility: questions can be tailored to each interviewee and diverging from original topic can be encouraged • Deeper understanding of participants' values, views, and meanings • Rich, detailed qualitative data • Interview guide can help with thematic data analysis	• Difficult to replicate: each interview is unique • Difficult to make direct comparisons between individuals • Interviewer variability • Lack of rapport may make interviewee reluctant to disclose information
Focus groups	• Provides an insight into the way people collectively make sense of phenomena and how lay knowledge is generated • Allows you to study a group's styles of talk and interaction • Interviewees challenge each other and so clarify their views	• Researcher may not have control over proceedings • Group effects: dominant and reticent members, social desirability, and "groupthink" • Difficult to transcribe many voices at once • Often based on small samples, so difficult to generalize findings
Content analysis	• Transparent and replicable procedure if done quantitatively • Unobtrusive method (Webb *et al.* 1966) • Longitudinal research possible • Access to large sample of cases and "difficult to reach" social groups	• Documents may not be authentic, credible, etc. (Scott 1990; see p. 273) • Value judgements may affect design of coding manuals and interpretation of texts • Can be unclear what to analyze • Risk of being descriptive and theoretical
Conversation or discourse analysis	• Appreciation of the structured nature of language in interaction • Useful for uncovering rhetoric and dominant constructions of social phenomena • Can use existing textual materials so relatively quick and cheap	• Easy to collect or try to analyze too much data • Need to learn notation symbols • Problems of interpretation when transcribing recorded conversations or pre-existing transcripts • Can raise concerns of being too subjective or biased
Document analysis	• Data have already been produced so may save time and money • Personal diaries and letters provide insight into the lives of people who are no longer alive or otherwise difficult to access • Mass media outputs can be critically deconstructed • Analysis of official documents can reveal power dynamics • Visual data provide a new focus for analysis	• Need to evaluate quality of documents: authenticity, credibility, representativeness, meaning (Scott 1990; p. 273) • Can raise concerns of being too subjective or biased • Lack of transparency in analysis process and can be difficult to replicate procedure

Systematic review	• Comprehensive and exhaustive: avoids selection bias • Provides overview of research in a field • Transparency: reviewer leaves an audit trail, which can be replicated	• Time consuming • More suited to quantitative research: may not be applicable to evaluation of qualitative studies
Narrative review	• Provides a background of research in a field • Provides a platform for research	• Can appear rather unsystematic or haphazard • Difficult to reproduce • Of questionable comprehensiveness

See also Vignettes 4 and 5 in this Student Researcher's Toolkit.

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FAQ.9. How do I recruit a sample of research participants?

If you are hoping to analyze any kind of *primary* data (data that you have collected yourself for the purposes of the project), then you will first need to decide on a sample of people or other data sources to include in your study. The number of people or other data sources you seek to include will depend on your research strategy: if you are conducting quantitative research, a relatively large sample (usually 100+) will help you to generalize your findings, whereas if you are conducting qualitative research, you may be more interested in uncovering more rich and detailed information from a smaller sample of cases (often between 1 and 30 is common).

There are various techniques that can be used for sampling; these are discussed in Chapter 7 of the textbook. We can make a broad distinction between **probability sampling**, in which each unit of the population has an equal or known chance of being selected, and **non-probability sampling,** in which some units of the population have a greater chance of being selected than others. The former group of techniques includes simple random, stratified random, systematic, and multi-stage cluster sampling, while the latter group includes convenience, snowball and quota sampling. If you are not sure about the differences between these types of sample, you can test yourself with the multiple choice questions for Chapter 7.

Your sample may consist of something other than people, of course. If you are doing a project based on structured observation, you may need to sample units of time, types of event, places, or settings, and so on (see Chapter 6). If you are conducting a content analysis of documentary data, such as personal letters or photographs, you will need to decide which of these objects to include in your sample and which to leave out (see Chapter 12). And if you are analyzing the content of mass media outputs, you will need to identify the sources you want to consult (specific newspapers, magazines, and so on) and use either a probability or non-probability sample to select "units" within these: particular news stories, articles, and so on (see Chapter 12).

Finally, when it comes to writing up your research report, do not forget to explain how and why you devised your sample. There are no absolute rules about the "ideal" number of people to interview or the "best" way to find a representative sample to survey, but it is important that you justify whatever decisions you made so that the reader can see that your methodology was carefully thought through. See also Vignettes 4 and 5 in this Student Researcher's Toolkit.

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FAQ.10. What kind of questions should I ask?

A great deal of social research revolves around asking people questions: these may refer to the factual information, beliefs, attitudes, knowledge, and values that they hold. If you have decided to use a survey method such as structured interviews or self-completion questionnaires, you will need to decide in advance exactly what questions you want to ask and how best to phrase and order them (see Chapter 5 of the textbook for guidelines for designing questionnaires). If you are using qualitative interviews (semi-structured or unstructured), you may prefer to prepare an interview guide or just list the main topics that you hope will be covered (see Chapter 11, especially pp. 241–247). The content of the questions will depend upon your subject area, of course, but there are certain types of style and form that questions can take in all kinds of social research:

- **Open questions** are those that allow respondents to answer in their own terms, often at length. They allow more flexibility for participants to interpret the question in the way they wish, and so are often used in qualitative research.

- **Closed questions** are those that provide a limited range of possible answers for the respondents to choose between. Researchers must sure the possible answers are mutually exclusive and exhaustive. They produce data that are easier to code and analyze comparatively, and so are often used in quantitative research.

- **Vignette questions** are presented in the form of a hypothetical scenario, such as a story about two or three fictional characters in a social situation. Participants are given the vignette to study and then asked open or closed questions about how they think these characters could or should behave. This is a good way of finding out about people's normative judgements, values, and attitudes without being too intrusive, and can also be a useful tool for focus group research.

Designing questions is one of those tasks that may sound straightforward but is actually quite difficult to do well. You may find it helpful to run a **pilot study** of your questionnaire or interview schedule to check that all the questions make sense to people and that you have covered all the relevant topics. Here are some basic tips for designing questions:

- Avoid ambiguous terms, such as *often* or *regularly*, which people can interpret differently
- Avoid leading questions, which suggest an appropriate or desirable way of answering
- Avoid jargon (technical terms that people may not understand)
- Avoid long questions
- Avoid double-barrelled questions (ones that ask about two things)
- Avoid questions that are too general
- Make sure there is a balance between open and closed questions in a survey or questionnaire: too many of either kind can be frustrating for respondents
- Make sure that closed questions give a wide enough range of answers to choose between (include an *other* or *don't know* category if necessary)

Examples of each of these points can be found in Chapters 5 and 11 of the textbook. You may also like to test your knowledge with the multiple choice questions for these chapters.

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Conducting the Research

FAQ.11. What is the role of my supervisor?

If you are carrying out your research project as part of a higher education degree, you will probably have been allocated to an academic supervisor at your institution. There is a brief discussion of the purpose of academic supervision in Chapter 16 of the textbook (pp. 362–363). Ideally, your supervisor will be someone who is an expert in your subject area, methodological approach, or both. At the very least, they will likely have had some relevant experience in conducting research and be able to give you some general guidance. Your supervisor is one of many "resources" you can use to make your project more successful: they are there to provide practical advice and suggestions such as guidance on how to design a questionnaire or recruit a sample of people. Your supervisor might also contribute theoretical knowledge to enhance your literature review and inform your analysis of the data, give feedback on your written work, and offer general support and encouragement.

How often you see your supervisor will depend on their availability, your institution's requirements, and how much guidance you think you need, but in a project spanning one year, it is not unreasonable to expect meetings every three to four weeks. Try to bring something with you to discuss at every meeting: this could be a draft chapter, a record of what you have been doing since the last meeting, a list of problems or challenges you are facing, or a "brainstorm" of ideas about what to do next. Your supervisor may also set up a meeting to provide you with some feedback on your written work as you go along. Do not worry if they make some critical comments: these are intended to be constructive and provide you with helpful suggestions for improving the work. Constructive criticism is not a personal attack against you; it is a normal and valuable part of academic life. Similarly, if you are getting behind in your work or feeling stuck, do not be afraid to seek out your supervisor and ask for a meeting. They will not mind helping you work out what to do next—it is their job—but they will worry if they do not see you for months at a time. So, it is best to keep in regular contact with your supervisor, listen to what they say, and not be afraid to ask if there is anything you do not understand. For a more detailed (and entertaining) account of what supervisors and students can expect of each other, see Sara Delamont, Paul Atkinson and Odette Parry's excellent book, *Supervising the Doctorate* (Open University Press, 2004).

See also Vignettes 1 and 3 in this Student Researcher's Toolkit.

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FAQ.12. How much time should I allow for the project?

Most research projects take longer than you expect, and it is easy to get carried away with an exciting idea only to find that you are running out of time. When designing your research, therefore, it is important that you think realistically about what you can do with the time, money, and other resources that are available to you (see Chapter 16 of the textbook, especially p. 363). This is also why your research questions need to be specific: if you only have a limited number of months in which to complete the project, you cannot afford to waste time going off track and doing irrelevant work.

A **timetable** can be an extremely valuable tool for keeping you focused on your research questions and making sure that you remember to do all the important tasks. You should map out a draft timetable right at the beginning of your research project, as soon as you find out your institution's rules about deadlines, component parts of the written report, word/page length, and so on. It is also good to brainstorm any foreseeable issues that could arise, such as difficulty recruiting during summer holidays. The timeline does not have to be a definitive plan, of course: you will probably need to revise the timetable as you go along, because every researcher comes up against unexpected problems and pitfalls. The main thing is that you remain aware of what needs to be done, how much time you have, and whether you are managing to stay on track for your deadline. It is much better to realize early on that you are having problems and go and see your supervisor than procrastinating and having a last minute panic. When designing your timetable, remember to allow enough time for every task there is to complete: waiting for questionnaires to be returned or negotiating access with gatekeepers can take longer than you think. Meanwhile, the literature review should be an ongoing process of reading and revisiting ideas, and keeping up to date with new research in the field. And do not forget to allow plenty of time for writing! It is dangerous to leave your written report until the end, because your first draft will be your final draft and may be messy, rushed, and poorly written. Try to write up sections of literature review as you go along and analyze your data as you collect it.

You may find it helpful to keep a **log book** or **research diary** to record all the practical steps that you went through, as well as things that you learned along the way. It is much easier to write up a methodology chapter if you have something like this to remind you of what you did, when, and how.

There is no right or wrong way of planning your time: it is up to you to design your timetable according to your deadlines, institutional requirements, and personal style of working. However, you may find it helpful to look at the example below of a sensible and realistic time plan for a hypothetical research project. This sample timetable refers to a fictional thesis project about swimming pool attendants' attitudes towards body image and the "fitness industry." This is the kind of project that might have been carried out by an undergraduate student in the fourth year of their degree program, and with very limited financial resources. You may find it helpful to study this timetable and adapt it to your own research plans, in discussion with your supervisor.

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Key to tasks:

1. Discuss initial ideas with supervisor
2. Other meetings with supervisor
3. Literature review
4. Make list of local swimming pools (sampling frame) and write to managers to negotiate access to pool attendants. Wait three weeks for replies; follow up non-respondents with phone calls. Devise sample of individual attendants from each pool that has agreed to participate.
5. Write personal letters to each pool attendant, requesting an interview. Enclose stamped addressed envelope and ask for reply within three weeks. Arrange times for interviews with those who agree to participate.
6. Write interview schedule/topic guide for semi-structured interviews.
7. Conduct 15 semi-structured interviews with pool attendants.
8. Transcribe interviews.
9. Analyze interview data using NVivo.
10. Write drafts of methods chapters, literature review, and findings.
11. Write first draft of whole thesis and give to supervisor.
12. Revise project report in light of supervisor's comments. Submit in time for deadline.
13. Write to thank interviewees for taking part in the project, and include summary of findings.

See also Vignette 7 in this Student Researcher's Toolkit.

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Data Analysis and Writing Up

FAQ.13. What is the best way to analyze my data?

The answer to this, of course, depends on what kind of data you have and how much there is of it. Quantitative research tends to be interested in the explicit measurement of social phenomena—attitudes, values, demographic characteristics, and categories of behaviour—and how such phenomena may be patterned or not. This means that it tends to operate with an objectivist epistemology, which assumes there is a world "out-there" that can be measured with a degree of accuracy. This is why some people characterize quantitative research as being positivistic—the so-called "science of society"—as it is often considered to treat the social world in the manner that a scientist might investigate the physical world.

If you have collected quantitative data in the form of numbers, rates, or percentages, you may want to perform some statistical tests on them. Chapter 8 of the textbook takes you through the various kinds of tests you can use. There are **descriptive** statistics, presented in frequency tables, pie charts, and histograms, which summarize the distribution of the data on a single variable. In addition, there are **inferential** statistics, which assess the significance of an inferred relationship between two or more variables (bivariate or multivariate analysis, respectively). You can conduct these tests by hand or using a statistical software program like SPSS—see Appendix A of the textbook for more help with this. Quantitative data analysis can seem very complicated and intimidating, but it is worth learning the basic principles at least, so you can understand studies that you read about. To review introductory ideas about area of research, take a look at the multiple choice questions and website links that accompany Chapter 8.

Qualitative data analysis is sometimes (unfairly) regarded as the "softer" option, but it can be just as rigorous and demanding as quantitative analysis. It is based more upon intuition and creative, lateral thinking, and so is particularly useful if your data take the form of words, images, sounds, and other kinds of text. Chapter 13 takes you through the theoretical principles behind qualitative data analysis, including the key steps related to general qualitative analysis, grounded theory, and narrative analysis. Grounded theory is the approach that suggests that we should allow ideas and concepts to emerge out of the data, through the process of **analytic induction**. In practice, this means that you read

through your data carefully and try to identify any patterns or themes that hold it all together, then use these themes to **code** the data in a meaningful way. By working out the conceptual links between codes and categories in the data, you will be able to develop a theoretical model to explain your findings. This too may sound a little daunting, but it can actually be enjoyable! Qualitative data can be analyzed by hand (using coloured pens for example) or by computer. Appendix A teaches you about NVivo, one of the most widely used software packages in this area. There is no "right" or "wrong" way of analyzing this kind of data because it is based so much on subjective interpretation, but ensure that theoretical claims made in your research report are backed up by concrete examples from the data.

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FAQ.14. How should I structure my research report?

"Writing up" is an essential part of any research project. However exciting and interesting your research might be, there is no point in carrying it out if you do not communicate the findings to other people in your field. It is important that you start writing early and allow plenty of time for preparing drafts of your work as you go along. Your supervisor will be able to give you some helpful comments and feedback that will improve the final version of your report (see FAQ.11. and FAQ.12. of the Student Researcher's Toolkit for more information).

You should try to write in a persuasive style, convincing the reader of your arguments about why the topic is important, where the gaps remain in the literature, why you have interpreted your data in the way that you have, and so on. Avoid using offensive forms of language. See the discussion in Chapter 16 for more on this topic, or consult the resources related to equity issues compiled by The Canadian Sociology Association when you are writing your report (http://www.csa-scs.ca/equity-issues).

In terms of sections to include in your project write-up, this will depend upon your institution's requirements, but there are some components that can be found in almost any research report. These can be summarized as follows, and you can find some more detailed advice about each section in Chapter 15 of the textbook.

Structure of a thesis:

- Title page
- Acknowledgements
- Table of Contents
- Abstract
- Introduction
- Literature review
- Research methods
- Results
- Discussion
- Conclusion
- Appendices
- References

Keep in mind that the title is the first thing people see about your report. This makes it particularly important that your title is eye-catching and accurately captures the content of the report. It should be concise, informative, and generate interest in the study by conveying what it is about, where it took place, and who it included. If the title is too long and complex that can be problematic for keeping readers focused, and if too short it is unlikely to suitably convey the questions being explored. Here are a couple of examples:

> "Tequila, takeout, and traffic cones: An investigation of Canadian university students' drinking behaviour"

> "The forgotten children? Unaccompanied asylum-seeking children and the role of social workers in ensuring their voice is heard in British Columbia's social services policies"

In both of these examples the who, where, and what are clearly expressed.

In Chapter 15 of the textbook, Bryman and Bell outline the similarities and differences between written reports of quantitative and qualitative research. These are summarized below. If you are unsure about which style to follow in your writing, take another look at FAQ.7 of the Toolkit to determine which research strategy you have followed, and try the multiple choice questions that accompany Chapter 15.

Quantitative research reports usually include:
- Preliminaries (title page, acknowledgements, contents, abstract)
- Introduction
- Theory
- Data
- Measurement
- Methods and models (often descriptive, factual, and impersonal)
- Results (usually one section)
- Conclusions
- Appendices
- References

Qualitative research reports usually include:
- Preliminaries (title page, acknowledgements, contents, abstract)
- Introduction
- Literature review
- Methodology (often detailed, reflexive, and personal)
- Findings and Discussion (can be multiple sections)
- Conclusions
- Appendices
- References

See also Vignette 7 in this Student Researcher's Toolkit.

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FAQ.15. How should I reference other people's research?

When conducting a literature search, it is important to keep a record of the bibliographic details for every book, article, report, and so on that you read. This will help you to prepare a comprehensive and accurate list of references to put at the end of your written report. The kinds of bibliographic details you should record will typically include the author, title of the piece, date of publication, and title of the journal or book if an article or chapter, as well as the location of publication and publishing company if a book or report. If you plan to quote the author directly or paraphrase their ideas on a particular subject, you should also note the page numbers that correspond to the relevant sections. The purposes of referencing are twofold. First, by providing as much information as possible about a source, you make it easier for your readers to locate the text and read it for themselves. Second, it

is something we do for ethical reasons: it is courteous and shows academic integrity to acknowledge the source of any intellectual ideas, techniques, and arguments you have used that you did not devise yourself. Therefore, referencing shows a respect for the principles of intellectual property rights and copyright laws, and helps to reduces the risk of plagiarism (using somebody else's ideas without acknowledging them and passing these off as your own).

There are several types of referencing systems that vary depending on discipline. There are two dominant ways of including references in your text: one is to include a brief citation with the name of the author(s) and year of publication in the main body of text along with a complete reference list at the end of the text; another involves including superscript numbers in the main body of the text to refer the reader to either footnotes or endnotes with complete bibliographic information. Referencing systems that follow the first format include APA, MLA, and Harvard styles, whereas the latter is often labelled as numeric referencing or the Vancouver method. The numeric system is designed to make the text appear less cluttered, but the author name and year format is much more common. Both systems are acceptable, providing you are consistent in using the same one throughout each piece of writing. Therefore, you should use the system that your own institution or discipline prefers. Most higher education institutions offer resources about referencing, such as these provided by Simon Fraser University (https://www.lib.sfu.ca/help/cite-write/citation-style-guides).

You may also need to reference some sources that do not fit the conventional style of bibliographic publications, such as websites, television programs, films, and newspaper articles. Again, your institution may have preferred referencing styles for these, but a general rule of thumb is to provide as much information as possible to enable the reader to locate the relevant source. For example, references to websites should include the URL (address), organization or author name, title of the web page, and the date you accessed it. Newspaper articles can be referenced like journal articles (author, month and date, title of article, name of newspaper, and date of publication). Television programs or films may be listed by the producer or director's name, followed by the title, the date of broadcast, and the production company (e.g., CBC).

Learning to reference correctly can be difficult, and is likely to be a skill that you will develop over time through repeated practice and reading. The best way to understand how each system works is to look at the bibliographies of published books and articles, and think about how their reference lists were constructed.