3.2

ANALYSING QUALITATIVE DATA

Robert Mark Silverman

Introduction

Qualitative research methods are often overlooked in planning education. This is particularly true in professional degree programmes in the United States. Consequently, many students and professional planners learn qualitative research skills through trial and error, with little guidance from educators and professional organizations. This chapter provides one mechanism to address this deficiency in planning education by identifying core aspects of qualitative methods that students and professional planners should be aware of. The qualitative methods identified in this chapter are accessible and adaptable, and can be applied in conjunction with other research techniques traditionally applied to planning practice.

The emphasis on brick and mortar projects and other forms of physical development in the planning profession is one reason that qualitative research has been absent from professional degree programmes in the United States. The imbalance between quantitative and qualitative research has become less pronounced in recent years due to heightened interest in the social dimensions of planning. This interest had grown as planners have given greater consideration to equity issues and advocacy in planning (Davidoff, 1965; Krumholz & Forester, 1990). Subsequently, there is a growing need to collect data that reflects the perspectives of multiple constituencies affected by planning decisions. Qualitative methods are well suited to account for social dimensions and egalitarian goals in plan making. Epistemologically, qualitative methods are designed to uncover deeper meanings in social processes (Brewer, 2000; Saldana, 2011). Because of its focus on the discovery of social meaning, qualitative research is essential for contemporary planning practice.

This chapter discusses the application of core qualitative methods to planning practice. The methods identified in this chapter do not make up an exhaustive list, but provide a foundation for the acquisition of additional skills in qualitative analysis. Topics covered in the chapter include: field notes and field observations, semi-structured interviewing, and focus groups. Each topic is discussed in the context of planning practice. Less attention is paid to gaining access to field research settings in this chapter, because the nature of planning research tends to entail fewer barriers to entry in a research site. This is especially true when planners are engaged in applied research related to their professional duties.
In some cases, planning students find it difficult to gain access to some forms of qualitative data. This is often the case when they attempt to interview public officials or gain access to non-public settings in local government or other organizations. In such cases, it is important for students to establish rapport with gatekeepers in agencies and organizations they wish to study. Strategies for gaining access to research sites are discussed extensively in qualitative texts by Lofland et al. (2005) and Berg and Lune (2012). Those texts and others can be referenced for additional information.

Each topic covered in this chapter ties into the broader framework of qualitative and mixed-methods research that students and planners draw from. For instance, the skills used in these core areas are applied to students’ and planners’ interactions with the public in the context of community meetings, charrettes, and other venues designed to enhance public participation and input in the planning process. Qualitative methods are central to the data collection process that informs the development, implementation, and evaluation of public policy. This is particularly true when participatory action research and formative evaluation techniques are used.

One of the advantages of qualitative research is that it makes the results from data analysis more accessible to a broad spectrum of individuals and groups in society. As a result, some argue that it is a democratic and empowering approach to data collection and analysis. Qualitative research also captures nuances of public life and urban development processes that other research methods do not. This adds texture and authenticity to research and policy recommendations which facilitate efforts to create sustainable plans focused on creating amenities that people value in their communities.

Qualitative analysis is also advantageous because it applies a relatively universal set of analytic techniques to the various types of data collected during the research process. These techniques are accessible to individuals with different levels of research experience, adaptable to a spectrum of research settings, and can be replicated across studies.

In Section 2 of this chapter, techniques for analysing qualitative data are discussed. Section 3 then explains in more detail a number of specific methods of qualitative research.

**Analysing qualitative data**

Qualitative analysis is anchored in data based on observations of physical settings and how they are experienced by people. Qualitative analysis can also be based on existing documents, public records, and archival materials. Data include observable elements of a physical environment, artefacts people leave in those environments that document their activities, observations of what people do in those environments, and records of what people say about them. These data are collected in qualitative research using a number of tools. Researchers take field notes and record information collected in various interview settings. They collect written documents from organizations and research participants. Increasingly, researchers also use photographic, video, and other data collected from the Internet (Ball & Smith, 1992; Best & Krueger, 2004; Banks, 2007; Gaber & Gaber, 2007).

Irrespective of the data used in a qualitative study and a researcher’s preferred tools for analysing it, data analysis is governed by two closely related principles. First, qualitative analysis is an ongoing activity in the research process. It is an iterative process that involves the examination and re-examination of data. This approach to data analysis allows for research to be exploratory and adaptable to contingencies that emerge during the process of discovery. It entails ongoing data analysis from the initial steps in data collection through the completion of a research project. These characteristics make qualitative research well suited for the work of professional
planners, since it often entails the modification and adjustment of plans in response to feedback from various constituencies and changing environmental factors during the planning process.

In addition to treating analysis as an ongoing activity, qualitative research is guided by a second principle. Qualitative data analysis is systematic. It involves the use of tried and tested techniques for recording, organizing, and analysing data. These techniques include:

- problem framing;
- normalizing and managing anxiety;
- coding data;
- memoing;
- diagramming;
- flexible thinking.

**Problem framing**

Like all other aspects of qualitative analysis, problem framing is an iterative process. It involves the identification of a general set of propositions that are used to organize analysis. These propositions are drawn from: existing concepts used to describe or explain a problem being examined, indigenous terms or jargon used by people encountered in a research setting to describe aspects of a problem, and new concepts that emerge during the research process. The scope of propositions used to organize qualitative research will change during the research process, since initial assumptions may prove to be insufficient to accommodate all of the facets and contingencies of a research problem as more is learned during data collection.

**Normalizing and managing anxiety**

The developmental nature of problem framing and qualitative research in general makes it essential for qualitative researchers to embrace flexibility and uncertainty in the research process. By nature, qualitative research is open-minded and open-ended. This approach to research essentially opens a floodgate of information about a topic and attempts to organize it in a purposive manner. The sheer volume of data and the relatively open-ended nature of qualitative research can be a source of anxiety for those new to it. In order to cope with anxiety, researchers should embrace this methodology and view it as a journey aimed at discovering new knowledge. In essence, they should focus on turning anxiety into an adventure.

The unofficial mantra of the United States Marines is to *improvise, adapt, and overcome*. In many respects, this mantra applies to the manner in which qualitative researchers address anxiety in the research process. In addition to internalizing a dose of tenacity, researchers can reduce anxiety by adhering to some pedestrian practices. First, they should diligently analyse data. Data should be analysed early in the research process and often. Continuous data analysis should be coupled with the regular adjustment of research design in response to emergent findings. Second, researchers should be consistent and systematic in the use of data analysis techniques. A log of methods and techniques should be maintained during the research process, and decisions about adjustments to research design should be done in consultation with co-investigators or trusted colleagues.
A core activity in data analysis is coding. It involves sorting data into categories for further analysis. There are two primary types of coding done in qualitative analysis. The first is called open coding. It involves the reading of field notes, transcripts, and other documents line-by-line and assigning codes to discrete excerpts in the data. The second type of coding done in qualitative analysis is called focused coding. It involves comparing results from open coding, synthesizing information, and constructing broad, overarching categories for data. Coding occurs throughout the research process. Thus, it is often referred to as the constant comparative method since a researcher constantly re-examines her or his coding scheme and refines it.

Table 3.2.1 presents an example of open and focused codes applied to interview transcript data from a study of community development corporations I conducted in Detroit, MI (Silverman, 2005).

<table>
<thead>
<tr>
<th>Open Codes</th>
<th>Interview Excerpts</th>
<th>Focused Codes</th>
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</thead>
<tbody>
<tr>
<td>-new to area</td>
<td>Question: How do residents get involved in the community development process? Answer: Let’s say we’re going into a new neighborhood and people don’t know about us. As we secure the property that we’ve acquired and put our signs out, we also actively work within that block to get to know the neighbors. To encourage neighbors to watch out for our shared interests, to get them to watch out for each other, as well as to watch our property.</td>
<td>-forging collaboration</td>
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<tr>
<td>-visibility</td>
<td>At holiday times we also do fundraising or events that encourage the neighbors to participate by giving out gift baskets. We might ask them to submit names of needy families. At Thanksgiving or Christmas time we would give baskets out and have residents accompany us. For example, if we’re rehabilitating a house and they know of people who want to buy a house but can’t afford to, we get their names from them. We’ve done garage sales, fundraisers, raffles and a number of things to assist people in getting their down payment together. We provide counseling if they have credit issues. We identify different lenders that have programs that might assist them, and we pass that information on to people in the neighborhood.</td>
<td></td>
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<tr>
<td>-participation</td>
<td></td>
<td>-grassroots recruitment</td>
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<tr>
<td>-share information</td>
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<td>-formal programs implementation</td>
</tr>
<tr>
<td>-charity</td>
<td></td>
<td></td>
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<tr>
<td>-credit counseling</td>
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### Table 3.2.1 (Continued)

<table>
<thead>
<tr>
<th>Open Codes</th>
<th>Interview Excerpts</th>
<th>Focused Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>-lending programs</td>
<td>We also try to identify resident, many of them are long term residents and older, who are unhappy about illegal traffic and other activity. We advise them how to report violations or if City services are not being taken care of. We also encourage them to report to the appropriate City department, certain things that need to be taken care of, like garbage pick-up or whatever. Or, if people are dumping illegally, they need to report that kind of thing. We have a staff person who works with community organizing, but we bolster that if we have a particular area that we're going into. We bolster that with board participation, so that we are able to then have a presence. People associate a face with our company, and they provide us with a lot of good information.</td>
<td>-empowerment</td>
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<td>-neighborhood concerns</td>
<td></td>
<td>-generating goodwill</td>
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<tr>
<td>-complaint process</td>
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<td>-visibility</td>
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<tr>
<td>-security</td>
<td>We had, for example, a house that we were working on, where people were trespassing. Jumping the fence and cutting through the property. Neighbors told us about it. That information allowed us to go and get a higher fence approval by the City. So instead of a four foot fence we were able to put up a six foot fence to eliminate that kind of thing and to improve the surrounding neighborhood. It also helped eliminate vandalism too.</td>
<td>-program enhancement</td>
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<tr>
<td>-leverage</td>
<td></td>
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</tbody>
</table>

Although the example in Table 3.2.1 comes from an interview transcript, open and focused coding techniques can also be used with other qualitative data. Table 3.2.2 presents an example of open and focused coding applied to field note data from research I conducted with a co-investigator on the creation of a homeowners association in suburban Detroit, MI (Silverman & Patterson, 2004).

Coding is a relatively simple and intuitive process. It entails writing codes in the margins of field notes, transcripts, images, and other qualitative data documents. Traditionally, codes have been written onto hardcopies of data documents. With the advent of word processing programmes, software for qualitative analysis, and other new technology, coding can also be done electronically. Once data is coded, researchers sort it and develop filing systems. In the past, this was done by generating multiple hard copies of coded data and manually filing them into folders organized by theme and topic. Today, much of this work is done using electronic files and folders in conjunction with word processing programmes or specialized software for qualitative analysis.

As noted, coding qualitative data is an iterative process. Part of the process of organizing data for subsequent analysis involves the development of a chronological record of data collection.
Table 3.2.2  Example of coding from field notes on the creation of a homeowners’ association in suburban Detroit, MI

<table>
<thead>
<tr>
<th>Open Codes</th>
<th>Field Note Excerpts</th>
<th>Focused Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>-invitation</td>
<td>The developer of the subdivision invited all of the residents to a barbecue. Each resident received an invitation on the developer’s letterhead. The invitation was left on each homeowner’s front door. It said that everyone in the neighborhood was invited to come to the model home at the entrance to the subdivision on a Sunday afternoon. According to the invitation, the purpose of the barbecue hosted by the developers was “Meet Your New Neighbors” and “Hot Dogs, Hamburgers, and Beverages” would be served.</td>
<td>-use value</td>
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<tr>
<td>-meet and greet</td>
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<td>-neighborhood &amp; community building</td>
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<tr>
<td>-barbecue</td>
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<tr>
<td>-families</td>
<td>We arrived at the barbecue at about 12:45pm and stayed for approximately 1 hour. During the time that we were at the barbecue, about six other families attended. They included adults and children. The developer and three of the sales people and construction supervisor who worked for him attended. It was a warm summer day and the barbecue was held on the lawn in front of the model home. It was a casual setting where people dressed in shorts and t-shirts.</td>
<td>-exchange value</td>
</tr>
<tr>
<td>-developer and staff</td>
<td></td>
<td>-privatization</td>
</tr>
<tr>
<td>-summer, picnic</td>
<td></td>
<td>-planning &amp; development tools</td>
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<tr>
<td>-casual</td>
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<tr>
<td>-relaxed</td>
<td>For the most part people were relaxed and informal. We discussed the neighborhood and plans for landscaping and other household issues. The food was as described in the invitation. Hot dogs, hamburgers, potato chips, and light refreshment including soft drinks, beer and wine.</td>
<td></td>
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<tr>
<td>-informal</td>
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<td></td>
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<tr>
<td>-small talk</td>
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<tr>
<td>-food and drink</td>
<td>However, the developer also handed out a packet to everyone who attended. It was a surprise. The packet included draft Covenants, Conditions, and Restrictions (CC&amp;Rs) for a proposed homeowners association for the subdivision. When the developer gave us the packet, he asked that we read it and return a signed copy to him the following week so he could file it with the township. We were surprised by this, since there was no mention of a homeowners association when we bought our house. Getting this put a damper on the party. We left shortly afterward.</td>
<td></td>
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<tr>
<td>-CC&amp;Rs</td>
<td></td>
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<tr>
<td>-HOA</td>
<td>Later that evening we spoke to a neighbor on our driveway. They were at the barbecue too, and left about a half-hour after us. They were mad about what the developer did because they felt that the barbecue was supposed to be a family event, but they later realized it was set up for business purposes. They were also mad because the people who worked for the developer were drinking alcohol, and because the developer’s assistant called one of them a “liar” when he said he was told there was not going to be a homeowners association at the time they purchased their home. They were particularly upset because the developer’s assistant seemed intoxicated at the time and questioned their honesty in front of their children. After this exchange, they said they handed the CC&amp;Rs back to the developer’s assistant and left the barbecue.</td>
<td></td>
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<tr>
<td>-surprised</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-party over</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-neighbor angry</td>
<td></td>
<td>-conflicting use &amp; exchange values</td>
</tr>
<tr>
<td>-business not family event</td>
<td></td>
<td>-unprofessional</td>
</tr>
<tr>
<td>-tricked</td>
<td></td>
<td>-bait and switch</td>
</tr>
<tr>
<td>-drinking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-“liar”</td>
<td></td>
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</tbody>
</table>
and analysis. This involves the storage of data thematically and chronologically. The recording of all field notes, transcripts, rounds of coding, and filing systems should be organized by date. This facilitates the analysis of data and a record of its conceptual development.

Many qualitative researchers also use word processing software to code and analyse data. Moreover, there are a growing number of researchers using specialized software and other new technology to enhance qualitative analysis. *Atlas.ti* (www.atlasti.com) and *NVivo* (www.qsrinternational.com) are two of the most prominent commercial software programmes used in qualitative research. There are also a growing number of qualitative software tools available online that allow researchers to upload data, conduct interviews and focus groups remotely, and analyse data collaboratively. Examples of these resources include *dedoose* (www.dedoose.com) and *VisionsLive* (www.visionslive.com). In addition to commercial products, there is growth in the availability of open-source software for qualitative analysis. For example, a free qualitative software package called *EZ-Text* is available from the Center for Disease Control (www.cdc.gov/hiv/topics/surveillance/resources/software/ez-text/index.htm).

**Memoing**

In addition to data collection and coding, researchers write internal memos about their research experiences. Memos make up an internal record of a researcher’s ideas about coding categories and their interconnectedness, emerging theories and theoretical concepts, fieldwork experiences, and methodological decisions. Memos are typically embedded in field notes and transcripts. Techniques for memoing are elaborated upon in the next section of this chapter, which discusses field notes and field observations.

**Diagramming**

In addition to developing coding schemes and memoing, researchers create diagrams that visually represent relationships identified in a study. Figure 3.2.1 provides an example of diagramming of focused codes generated from a study of community development corporations I conducted in Detroit, MI.

![Diagram of codes from interviews with the CEOs of community development corporations in Detroit, MI.](image-url)
Flexible thinking

The final technique used to record, organize, and analyse data is flexible thinking. This entails a dynamic approach to data analysis. In part, flexible thinking requires qualitative researchers to continuously re-examine their data. Researchers should use multiple coding schemes for the same data and recode data in light of emergent themes. Codes and diagrams should be organized in multiple ways to bring out nuances and facets of data. Researchers should also avoid becoming overly engaged in micro-analysis, and periodically step back from data and focus on the overall structure of issues being examined. Another pitfall to avoid is the tendency to prematurely become locked into a theoretical framework for analysis. Researchers, particularly those operating from a grounded theory framework, should embrace the discovery of new knowledge early in a study, and let their journey in qualitative research lead them to conclusions that are embedded in the data collected during research, rather than preconceived grand theories. Moreover, qualitative researchers should be cautious about confusing the application of new technology with analytic thinking. Software can assist in storing and organizing data for analysis, but actual analysis involves critical thinking skills that the researcher brings to a study. Finally, flexible thinking is facilitated by sharing preliminary findings with co-investigators, research participants, and stakeholders. Feedback from others can identify new areas for inquiry and undetected facets of analysis.

Some core qualitative methods

Field notes and field observations

Taking field notes and making observations are among the most fundamental data collection techniques used in qualitative research. Emerson, Fretz, and Shaw (2011) provide an extensive overview of field note techniques used in qualitative research. These techniques are sometimes used independent of other qualitative methods, but they often can be combined with other data collection techniques, like semi-structured interviewing and focus group research. Although there are many benefits to using field notes and field observations to augment other qualitative methods, they are sometimes substantial enough to constitute stand-alone research. For example, a co-investigator and I relied exclusively on field notes and field observations to complete a study of homeowners’ associations and neighbourhood planning in Detroit, MI (Silverman & Patterson, 2004). I was also a member of a research team that used field notes to analyse the role of action research in urban planning practice (Silverman, Taylor, & Crawford, 2008).

Field notes constitute a written record of field observations. They represent a chronological record of mundane facts and significant events that are observed in a research setting. Field notes begin with a description of mundane facts. These facts provide a contextual description of observable elements of a field setting, such as: the time and date observations were made, the layout of a physical setting, characteristics of people in the setting, sketches of buildings and streetscapes, and other aspects of the research site that provide context. Once mundane facts are accounted for, qualitative researchers describe significant events in their field notes. These events include social processes, key interactions, and the researcher’s analytic insights about observations relevant to a problem under examination.

In many respects, the label field notes is a misnomer, since field notes are constructed during two separate and distinct stages of the research process. During the first stage, abridged notes are
taken in the field while observations are occurring. During the second stage, full field notes are developed after the researcher leaves a field setting.

The field note process begins when a researcher enters a research site. Upon entering the field, the researcher becomes an active observer and attempts to identify many things from multiple perspectives. Before writing begins, the researcher should take mental notes and translate them into short cues or mnemonic devices that will trigger her or his memory later in the research process. These triggers are recorded in abbreviated notes, which are often referred to as jottings in qualitative research. When writing in a field setting, a researcher should focus on jotting down cues or mnemonic devices in chronological order as they are identified. Jottings identify mundane facts and significant events. These abbreviated field notes form an outline for more detailed field notes that are constructed after the researcher leaves a research site.

Taking field notes is an intensive activity. During the initial stages of fieldwork, a researcher will take jottings on an extensive amount of information. Because of the intensity of data collection during this phase of a study, a researcher should plan to take field notes for relatively brief intervals during the early stages of a research project. After spending thirty minutes to one hour in the field, a researcher should leave the research site, develop full field notes, and conduct preliminary analysis. This analysis will assist the researcher in identifying aspects of the research setting to collect additional data about in subsequent site visits. Decisions about what to collect data on are influenced by the initial research questions and themes that emerge during the research process.

As field research becomes more focused, the duration of time spent in a research setting will incrementally increase. After multiple visits to a research site, the volume of new information gathered will begin to decline and observations will become somewhat repetitive. At this stage, a point of data saturation has been reached and fieldwork is nearing completion. The exact point when data collection ends varies from study to study. Often the decision to end data collection is a function of reaching a point of data saturation, as well as pragmatic considerations related to resource and time constraints associated with a project (such as the end of an academic semester, contract stipulations, and other externally imposed deadlines).

After leaving the field, the process of writing full field notes begins. This process entails two steps. First, jottings and other abbreviated field notes are referenced to construct detailed descriptions of observations made in a field setting. Once a detailed set of field notes is constructed, the researcher will add analytic and methodological notes. This second step is referred to as memoing. In this step a researcher will insert brief analytic notes in parentheses throughout a detailed set of descriptive field notes. In some cases, memos will be embedded in the text of field notes to clarify or add context. In other cases, longer memos will be added after a significant event is described. These longer memos focus on preliminary analysis or are used to facilitate open and focused coding during analysis. Longer memos also appear at the end of a set of field notes in order to identify methodological and design issues that surface during field research.

It is important to recognize that developing field notes entails a filtering process. Through this process events are recorded into a written record. Through the act of recording data into written field notes the researcher decides what information to include in the analysis and what information to exclude. In essence, the researcher is the primary data collection instrument and data processing device in qualitative analysis. Consequently, the researcher must remain attuned to her or his biases and account for them during the memoing process. In qualitative analysis, this is referred to as reflexivity.
A researcher’s potential bias is one factor to be aware of during field work. Qualitative researchers should also remain attuned to logistical considerations when collecting data. For instance, a researcher should plan on leaving the field after a reasonable period of time has elapsed and begin the process of compiling full field notes as soon as possible. This is done to ensure that details about events are retained accurately. A researcher should also commit adequate time to writing up detailed full field notes. Attention to detail is essential, since analysis is an ongoing process and some notes may not be fully analysed until much later in a research project. A researcher should also type field notes using a word processing programme to facilitate coding and other analytic activities. Finally, a researcher should write up full field notes in the chronological order that events occurred. This technique prevents the researcher from skipping over events that seem unimportant initially which later become central to data analysis.

Field notes are used in a number of research settings and social science disciplines, but they have particular value when applied to planning research. In addition to traditional field notes that are used to record observations, planners apply this data collection technique to a variety of activities in their daily work. For example, planners routinely conduct windshield surveys and other observational site assessments. These data collection activities entail visiting a site like a neighbourhood or park, recording information about its physical characteristics, and developing a written record of the planner’s observations and impressions. Developing systematic field notes is a core component of windshield surveys and site assessments.

In addition to traditional paper and pencil recording techniques used in field research, planners also benefit from other data collection tools. The most common tool used to augment jottings and other note taking is photography. It is increasingly common for researchers to incorporate photographic data into their field research and then write extensive field notes about pictures taken in a research site. This activity has been facilitated by technological innovations in digital photography and video recording. Advances in smartphone technology and computer tablets have also facilitated the development of field notes. For instance, it is now possible to record jottings using portable electronic devices. In some cases, the omnipresence of cell phones and texting makes their use in field research more unobtrusive than traditional forms of note taking.

**Semi-structured interviewing**

In addition to taking field notes and making field observations, semi-structured interviewing is an essential tool for qualitative research. Wengraf (2001) provides a detailed overview of different interviewing techniques used in qualitative research. As described in his and other texts, semi-structured interviewing is one of many interviewing techniques used in qualitative research. For instance, informal interviewing and impromptu conversations occur with people in research settings. In planning and other professional disciplines, opportunities to collect data through informal conversations occur naturally. Data from these exchanges become part of data gathered during fieldwork. The role and use of data from these types of interviews are discussed by Jorgensen (1989) and Lofland et al. (2005).

In contrast to informal interviewing, the purpose of semi-structured interviewing is to gain detailed and focused insights into how individuals perceive a topic of interest to researchers. For planners, semi-structured interviewing is used to gain an in-depth understanding of how key stakeholders perceive and understand an issue. Those stakeholders may include residents in a community, developers, policymakers, and public administrators responsible for the design and
implementation of a plan. I have found semi-structured interviewing to be indispensable in my research on community-based organizations and public participation (Silverman 2001, 2002, 2003a, 2003b, 2005, 2009). There are many other applications of this methodology to planning research.

The mechanics of semi-structured interviewing involve the administration of thematic questions. The semi-structured interview is guided by a set of predetermined questions, but it is conversational in nature and driven by the responses of an interviewee. The purpose of semi-structured interviewing is to identify emergent themes through a relatively naturalistic conversation. Semi-structured interviews are designed to ensure some continuity across interviews, but they are administered in a flexible manner. They are primarily composed of open-ended questions. After a discussion takes place using open-ended questions as a guide, data are collected based on a discrete set of questions that focus on biographical and demographic characteristics of interviewees.

The role of a researcher in semi-structured interviewing is to introduce topics for a conversation in an unbiased manner. The topics are organized around a specific set of issues that are the focus of a research project. After an interviewee responds to a researcher’s questions, the researcher will probe in order to keep the conversation flowing and add dimension to the issues identified. The interview guide is the primary tool used by a researcher to keep the conversation flowing in a semi-structured interview. The interview guide is composed of three core elements.

The first is an informed consent statement. In most cases, informed consent statements are written out and either verbally administered or read by an interviewee and signed. The exact administration of informed consent is determined by the level of risk associated with a study and requirements of an institution’s institutional review board. The general purpose of informed consent is to assure an interviewee of her or his confidentiality and explain the purpose of a research project. In addition to making an interviewee aware of the risks and benefits of participating in a study, informed consent is an important tool for initiating an interview for the purpose of data collection and establishing rapport with an interviewee. In essence, informed consent defines the parameters of an interview, identifies the rules of the game, and orients an interviewee to the research process.

The second element of an interview guide is a series of grand-tour questions with follow-up probes. This element makes up the bulk of the interview guide. Grand-tour questions ask a respondent to provide an overview of a major theme of interest to a researcher. Probes are more specific follow-up questions used to flesh out details of a theme covered in a grand-tour question. Both grand-tour questions and probes are open-ended in nature. Grand-tour questions and probes are organized in a logical sequence in an interview guide, but a researcher will adjust the sequence of questions based on the flow of an interview. Based on an interviewee’s responses, the order of questions may change in an interview and all of the questions in an interview guide may not be used. As a rule of thumb, an interview should begin with a general icebreaker question to ease the interviewee into the discussion and develop rapport. This question is followed by more specific ones, with sensitive and potentially volatile topics covered later in the interview process.

The wording and style of grand-tour questions and probes should vary in a semi-structured interview guide. Some questions ask an interviewee to describe events and situations a researcher is interested in learning about. These questions are prefaced by terms like: “tell me about . . .”, “describe a situation when . . .”, “what types of . . .”, and “in what ways . . .”. Other questions ask an interviewee to “give examples” of events and situations a researcher is interested in learning about. Researchers also ask interviewees to recall experiences they have had. These questions ask an interviewee to: “tell me about a time you did . . .” or “what has your experience
Analysing qualitative data

been with . . .”. When jargon is used by an interviewee, researchers often probe for definitions of indigenous terms. They ask, “How do you define . . .” or “what do you mean by . . .”. Researchers also ask interviewees to compare and contrast things during the course of an interview. For instance, a researcher may ask an interviewee, “In what ways does X differ from Y?” or “how are A and B similar?” Finally, interviewees are asked to place issues in a temporal context. For example, a researcher may ask: “how was X done in the past?”, “how is Y done now?”, or “how will Z be done in the future?”

The last element of an interview guide includes demographic questions and a closing statement. These questions collect data on non-observable demographic characteristics of an interviewee and relevant dimensions of a research setting that the interviewee has knowledge of. These questions may include things like an interviewee’s educational background or tenure of residence in a community, as well as characteristics of a programme the interviewee implements or a neighbourhood she or he lives in. An interview guide should include a closing question which asks an interviewee if there are any other issues she or he would like to discuss or elaborate upon. Closing questions sometimes bring forth crucial information that is relevant to a study. Finally, interview guides end with debriefing statements. In these statements, a researcher thanks the interviewee for participating in a study, provides contact information, and tells the interviewee how results from a study will be disseminated.

Once an interview guide is constructed and pretested, it is time to administer interviews. There are four issues to consider at this stage of the research process. First, a researcher needs to decide how to contact interviewees and recruit them to participate in a study. Typically, this involves the use of an advance letter, which describes the purpose of a research project and invites the prospective interviewee to participate in a study. The advance letter is followed up with a personal contact and the scheduling of the interview. The interview is usually scheduled in a neutral, private location where the researcher and interviewee can sit and have a discussion. At the initial stages of a study, participants are identified based on their familiarity with the research topic and the researcher’s access to them. Once a study is underway, researchers use techniques like snowball sampling, purposive sampling, or theoretical sampling to identify additional research participants. Sampling techniques in qualitative research are discussed by authors like Glaser and Strauss (1967), Lofland et al. (2005), and Berg and Lune (2012).

The second issue to consider before administering an interview is the preparation of materials for data collection. A researcher should bring a copy of the interview guide, a pen or pencil, and paper for note taking. In addition, a researcher should bring an audio recording device to an interview. Before attempting to collect data, the researchers should test the recording device and be familiar with its operation and capacities. A recording from an interview is the primary material used to create a verbatim transcript. In addition to a recording, notes taken during an interview are used to augment a transcript and any analytic materials associated with it.

The third issue to consider before administering an interview is how to comport yourself. It is vital that a researcher establish rapport with an interviewee. This entails maintaining eye contact and being an active listener. Eye contact, facial expressions, and other non-verbal cues can be used to facilitate and guide a conversation. It is important to take field notes and jottings during an interview. This gives an interviewee cues that the topics of discussion and her or his responses are important. Field notes taken during an interview also supplement the audio recording. In cases where the audio recording is inaudible or a recording device malfunctions, the field notes taken during an interview are critical to reconstructing a discussion.

The final issue to consider before administering an interview is what to do immediately following it. A plan should be in place to transition from interviewing to transcription and note
taking. Immediately following an interview, it is a good idea to verify that your audio recording captured the interview. If the recording worked, the researcher should make some initial field notes about the interview experience. Then the researcher should produce a verbatim transcript of the recorded interview. Once a verbatim transcript is completed, the researcher can add field notes and memos to it. If the recording did not work, the researcher needs to immediately sit down with her or his field notes and jottings from the interview and reproduce as much of the discussion as possible. Once an interview transcript and associated notes and memos are in place, the researcher can begin coding and analysing the data.

Traditionally, semi-structured interviews have been administered in person. Although face-to-face interviewing is the gold standard in qualitative research, there are times when it is not feasible. This is particularly relevant to some types of applied research that planners are engaged in. In some cases potential interviewees are not accessible for in-person interviews because of logistical and time constraints. When constraints to in-person interviewing are present, alternative strategies are sometimes available that apply new technology. Salmons (2010) discusses a number of these options. They include the use of the Internet, smartphone technology, Skype, video chat rooms, email, and telephone interviewing. Though each of these technologies has its own unique limitations, they represent a number of new platforms for collecting qualitative data.

**Focus groups**

Semi-structured interviews involve one-on-one interactions. However, it is sometimes advantageous to conduct group interviews. Qualitative researchers refer to this type of data collection as focus group interviewing. There is an extensive body of literature on how to conduct focus groups (Barbour, 2007; Gaber & Gaber, 2007; Krueger & Casey, 2009). Focus groups are group interviews guided by a moderator. They are advantageous in applied research settings because focus groups allow a researcher to collect data in a relatively short period of time from multiple individuals. They also entail relatively lower costs. Focus groups utilize a format that is familiar and understandable to participants. They mirror group discussions about a topic of interest. This format is highly conducive to the examination of planning issues, particularly when multiple perspectives are sought and there are logistical and time constraints involved in data collection. Focus groups are also useful when exploring a relatively new topic where there is a need to identify its parameters for subsequent analysis. I use focus groups frequently in my own research. For instance, focus groups were a central component of a study I did with a colleague on administrators’ and policymakers’ perceptions of fair housing policy in Buffalo, NY (Patterson & Silverman, 2011).

Despite the advantages of focus group research, this methodology entails challenges. Foremost is the challenge a focus group moderator faces in keep the discussion focused on the research topic. The presence of multiple participants increases the likelihood that a focus group discussion will drift off of its intended topic. It is essential that a focus group moderator is skilled in facilitating a discussion. Focus groups also entail challenges due to their inclusion of multiple participants. Group dynamics add layers of complexity to analysing data. Researchers must account for the social environment that group interactions are embedded in when analysing data. Focus groups also require greater logistical coordination. Multiple participants must be assembled and a moderator must coordinate her or his activities with other members of a research team.

Typically, a focus group has six to ten participants. The ideal focus group should be small enough so each participant has the opportunity to share her or his insights, but large enough to
include a variety of individual opinions. On average, a focus group discussion runs for about one to two hours. Studies typically use multiple focus groups to examine a topic. Each focus group is composed of participants with similar characteristics. For example, a series of focus groups on neighbourhood revitalization may include separate groups for: residents, developers, renters, homeowners, youth, and other stakeholders. As a rule of thumb, it is common to conduct three to five focus groups in an exploratory study. During the analysis of focus group data, researchers will compare within and between groups.

In a similar manner to semi-structured interviews, focus groups use open-ended questions to identify perceptions of individual participants. The focus is on identifying individual and group perceptions. Focus groups are not designed to develop consensus, solve a problem, or arrive at an agreed-upon plan of action. These outcomes may result from a focus group discussion, but they are not the goal. The purpose of a focus group is to generate usable data to understand the scope and depth of an issue under examination. Data are collected about participants’ responses to questions posed to a group and their interactions. Verbal and non-verbal responses are recorded. Data are recorded using audio recording equipment, field notes, and sometimes video. These data are organized into field notes and transcripts for further analysis.

The moderator fills an essential role in the focus group. She or he brings structure to the group’s discussion. The moderator poses questions to the group, probes for details, and maintains the group’s focus. The moderator also ensures that all group members participate relatively equally in a discussion. This is achieved by calling on people who are reticent and preventing more domineering individuals from excessively influencing a conversation. The moderator should employ similar techniques as an interviewer does to stimulate conversation in a semi-structured interview. These include being an active listener, taking notes, and maintaining a neutral posture. However, a focus group moderator usually has the benefit of the presence of other research team members who exclusively take field notes and operate recording equipment for data collection.

The focus group is guided by a questioning route. This is similar to an interview guide that is used in a semi-structured interview. The questioning route includes five elements. The first element is the introduction. The introduction provides an overview of the study, a description of focus group participants’ roles in the research, and introductions of the research team members and participants. The introduction also includes a discussion of confidentiality and elements of an informed consent process. Because focus groups entail group discussions, it is difficult to guarantee complete confidentiality. However, it is customary to request that each member of a focus group refrain from sharing the content of a discussion and individuals’ comments outside of the research setting.

The second element of a questioning route is a statement of rules for conducting the discussion. In this statement, the moderator requests that the discussion remain an orderly and polite environment where everyone is encouraged to participate. Participants should be reminded that the purpose of the focus group is to identify the full range of opinions. Participants are not required to agree with one another. The moderator should also define her or his role as a neutral facilitator.

The third element of a questioning route includes the questions for discussion. This element of the questioning route is similar to an interview guide used in semi-structured interviewing. It includes a series of grand-tour questions and probes. The questions typically begin with a general question that serves as an icebreaker. This question is followed by questions focusing on more specific issues. The last question posed to a group typically asks for any final thoughts. Following the discussion, some focus groups are presented with a handout for individuals to complete, which includes basic demographic questions.
The fourth element of a questioning route includes special activities used to add dimension to data. Not all focus groups include this element. When special activities are incorporated into a focus group they include things such as: drawing exercises, mapping, the interpretation of photos and video, model building, role playing, and other group activities. In planning research, these types of activities are often applied in workshop or charrette settings. Focus group participants might be asked to review preliminary plans, building facades, or urban design elements, or discuss policy proposals. The materials produced by focus group participants through these special activities become part of the data record for later analysis.

The final element of a questioning route involves guidelines on how to deal with sensitive topics. Some focus groups deal with sensitive topics like drug abuse, crime, sexism, racial segregation, deviant behaviour, or other potentially volatile issues. In a group setting it is advisable not to put individuals on the spot when asking about sensitive topics. Instead, questions should be structured in a manner to allow participants a degree of separation from sensitive topics, as opposed to pressing them to insert themselves directly into a situation. For instance, individuals might be asked, “What do you think the effects of racial segregation are on a neighbourhood?” instead of, “Tell me about how you have been affected by racial segregation.” This approach allows participants to first consider sensitive topics in the abstract before volunteering information about more concrete, personal experiences. Skilful moderators can guide group discussions of sensitive topics from general perceptions to concrete examples using probes that follow grand-tour questions.

Focus groups are frequently used in applied planning research. There are other methods for data collection that complement or mirror focus group research. Some of these include the holding of electronic town hall meetings, media focus groups, charrettes, and community workshops. New technology is increasingly being applied to focus group research through the use of remote conference calls, Skype, and online discussion boards. These methods are discussed by Sanoff (2000), Krueger and Casey (2009), and Salmons (2010).

Conclusions

In closing, qualitative methods add to the research capacity of planning scholars and professional planners. They are particularly beneficial when the perceptions of stakeholders are multifaceted and nuanced. Although they can be applied to all sub-disciplines in the planning profession, qualitative methods are most frequently used when questions of equity are raised in the planning process. This is one reason that individuals engaged in community development routinely apply qualitative methods to their work.

Each of the methods discussed in this chapter complements the use of quantitative data in planning. For instance, census and other demographic data are often used in conjunction with qualitative data to inform plan making. Other mixed-methods approaches are used in areas like environmental planning, transportation planning, disaster mitigation, economic development, and market analysis.

One of the more promising areas for the use of qualitative methods involves the growing field of participatory action research. This brand of research has become increasingly popular as more planners attempt to use research to empower community residents and other stakeholders. The fusion of equity planning and action research offers the potential to transform planning research and level hierarchies in society. A growing body of work has been initiated to promote the development of this stream of methodological development. Stringer (2007) and Stoecker
(2005) provide a framework for designing participatory research. Colleagues and I have critically examined the extent to which participatory action research can be applied to planning (Silverman, Taylor, & Crawford, 2008). Notwithstanding our critiques, scholars and practitioners continue to make progress towards the development of more inclusive approaches to planning research.

References


