The backbone of every research project is the collection of data that a researcher has identified as worthy of analysis. Interviews, survey questionnaires, publically available information and audio-visual material are all potential sources of data to a researcher. However, collecting data can be a daunting experience, either because you have too little data or because what looked like a rich dataset has turned into a nightmarish sense of data-overload. It is therefore helpful to spend time thinking about where you will look for data. Evaluating data sources will save valuable time and resources but also tends to lead to better analysis and more robust results. What constitutes good practice when collecting data is very much dependent on the research tradition within which your project is placed. How do different research traditions define and use data? For those scholars whose work you are engaging with closely, where did they source data? This chapter is our first look at the ‘Data Gathering’ area of the Methods Map. The sections that follow will help you evaluate data quality, consider ways in which different sources of data be combined and will provide practical advice on data collection. Additionally, a great part of this chapter is dedicated to case studies as an example of a methodology that can be based on different types of data. By following the advice offered here, you will be able to collect data that are relevant to your research methodology and build high quality insights.

Data in different research traditions

Elsewhere in this book, we have established that research is a broad term which covers a range of different views of what constitutes knowledge and whether social realities are fixed or constructed. Each of these traditions has developed accepted practices in terms the nature of data and approaches to
both data collection and data analysis. For the moment, we would simply assert that what is considered ‘data’ within the different epistemological traditions varies widely. On the one hand, the natural sciences are often based on a view (positivism) which assumes an objective world that exists independent of the researcher; one that is based on universal laws of human nature and social reality (Patton and Appelbaum, 2003). From within this worldview, research designs, for example, that seek to verify hypotheses using statistical generalizations seem entirely reasonable (Guba and Lincoln, 1994). As a result, management research within such a tradition would feature data gathered in the form of large-scale surveys, questionnaires and other methods shown in the Methods Map that entail the quantification of a phenomenon, e.g. examining the amount, intensity or frequency of something (Valsiner, 2000, Ketokivi and Choi, 2014). Wherever possible, data within this epistemological tradition are gathered in specific ways that are intended to allow generalizations across populations.

At the other end of the epistemological spectrum, other research traditions begin with the premise that for a researcher to understand complex social phenomenon, they should consider the subjective experiences of participants (Sandberg, 2000), which Weber defines as ‘verstehen’ (Weber, 1964). This view of research highlights the socially constructed nature of our experience where, in simple terms, our perceptions are shaped by our own past experiences, the views of influential others, etc. So-called social constructionism (Luscher et al., 2006, Berger and Luckmann, 1966) is a well-established research tradition in its own right, but is very different from the kinds of scientific, factual and objective orientation of a positivistic research tradition. Researchers using qualitative data in the form of narrative (text) such as interview transcripts, observations and documents could then perform their analysis under either tradition (Patton, 2002), with interview data being regarded as objective or subjective according to the research tradition being used. More constructionist epistemological traditions aim to uncover the complexity of everyday life through ‘thick descriptions’: accounts of personal experiences, views, emotions, processes, etc. (Suter, 2011). Research is significantly influenced by how a researcher views the world, mandating significant value be placed upon ensuring rigorous data collection and analysis processes (Suter, 2011), whatever the research approach.
Table 5.1: Types of data and research traditions

<table>
<thead>
<tr>
<th>Research Tradition</th>
<th>Types of data</th>
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<tbody>
<tr>
<td></td>
<td><strong>Primary</strong></td>
</tr>
<tr>
<td></td>
<td><em>Original data, generated for the specific purposes of a research project</em></td>
</tr>
<tr>
<td>Positivism</td>
<td>“Quantitative Data” surveys, questionnaires, web-based surveys</td>
</tr>
<tr>
<td>Interpretivism</td>
<td>“Qualitative data” interview transcripts, observation notes, field notes, photos, video material</td>
</tr>
</tbody>
</table>

* Secondary data can be used both as the only sources of data (see for example historiometric studies) or as complementary sources of data to primary data for triangulation purposes.

**Primary and secondary data**

*Primary data* is original data generated for the specific purposes of a research project. This can include transcripts from interviews that you have conducted yourself, or questionnaires from a survey which you have organized for your research (Bryman and Bell, 2007). When starting a research project there are many sources from which you can draw your data such as interview transcripts, documents, audio-visual material or publically available data from newspapers and websites (Baxter and Jack, 2008). In essence every source of information that is relevant to your research question is a potential form of data (Bryman and Bell, 2007). In general data can be numeric, textual, visual or a combination of the above (Blaxter, Hughes & Tight, 2001). The following list covers the main types of primary data each researcher can choose from:
- questionnaires
- surveys / web-based surveys
- transcripts of interviews
- field notes from focus groups
- observations
Which of these types of data you choose will depend upon the wider methodology and philosophical orientation that you are adopting as a researcher, as well as the purpose and nature of the research projects you are conducting. As described earlier, an empirically-oriented research drawing from the interpretivist or social constructionist tradition would likely be aiming to understand the underlying processes of a phenomenon, as experienced by social actors themselves. Such a research strategy is likely to rely upon qualitative primary data (such as interviews, documents and observations). For example in a longitudinal case study research of Singapore Airlines, Heracleous and Wirtz (2014) collected qualitative data (observations and in depth interviews) as their primary source of data in order to explore the airline’s strategic processes for sustainable competitive advantage over time. In this context, primary qualitative data (personal accounts from employees as well as observational data from the researchers) collected over a period of 10 years, uncovered subtle insights about the underlying processes within the organization and how these processes shaped the company’s strategy.

On the other hand, the method map shows that a researcher following a positivist tradition would most likely gather primary data in the form of quantitative surveys, questionnaires or perhaps databases. Following such a research approach, Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly (2005) examined data occurring from a large survey in 56 supermarket departments. In their quantitative analysis, the researchers tested three hypotheses on the correlation between different organizational processes, customer satisfaction and overall sales. The construction of a conceptual model that hypothesises about linkages, effects and causal mechanisms, and the subsequent gathering of data to test these hypotheses relies on data, yet both the data and the analytical process vary from one research tradition to another. In the examples above we see how different types of primary data (qualitative data such as those occurring from interviews, and observations and quantitative data such as those occurring from large scale surveys) support different types of research. Whereas these distinctions are clear in most cases, it is possible that an individual research project can span some of these boundaries, opening new ways of researching. For example,