Introduction to Qualitative Research Methods

Arthur Cropley
University of Hamburg

This is a complete, unpublished, open-access manuscript copy of the following book:

Cropley, A. J. (2019, 2nd updated, revised, and enlarged edition). *Qualitative research methods: A practice-oriented introduction for students of psychology and education.* Riga, Latvia: Zinātne. (open access – doi: 10.13140/RG.2.1.3095.6888) .

Table of Contents

Introduction: The purpose of this book

This book was written for beginners in the area of qualitative research. Its purpose is to make qualitative research methods understandable, interesting, concrete and useable. It aims at achieving effects at three levels: (a) the personal, (b) the scholarly, and (c) the practical. At the *personal* level the goal is to demystify qualitative methods, give readers a feel for what can be done with qualitative research, and encourage them to carry out qualitative studies. For this reason, it includes many down-to-earth examples couched in relatively everyday language. Many (although not all) of these come from my personal experience as a researcher. At the *scholarly* level the book seeks to provide readers with a set of formal concepts with which to understand the essence of qualitative methods and to familiarise them with specialized terminology for thinking, talking and writing about such methods, so that, for instance, they can explain and justify what they are doing in a professional way. Finally, at the *practical* level, the goal is to show readers how to design a qualitative study, collect qualitative data, analyse the data and report the results in a scientifically rigorous manner.

The ultimate goal is that at the end readers will be able to understand what qualitative research is all about, explain what they are doing and why, and show how qualitative research meets standards of scientific rigour, despite the fact that there is only one formula in the entire book. In addition, they will know how to conduct and write up such research. The book's contents involve:

- contrasting qualitative methods with quantitative approaches in order to highlight their central ideas;
- illustrating with examples the kinds of question that can be asked using qualitative methods;
- clarifying the nature of qualitative data;
- explaining how to collect such data;
- showing how to analyse qualitative data, and – since it is assumed that students intend to complete the requirements of their programs and ultimately graduate;
- providing guidelines on reporting the results of a quantitative study in a scholarly way.

At the beginning of each chapter there is a glossary containing terms I would like readers to remember and use appropriately in the future. In addition, Appendix A offers a checklist for

self-assessment of the quality of a qualitative report and Appendix B suggests further reading for detailed practical advice.

The contents of the book are drawn from two sources. The first of these will be well known to readers – the relevant literature. The second will be less familiar: In a number of places my practical experience as a researcher is drawn upon, especially in order to give concrete examples of the application or effects of basic principles of qualitative research or to comment on issues that have arisen in discussions with students. A number of case studies and concrete examples are taken from theses submitted by graduate students at the University of Hamburg; these are attributed in the usual way and I am grateful to the students involved.

Chapter 1: The definitive nature and emergence of qualitative research

The core property of qualitative research is that it examines the way people make sense out of their own concrete real-life experiences *in their own minds* and *in their own words*. This information is usually expressed in everyday language using everyday concepts. Qualitative research thus contrasts with quantitative research, which focuses on the way the world is understood *in researchers' minds*, usually using abstract scientific concepts and terminology. Quantitative research also examines differences in *amount or level* of the variables being studied and *cause and effect relationships* among them, whereas qualitative research is concerned with the *patterns and forms* of such variables. Qualitative methods are no longer regarded as mainly useful because they make it possible to deal with data that (regrettably) are unsuitable for statistical analysis, but are regarded by many researchers nowadays as offering a legitimate method for gaining information about and understanding how human beings function. Although qualitative research was out of fashion for a long time, modern interest in it represents the re-emergence of an approach that has as long a history in social science as quantitative methods. Despite the existence of "paradigm wars," the two approaches are not rivals but are complementary.

Chapter Glossary[1]

emergent issue:	an issue (often in the form of an unexpected preliminary finding) that is identified in the course of a piece of research and may surprise the researcher
incompatibility thesis:	the view that qualitative and quantitative methods are irreconcilable enemies (not shared in this book)
introspection:	a method of obtaining data by asking yourself about your own thoughts and behaviour in relation to some topic
mixed methods:	research designs in which qualitative and quantitative methods are combined (see Chapter 6)
narrative:	an account by a person of events in his or her real life; narratives most commonly involve interviews, but they can take many other forms, including diaries or letters, or even non-verbal forms of communication such as works of art

[1] Each chapter in the book starts with a glossary of terms used in the chapter that are useful for enlarging your technical vocabulary. The definitions given here relate to the terms as they are used in this book, and are not necessarily universal or even widely-used definitions.

narrative psychology:	a (little known) approach to psychology based on people's accounts (narratives) of how they understand the world
open item:	an item in a questionnaire which allows respondents to formulate their own answer rather than requiring them to choose from among alternatives offered by the researcher
positivism:	the view that psychological states directly cause each other and that the strength of the causal relationship can be expressed in numbers
social construction:	the process through which people take over a view of what is "real" from other people rather than forming it from their own experience (see next glossary item)
subjective reality:	a person's individual view of what is "real," constructed on the basis of the person's interpretation of his or her own experience with the world

Contrasting Approaches to Research

Simple everyday observation of people going about their lives shows that there are differences from person to person in behaviour; we do not all react in an identical pre-programmed way like robots to any given circumstances, but in ways that vary from person to person. *Enlarging knowledge and understanding of these differences* among people is the task of all research in the social sciences, regardless of whether it is qualitative or quantitative. "Enlarging knowledge and understanding" involves (a) identifying and describing differences (e.g., saying what their nature is, how they operate, etc.) and (b) saying where they come from, how they relate to each other, what factors influence their development, and so on. For example, it is commonly observed that children differ from each other in how well and how quickly they learn in class: What is the precise nature of such differences? Where do they come from? What can we do about them? Quantitative and qualitative research represent two differing ways of seeking to answer such questions.

Quantitative research: Quantitative research (a) starts by defining differences among people in terms of "standard" variables that apply to everybody, although different people display differing *levels or amounts* of the variables (such as intelligence or extraversion or tolerance for ambiguity), (b) measures *how much* of each variable different people have, and (c) seeks to establish the existence of cause-and-effect relationships among the variables. In the example of classroom learning already mentioned, observed differences among people could be expressed in terms of pre-defined outcomes of classroom instruction such as skill in the mother tongue, skill in using numbers, knowledge of local and world history, and the like (regardless of what the children involved regard as worth learning). Now the question arises:

What *causes* such differences? A common explanation is to invoke the concept of "intelligence." This has a universal, so to speak "official" meaning defined in advance by psychologists and educators (not by schoolchildren), and *applies to everybody* – everybody has some of it. It involves things like knowledge of facts, speed of recall of information, skill at logical thinking, ability to concentrate, and similar abilities and skills. Everybody knows at least some facts, everybody takes some time to recall facts – some a lot of time, some only a little – everybody can concentrate, to some extent at least, and so on.

***Quantitative data*:** On the basis of formal measuring instruments specifically constructed to *measure* achievement and intelligence each individual participant in a study can be given a numerical score on each of the variables involved (in the present example intelligence and achievement). These scores are based on a formal procedure specified by the outside experts, not for instance by participants themselves. For example, observable differences among the children in classroom learning could be measured using standardized tests, and expressed in a numerical form such as percentages or grade point averages of one kind or another, or at least in the form of an ordinal scale such as A, B, C, D, E. It is also possible to do the same for the children's intelligence, using existing standardized intelligence tests to obtain an IQ score for each child. Subsequently, calculations can be carried out to determine whether the two sets of scores (in the present example, an IQ score and a grade-point average) go together (e.g., are IQs associated with school grades in some way?), and to infer a cause-and-effect relationship of some kind (e.g., IQ causes school achievement). This paradigm characterizes the quantitative approach to research in the social sciences, and seems to be highly rational.

However, the case study presented in the box that follows demonstrates the blind spots of this approach.[2]

In the hope of identifying the school-specific variables which cause differences in students' grades in their final year of high school researchers studied no fewer than 14,000 students who had just completed secondary school. Variables studied included school *sector* (public versus private; higher fees versus lower fees), *location* (e.g., affluent versus low income suburbs), *resources* (e.g., teacher salaries, student-teacher ratio), *demographics* (e.g., proportion of students from migrant families), and *gender mix* (single sex versus mixed sex). All of these can be objectively specified and

[2] The study was presented at a national forum on research findings derived from the Longitudinal Surveys of Australian Youth (LSAY) in 2013 (NCVER, 2013).

quantified, and according to earlier research they all have an effect on academic achievement. The results showed that, in fact, although not irrelevant these variables accounted for a total of only about one-third of the variance of achievement – the researchers' modeling of the causal effects of such factors on achievement could not account for any higher a proportion. In other words, the factors specified by the researchers only told part of the story. The researchers speculated that the truly decisive properties of schools which affect students' achievement are variables like *pattern of educational leadership* or *quality of teaching*, but concluded that it is impossible to investigate such factors because there is no way of *measuring* them *objectively*.

Almost bizarrely, having invested considerable time and energy in a no doubt well-planned and professionally conducted and analyzed quantitative study, the chief researcher stated in a newspaper interview (*The Australian*, Wednesday April 10, 2013. p. 29) that it would probably never be possible to measure such factors objectively, and therefore impossible to learn more about them. In other words, according to this person *strict quantitative approaches are not and never will be capable of getting at the real heart of the matter being investigated*. Why is this? What alternative approach is there? What special insights can the alternative approach offer where quantitative approaches fail to get at the real issues? What is special about the alternative approach? How is research conducted using the alternative approach?

Qualitative research: Qualitative research attacks issues differently from the way outlined above. It is based on the fundamental idea that "reality" is *subjective:* Every human being *constructs* an individual, personal view of the world on the basis of his or her specific interactions with the external world (including the people who are part of this world). As a result, much of what a person, including researchers, regards as reality actually consists of a set of impressions, inferences and opinions in the person's mind. As Woodman (2014, p. 465) put it, social sciences:

> ... posit that people carry *implicit theories* in their minds concerning almost all aspects of their reality and their behavior is based (at least in part) on these theories or "understandings" about how things are related to each other, how the world works, why others behave as they do, and so on. [emphasis added]

Hawking and Mlodinow (2010, p. 39) went further by arguing that, from the point of view of people interacting with their surroundings, there is no such thing as an objective reality: what an individual person regards as "reality" is actually a model constructed by that particular person on the basis of a process of personal observation and interpretation of events. However, it all seems real to the person in question. This point of view was summarised in a down-to-earth way many years ago by the pioneering sociologist, William Thomas, in what became known as the "Thomas Theorem" (Thomas & Thomas, 1928, p. 572): "If men [sic] define situations as real, they are real in their consequences." Put somewhat differently: What people think is real might as well be real, since it affects people as though it were real.

This does not imply that we can make things be any way we like merely by imagining they are that way: For example, a person who jumped out of a twentieth floor window would not, in the usual run of events, float gently down to earth, no matter how strongly the person in question believed that he or she could fly. What is subjectively constructed is the way people *make sense* out of events they observe – for example how they explain why the person who jumped out of the window fell. Most readers would know from observation of the world that without physical support people or objects drop, and would (correctly) predict that a person who jumped out of a window would plunge to the earth. But why is this? Like me, most people would probably attribute plunging to the ground to a force we call "gravity." In fact, gravity is a construction for making sense out of our observation of what happens when objects are unsupported, and even if future science were ultimately to prove that there is no such thing as gravity, imagining that it exists has so far proved to be very helpful for dealing with the world, so it might as well be real (Thomas Theorem).

There is a second important aspect of the idea that each person has a constructed reality: many constructions for making sense out of the world are shared with other people – they are *socially constructed*.[3] Gravity is an example; most people who believe that gravity exists will not have thought it up for themselves, but will have been told about it by other people, such as teachers. Of great interest here is that social constructions may not be universal: Different groups and sub-groups may construct the same aspect of the observable world differently. However, different constructions may be equally helpful for getting along in life; that is, there can be more than one "reality," and alternative "realities" may all work

[3] This issue will be discussed more fully in Chapter 4 (see for instance pp. 68ff.).

quite well, no matter how absurd they look to groups not sharing them, as the following case study shows.[4]

> In the traditional Trobriand Islands culture before the arrival of Europeans, it was believed that a female became pregnant when a spirit entered her body and took on physical form in her womb. However, practical observation of the world showed that women often become pregnant after lying naked with men. The construction placed on this observation of the external world and – prior to the arrival of Europeans – shared by everybody in the islands was that it is easier for the spirit to enter a woman's body if the entrance to her womb is open, and men are helpful for achieving this. On the basis of this construction, Trobriander women who did not want to become pregnant made use of an effective method of contraception: they avoided having sex with men. Despite its complete ignorance of the biology of sexual reproduction, the system worked quite well, and when missionaries explained the North American-European understanding of how women get pregnant, the Trobrianders found it absurd and laughable.

The task of ***qualitative*** research is *to gain insights into these constructions of reality*, i.e., to tease out the nature of the world *as it is experienced, structured and interpreted* by people *in the course of their everyday lives.*

***Qualitative data*:** The information qualitative researchers collect in order to gain the necessary insights is largely, although not always, obtained by means of *narratives* in which the people being studied communicate the way they understand the world. This involves most obviously speaking or writing, but can involve other forms of communication such as diaries, literary or journalistic works, audio or video tapes, or artworks, or even result from close and systematic observation of people going about their lives in their usual manner. It is common for narratives to involve interviews although this is not necessarily the case. Sometimes there is not even direct contact with the people being studied, as in the example in the following box.[5]

[4] This example is based on reports by the anthropologist Bronislaw Malinowski (1929), although for the sake of simplicity I have taken some liberties with the details of his account.
[5] Several other examples of qualitative studies are given on pp. 46ff.

Thomas and Znaniecki (1927) studied written autobiographies and letters home, in which Polish immigrants to the USA presented their own life histories and explained to relatives back in Poland what was happening to them in the new country. The researchers also examined newspaper reports and the archives of Polish organisations in Poland and Chicago. Thomas and Znaniecki analysed the contents of the documents by working out the more general *meaning* of what individual immigrants said about their lives and how they made sense out of what was happening to them. The researchers identified (a) typical patterns in the way people interpreted the events of their lives and (b) patterns of adjustment based on the way the people dealt with their situation once they had interpreted it. The researchers then divided individual people into "types" based on various combinations of these two dimensions (way of interpreting events and way of dealing with situations once they had been interpreted): the philistine type who rigidly avoids change, the bohemian type, who recklessly accepts any change, and the creative type, who is discriminating in accepting some change but not all. (This form of analysis is referred to nowadays as *types and patterns analysis*, and will be discussed in greater detail in Chapter 7, pp. 142ff.)

Emergence of Modern Interest in Qualitative Methods

Recent discussions of research methodology in the social sciences have devoted a great deal of attention to qualitative approaches, and some writers have discussed qualitative methods as though they were new and revolutionary. However, despite the long tradition of quantitative research in the social sciences, qualitative methods have been used for at least as long as quantitative ones. In the 19th Century, when modern empirical behavioural science was beginning to take form, considerable use was made of qualitative methods both prior to the emergence of quantitative approaches and also more or less parallel to them. An example is *introspection*, in which researchers examined their own subjective experiences in order to obtain insights into how people make sense of themselves and the world around them. By the beginning of the 20th century there was already a considerable literature on this method (for a discussion see Titchener, 1912).

The (temporary) fall of qualitative methods: Around 160 years ago Fechner (1860) and colleagues in Germany and other countries hoped to discover objective, immutable, mathematical laws about human behaviour that would transcend the foibles of the individual

person and make behaviour understandable in terms of *universal mathematical laws*, and thus predictable and controllable. An example is the Weber-Fechner law defining the relationship between stimulus intensity and people's ability to detect changes in a stimulus ($S = k \cdot \log R$; the more intense the stimulus, the greater the change needed for the change to be detectable). The Englishman, Galton, designed and built instruments for objectively measuring pitch discrimination and similar sensory and motor abilities. These early researchers not only expanded the array of research methods being used in their own time, but also introduced quantitative methods that have endured to the present.

Their approach focused on (a) properties capable of being measured and expressed numerically, (b) instruments for making measurements of these properties, and (c) methods for analysing the resulting numerical data. Galton, for instance, not only invented the special instruments mentioned above, but also developed techniques for *quantifying*, among other things, the degree of exceptionality of performance (by *how much* do people differ from other people in achievement) and the degree of closeness of family relationships. Quantification of these two variables made it possible for him to study the inheritance of intelligence (which he called "genius," since the modern concept of "intelligence" did not yet exist). To enable him to express the *amount* by which variables were related to each other, he also worked out the basic ideas of what is now called "correlation," and his protégé, Karl Pearson, developed the Pearson Product-Moment correlation coefficient, which is still one of the fundamental statistical procedures in use today.[6] Throughout the considerably more than 100 years since the work of these pioneers, researchers in human sciences have used quantitative methods, and for much of that time this approach has been dominant.

***The survival of qualitative methods*:** Nevertheless, qualitative approaches did not entirely disappear, so that recent renewed emphasis on qualitative methods does not constitute the emergence of something that has never been seen before. Rather, it involves a resurgence of interest in approaches that have long been known and employed. This fact does not detract from the usefulness of qualitative methods or make them any less valuable for looking at certain research questions (for examples of such questions see pp. 47ff). However, it does weaken the apparent attitude of some writers who seem to suggest that qualitative methods represent a recent and newly discovered approach to research.

[6] Galton also used numerical methods to assess the efficacy of prayer, and came to the conclusion that, if anything it had the opposite effect from the one intended.

In anthropology and sociology, researchers' interest in the qualitative approach persisted longer than in psychology, and it thus has a stronger influence on modern thinking there than in psychology and education. This is reflected in the fact that these disciplines dominated early modern discussions of qualitative methods. It is true that sociology experienced a "quantitative revolution" starting in 1935, when the "Columbia School" gained the ascendancy over the "Chicago School," and sociological research experienced about 25 years of domination by the quantitative methodology familiar to psychologists. However, qualitative methods have again established themselves in that discipline. To take an example, the modern idea of "grounded theory," probably the most widely used approach to analysing qualitative data, which will be discussed in more detail in Chapter 7 (p. 134ff), dates back about 50 years in sociology (e.g., Glaser & Strauss, 1967), although it would be regarded as relatively novel by many psychologists.

As Elliott (1999, p. 252) remarked, referring in the main to psychology, especially clinical psychology, until fairly recently "the phrase 'qualitative data' was generally used to refer to the analysis of nominal scale or categorical data." In other words, many psychologists regarded the qualitative approach as no more than a set of procedures for dealing with the unfortunate case of data that were unsuitable for parametric statistical analysis, for instance because they were not interval data or were not normally distributed. Renewed and greatly broadened interest in qualitative methods among psychologists is part of an interdisciplinary trend to be seen in modern social sciences. The acceptance of feminism as an approach to research strengthened this trend, as did the postmodernist movement. Heron (1992) called for "psychology in another key," focused on "personhood" and the study of intentions and purposes. He expressly concluded that quantitative methods do not permit such an orientation. Some theorists even recognize the existence of a new sub-discipline of psychology, which they call "narrative psychology" (e.g., Sarbin, 1986).

Although qualitative approaches in the sense just described may still be relatively uncommon in psychology and educational science, it has become evident that qualitative ideas have become better known in recent years in these disciplines. Proof of this is, among other things, the growing emphasis on qualitative methods in widely differing fields of research, such as psychoanalysis – where Schaefer (1992) emphasized the usefulness of autobiographies – and cognitive psychology. In the latter area, Bruner (1990) came to the conclusion that a self-designed, selectively organized and logically structured internal "biography" of a person's own life is the core principle from which organized behaviour

results. Humanistic psychology (Maslow, 1962, Rogers, 1980) emphasizes that people make their own lives, even if they need a little help to do so in a healthy way.

***The paradigm wars*:** Qualitative and quantitative approaches to research in the human sciences are often contrasted as bitter opponents. In particular, proponents of qualitative research not infrequently seem to make an almost messianic claim that it represents the path to true enlightenment, whereas quantitative approaches define the road to damnation. In discussing this situation, Tashakkori and Teddlie (2010) amusingly referred to the "paradigm wars" (p. 3), and identified "paradigm warriors," who seem to be engaged in a fight to defeat quantitative methods and replace them with qualitative approaches. Tashakkori and Teddlie gave examples from both education and psychology. In the case of educational research Smith and Heshusius (1986) argued that qualitative and quantitative methods are *irreconcilable*. Lincoln and Guba (1985) appeared to seal the fate of quantitative methods by concluding that they are no longer acceptable. Thus, qualitative approaches seemed to have won the day.

However, it is not appropriate to talk of a "triumph" of qualitative methods over quantitative, although the former are considerably more prominent nowadays than in the past. It is important to remember that *both qualitative and quantitative methods of doing research are useful*. As Glaser and Strauss (1967) wrote in one of the most famous papers on qualitative methods, "… each form of data is useful for both verification and generation of theory (p. 17)." A good 30 years later, Strauss and Corbin (1998) drew attention to the increasing use of research designs involving combinations of qualitative and quantitative methods and concluded that grounded theory can readily be applied in either quantitative or qualitative research. In fact, there is growing interest in research paradigms which employ qualitative and quantitative approaches in tandem – so-called "mixed methods" – and these will be discussed in considerable detail later (see Chapter 6).

Thus, while it is true that this book contrasts the qualitative approach with the quantitative one, it does not adopt an adversarial position. Qualitative research and quantitative research are not seen as rivals, each trying to establish itself as the one true way. On the contrary, they are complementary or supplementary approaches. Both kinds of research are capable of adding to knowledge, although with differing strengths and weaknesses. Thus, the *incompatibility thesis* advanced by Lincoln and Guba (1985) is rejected. As will become more obvious later, the book also does not accept a second idea put forward by some radical qualitative theorists. This is the view that there is "… no difference between [qualitative research] and fiction" (for more detail, see Taylor, Bogdan & DeVault,

2015, p. 23). Thus, the book does not reject or ignore traditional, scientific norms in favour of flights of literary fancy.

***Weaknesses of quantitative research*:** To enthusiasts, qualitative research may even seem to be uniquely able to cast light on truly interesting questions, and to do this in a way that respects the humanity of the respondents, whereas quantitative approaches are presented as being less spiritually worthy and less able to deal with really worthwhile questions about real human beings. Indeed, it is worth noting that some elements of quantitative research design (e.g., "split plot" analysis of variance) were actually developed for research in agriculture, while traditional quantitative approaches can as easily be applied to research with animals or even insects as with human beings. Heron (1992) went so far as to argue that quantitative methods are incapable of studying "persons," because a person is "self-determining": In other words, quantitative methods are said to overlook *intention*, *purpose* and *understanding* in behaviour. Indeed, they can be used with cabbages, flatworms or bees, whereas this is not the case with qualitative approaches!

In fact, the claim that quantitative research somehow fails to grasp the real essence of the people it studies is not completely without substance. The people being investigated sometimes do seem to become irrelevant very quickly: For instance, the first step in the data analysis in multivariate quantitative studies often involves calculation of a correlation matrix. In such matrices neither rows nor columns contain people any more – they have vanished almost at the very beginning! This feeling of anti-climax, almost of disappointment is not uncommon in master's and doctoral students who conduct quantitative studies involving close personal contact with participants, even when the data analysis leads to an unequivocal rejection of the null hypothesis, normally the desired result and a happy event. They often express the feeling that the real object of their interest has somehow slipped out of sight, leaving them with a "clean" result, to be sure, but one that is only a fragment of what they were really interested in. Both researcher and respondents have, as it were, been "written out" of the research, almost from the very beginning. In the example that follows (see the box on the next page), the whole issue of training creativity had been reduced to the question, "Is there a difference in the mean scores of the trained and untrained groups?" This question was answered by testing the null hypothesis: "There is no significant effect of training on creativity," and rejecting it. Missing entirely were matters such as what acting creatively meant to participants, how they understood what had happened to them, or whether they felt different.

In a study involving the playing of games thought likely to facilitate creativity, a master's candidate spent 10 hours with each of about 30 people in either a control group or an experimental group playing various games with them, a total of about 300 person hours. Pre- and post-test data on various psychological aspects of creativity were collected and compared (experimental group vs. control group) by means of analysis of variance. Entering the data into SPSS took less than an hour, and the calculation of the F-values a few seconds. The value of the F-statistic for the interaction between treatment and group was significant – the null hypothesis could be rejected. This meant that the research had been "successful": After the treatment there were differences between trained and untrained subjects that had not been present prior to the training. However, instead of being pleased the student felt somehow flat and disappointed. So many meetings with so many people had somehow been reduced to a single F-value. What had become of the 300 person-hours of conversations, the human contact, the getting to know the subjects? Most of the information she had obtained in the course of her research had simply vanished. The student voiced her feeling in one brief sentence: "Is that all?"

The Focus of this Book

It must be recognized that there is no single way of collecting data that all writers would agree is exclusively *the* way qualitative research is done. The present book:

1. gives considerable emphasis to conducting and analysing *interviews*, because these are most frequently used in qualitative social science research, although other procedures are not ignored;
2. emphasizes methods of analysing and reporting data that *generate theory*, or at least cast light on existing theory, i.e., that go beyond mere description;
3. focuses on making qualitative studies satisfy standards of scientific rigour.

Qualitative research has three main weak spots. These involve the problems of

(a) *arbitrariness* (qualitative research seems to some to depend as much on the inventiveness and fantasy of the researcher as on hard facts);

(b) *lack of objective proof* (qualitative methods do not permit the testing of hypotheses via objective – statistical – procedures);

(c) *banality* (qualitative research is accused of doing no more than repeating what everybody already knows!).

The main issue, then, is how to deal with these weak spots in a way that meets the standards of scientific rigour. The following two chapters will provide a framework for comparing approaches to research and will show how quantitative approaches fit into the framework. Chapters 4–7 will look at these issues and outline methods for dealing with the weak spots in a rigorous way.

Chapter 2: The essential nature of all research

The task of all research is to *enlarge knowledge*. In some disciplines such as theology or philosophy this is mainly done by examining fundamental tenets which are regarded as self-evidently true, and drawing logical conclusions about what the world cannot but be like in view of the truth of the tenets. In the case of *empirical* research, by contrast, knowledge is enlarged by observing the world in a systematic manner (i.e., collecting data), analysing what has been observed, and drawing conclusions on the basis of this analysis. This is true of both quantitative and qualitative research. Both approaches to doing research involve a technology for carrying out the process just outlined in a way that yields rigorous, "robust" knowledge. How, then, do they differ? The key differences between the two can be understood in terms of six basic dimensions: design, setting, method of data collection, kind of data, approach to data analysis, and strategies for making generalizations. The criteria of rigour in research are *reliability and validity*, although these terms have a somewhat different meaning when applied to research methodology from what they mean when applied to tests, questionnaires, and the like.

Chapter Glossary

action research:	research aimed at understanding and dealing effectively with a specific issue or problem in a specific situation
control:	elimination of the effect of an irrelevant factor in a research study, often achieved by means of sampling (see glossary item below); not an issue in qualitative research
emic research:	research aimed at analysing a situation in terms specified by the people experiencing it
etic research:	research aimed at analysing a situation in terms specified by the researcher
macro-analytic research:	research aimed at investigating a broad context
micro-analytic research:	research aimed at investigating a specific setting
mixed methods:	research designs involving a combination of qualitative and quantitative methods
optimization:	achieving the best combination of reliability and validity possible under specific circumstances
reliable research	research whose findings would be replicated by a different researcher working with different participants

robust research	research whose findings are not just fantasies of the researcher, but stand up to critical examination
sampling	the selection of people for participation in a research project; done according to different principles in quantitative and qualitative research
valid research:	research which reveals genuine relationships among variables (internal validity) and/or which yields findings which apply in real life (external validity)

Fundamental Issues in Research Design

The task of all research is enlarging knowledge and understanding. This task involves (a) identifying and describing phenomena (e.g., saying what their nature is, how they operate, etc.) and (b) improving understanding of them (e.g., saying where they come from, how they relate to each other, what influences them, and so on). This is true for research in the social sciences just as it is for any other areas of science, although the social sciences focus on people and the way they organize their lives. The explanations offered by researchers differ from each other in principle in a number of ways, as is shown in the following sections.

External explanations*:* In theory it is possible to attempt to explain differences between people by attributing them to the external environment. For instance, it seems rational to conclude that two children differ in reading ability because one had in the past had greater access to books than the other. Even where some account is taken of factors "inside" the people in question, this could be restricted to looking at differences in biological structure and function, such as sensory perception – obviously, someone who is deaf would respond differently to auditory stimuli from someone with acute hearing. Indeed, some social sciences (e.g., sociology, anthropology) have developed explanations of differences from person to person that focus on the external world.

Very broadly stated in an over-simplified way, the goal of *sociological* research is to identify the properties of communities that lead to the behaviour of people who are members of the community. Such properties are thought to guide behaviour more or less *independently of the individual characteristics of the people involved*. The sociological approach focuses on two central issues: (a) "proximate *structural* characteristics" [emphasis added], on the one hand, and (b) "*mediating processes* of community social organisation" [emphasis added], on the other (Sampson & Wilson, 1995, p. 45). Proximate structural characteristics include factors such as socioeconomic status, level of education, housing, mobility, family structure, gender, age, or ethnic origin. Mediating processes include formation of groups, transmission of goals and values within groups, or enforcement of such goals and values by groups. Thus,

sociology emphasizes social construction of reality. In a nutshell, *anthropology* studies the knowledge, beliefs, myths, symbols, moral tenets, customs, games, and similar factors that are shared by the people in a community (e.g., Harris, 2006). These can be summarised as involving *culture, tradition* and *ritual*. They promote social organisation and guide interactions among people. They are acquired through, among other things, child-rearing practices, and are transmitted by communication between people, both verbal and non-verbal, as well as by example (i.e., they are socially constructed). People exposed to different environments acquire different knowledge, beliefs, customs and the like, so that cultures in the sense just sketched out are local in nature.

To take a concrete example of the external approach, economic, sociological and political research on migration focuses on external factors such as poverty, war, famine, political or religious repression, family disruption, rapid social change, unemployment, and the like, thus seeing migration behaviour as a reaction to external pressures and privations. This way of looking at migration behaviour was criticized by Cropley and Lüthke (1994) for ignoring the role of the individual person's personality. As these authors pointed out, migration occurs in all societies under all external conditions – provided that it is physically possible – and is often at its highest when external conditions are highly *favourable*. Furthermore, many emigrants come from comfortable circumstances and not from the underprivileged or dispossessed. Thus, the idea that in deciding to emigrate (or not) people respond in a strictly logical and calculated way to favourable or unfavourable external circumstances does not hold up.

Internal approaches: By contrast, Cropley and Lüthke (1994) emphasized the importance of *internal* approaches that take account of structures and processes within people that regulate the way they react to events in the external world. A large body of appropriate concepts exists. In psychology and education researchers and theorists have developed ideas like "personality," "perception," "cognition," "motivation," "attitudes," and many others. Psychological research is largely, although not exclusively, concerned with *describing* such internal factors and processes (their nature, magnitude, origins and development, method of action, and the like), and with *showing how they interact with each other*. The theoretical goal of these research activities is to enhance understanding of the nature and origins of "internal" differences between people. The practical goal is to help people cope with their lives better and, in the case of education, to learn better in schools and similar settings.

Etic versus emic approaches: A distinction that is closely related to "internal" and "external" involves the difference between collecting data (a) in the form of self-organized

statements made by people who are knowledgeable about a particular situation which is of interest to a researcher and (b) in the form of respondents' reactions to statements about the situation formulated and organized by the researcher (often by means of questionnaires or similar instruments). This distinction is well known in anthropology and ethnology, but less widely recognized in psychology or education. Pike (1967) referred to the difference as involving "etic" versus "emic" research. A recent discussion, largely from the point of view of anthropology, is to be found in Friedman and Schustack (2012).

For the purposes of this book, an etic investigation can be defined as being carried out *from the outside*: The researcher selects concepts for describing the situation being investigated which make it understandable to him or her and which are clearly 'scientific" in that they are well anchored in existing knowledge (i.e., the basic nature of the concepts is already known in existing theory and research). An emic investigation, on the other hand, can be regarded as carried out *from the inside*. It is based on self-selected and self-organized statements made by people who have experience of the situation being investigated. The people may or may not be consciously aware of the feelings, opinions, attitudes, values, hopes, ambitions, and the like which they express. What the respondents, for whom the situation being discussed is part of their normal life, say makes life understandable to them, regardless of whether the statements support the researcher's understanding of the situation or not. In principle, anybody who is familiar with a given situation is in a position to deliver emic information about it. This ability to deliver "insider" information about a setting and events in the setting is referred to later as involving "narrative competence" (see p. 79).

Macro-analytic versus micro-analytic research: In anthropology, ethnography, and sociology especially, the goal of research is often to reveal, describe, categorize or interpret characteristics of a broad field of action such as a culture, a society, or a group within a society such as for instance an occupational group. In psychology the focus is more often on individual people and their interactions with each other and with the circumstances in which they find themselves. This difference involves *macro-analytic* versus *micro-analytic* studies.

A "classic" example of a macro-analytic study is Hofstede's (Hofstede, Hofstede & Minkov, 2010) analysis of "cultural dimensions." On the basis of a study of more than 100,000 IBM employees in 53 countries, Hofstede identified six dimensions through which he argued *any society* could be classified (i.e., the dimensions are universal): Individualism vs. Collectivism, Power Distance, Uncertainty Avoidance, Masculinity vs., Femininity, Long-Term Orientation, and

Indulgence vs. Self-Restraint. Hofstede also worked out a way of calculating index values for any country on any dimension, so that a profile or "cultural map" could be calculated for each country: For instance, one country might be highly individualistic with moderate power distance, low uncertainty avoidance, high masculinity, a short term orientation and high self-indulgence, whereas a different country might be collectivist, and have low power distance, high uncertainty avoidance, extreme masculinity, a short term orientation and high self-restraint.

Micro-analytic studies, by contrast, focus on small sub-groups or even on individual people. As Lewin (1997, p. 145) put it, whereas macro-analytic studies are concerned with working out "general laws of group life," the micro-analytic approach focuses on the "diagnosis of a *specific situation*" [emphasis added]. The intention of this focus on the specific is sometimes to solve a particular specific problem. This focus on a specific and concrete problem probably reaches its peak in *action research*, where a "spectator" (a researcher) and an "agent" or agents (people actually experiencing the problem being investigated) carry on a discourse aimed at jointly solving the specific practical problem, not at the discovery by the outsider – the researcher – of universal laws of human behaviour. Both quantitative and qualitative research can be macro-analytic or micro-analytic, although the general thrust of quantitative research is macro-analytic, whereas qualitative research is largely micro-analytic.

Classifying Research Designs

All research methods, whether qualitative or quantitative, can be examined systematically by looking at them within a general framework encompassing six broad dimensions. Such a framework is outlined below.

The dimensions of research designs: Regardless of orientation, the empirical part of all research projects can be examined in terms of six fundamental dimensions:

- *design* (e.g., experimental, quasi-experimental, *ex-post-facto* design, non-experimental design)
- *setting* (e.g., laboratory, real-life setting)
- *data collection procedures* (e.g., special apparatus, tests, questionnaires, observation schedules, interviews)
- *kind of data* (e.g., ratio/interval, ordinal, nominal, non-numerical data, narratives)

- *kind of analysis* (e.g., statistical analysis, meaning based analysis)
- *strategies for generalizing findings* (e.g., hypothesis testing, hypothesis generation).

The essence of an experiment: The meaning of terms such as "laboratory," "real-life setting" or "questionnaire" should be obvious to readers, and expressions like "ratio/interval data," "statistical analysis" belong to the everyday language of empirical social sciences. However, some terms are less obvious (e.g., "narrative"), and these will be discussed in this or later chapters. The first thing that is needed is a brief explanation of "experimental" and related terms. Although researchers in the social sciences frequently speak of "experiments," they often use the term rather carelessly to refer to any situation where data are gathered in order to investigate a question or issue. What they really mean is "empirical." In this book, the word "experimental" is used more strictly: An experiment involves a research design in which there is:

(a) at least two clearly-defined variables, one of which (the independent variable) is thought to "cause" the other (dependent variable),
(b) a defined group (the *experimental group* – or more than one) that receives a *treatment* (the independent variable is manipulated in some way),
(c) one or more *control groups* (that do not receive the treatment),
(d) *systematic sampling* of the population under study, and
(e) *random assignment* of participants to experimental and control groups.

The purpose of these procedures is *control* of confounding variables, so that it is possible to make unequivocal statements about cause-and-effect relationships between independent and dependent variables. Confounding variables are unintended pre-existing differences among participants in a study that influence the effects of the treatment to an unknown degree and distort or disguise the effects of the actual intended treatment. Suppose that we were interested in differences in the quality of teaching in two schools, one of which was thought to be very good, the other less good. The children in the first school had an average IQ of 130, those in the second an average of 90. We might indeed discover significant differences in achievement between the schools, but would not know whether these were caused by between-school differences in teaching quality or between-student differences in ability (or of course by other factors): IQ would be a confounding variable. The usual way of dealing with such a problem would be to eliminate IQ as a variable (i.e., to *control* it). This is

often done by means of sampling, for instance by selecting samples from the respective schools that were matched on IQ. A second possibility is to control a potential confounding variable's effects by statistical means: If it is known how strongly the confounding variable correlates with the result of the treatment, the confounding variable's influence can be removed mathematically. For instance, in the example just given it would be possible to calculate how much IQ correlates with school achievement, and then to adjust the difference in achievement scores between the schools by removing the amount of difference attributable to IQ.

As designs depart further and further from these ideal conditions – for instance because random assignment is impossible (quasi-experiment) or because the treatment has already occurred prior to the conduct of the research (*ex-post-facto* design) – they depart further and further from the conditions necessary for a true experiment, and become non-experimental designs. These may suffer from one or more of:

(a) lacking a specific treatment,
(b) using no control group(s),
(c) depending on opportunity samples consisting of whoever is available and willing to participate i.e., no random sampling,
(d) having no control over confounding variables.

Stereotypes of quantitative and qualitative research: For the purposes of the present discussion, the dimensions listed above will be treated as dichotomies, although it must be emphasized that this represents an oversimplification – for instance, it is obvious that research settings form a continuum ranging from "pure" laboratory settings where the circumstances are completely controlled by the researcher, through settings that have some properties of the laboratory, to "natural" settings where events occur as they do in real life, whether this helps the researcher or not. An example of this continuum is seen in a study of mother-child interactions. At one extreme, observation was carried out at the university through a one-way mirror. The mothers and children were placed in a soundproof room, empty of all furniture except standardized tables and chairs, and their behaviour was rated using rating scales. Every mother was required to speak exactly the same words to her child, regardless of its reaction. At the other pole was a study following each mother in her real life as she coped with her regular day-to-day schedule, regardless of the fact that the telephone might ring or the child graze its knee, or a tradesperson come to do repairs, or the games chosen by the mother be different from family to family, without any regard for the researcher's plans or needs. It is easy to imagine intermediate positions between these poles, thus defining a continuum. None

the less, thinking in terms of dichotomies greatly simplifies discussion, and this will be done here for ease of understanding.

Six dichotomous dimensions yield 64 possible combinations of conditions, i.e., "types" of research design, and in theory all of these are possible. For instance, it would be possible to select an experimental and a control group using random assignment (conditions for a true experiment) and then conduct interviews (thus employing a data collection procedure more characteristic of non-experimental designs). However, there is a correlation among the dimensions listed above (design, setting, data collection procedures, etc.), perhaps the most obvious example being that setting tends to go together with design: For instance, in real-life field settings it is almost impossible to apply a true experimental design. Similarly, it is difficult to collect data with laboratory instruments in field settings, while it is impossible to conduct numerical analyses with purely narrative data.

In practical terms it is helpful to focus on only two of the theoretically possible combinations of design, setting, data collection procedure, kind of data, kind of analysis, and generalization strategies:

1. An experimental design in a laboratory, yielding numerical data collected via objective procedures, and leading to statistical testing of hypotheses. This represents an idealized quantitative approach.
2. A non-experimental design in a real-life setting, involving collection of verbal reports describing respondents' construction of the situation in question, and content-based analysis of these reports. This is an idealized qualitative approach.

Such oversimplified stereotypes are depicted in Table 2.1. It should be noted that the table actually confounds two dimensions of research: what is called "approach" in the table (qualitative vs. quantitative) and orientation (i.e., applied vs. basic). In effect, the table compares *basic* quantitative research with *applied* qualitative research. As a result, it may create the impression that there is no such thing as basic qualitative research or applied quantitative research. In fact, both exist. Nonetheless, there is a tendency for qualitative research to be more frequently applied than basic.[7]

[7] In fact, most research projects display some departures from the "perfect" types depicted in the table, but focusing on the idealized patterns to be found there helps make the contrast between the two approaches clearer.

Table 2.1: Characteristics of idealized quantitative and qualitative approaches

Dimension	Quantitative Approach	Qualitative Approach
Design	experimental	non-experimental
Setting	laboratory	field
Data Collection	instruments (e.g., electronic or mechanical devices, tests, questionnaires)	collection of "narratives," either already existing (e.g., diaries), or new (e.g., interviews)
Data Type	numerical (ratio, interval, ordinal)	descriptive (e.g., interview protocols, written records, videos)
Analysis	descriptive and analytic statistics	analysis aimed at revealing meaning
Generalization	focus on testing hypotheses	focus on generating hypotheses

Doing Good Research

What makes qualitative research scientifically rigorous? The stereotypical quantitative approach depicted in Table 2.1 corresponds well with what many people regard as the essence of the scientific approach. The stereotype of qualitative research, by contrast, may seem to involve nothing more than interacting with people and drawing conclusions about them, something that everybody does all the time. How can this be scientific? As Kromrey (2009) put it, qualitative research may even find itself competing with common sense, which may not claim to be scientific but is nonetheless very useful in helping people get along in life. When research findings agree with common sense they are derided as banal and simply stating the obvious, but when they disagree with it they may be treated with the suspicion – a typical "damned if you do, damned if you don't" situation.

Shaughnessy, Zechmeister and Zechmeister's (2014) discussion of this issue is very helpful. They agreed that both "scientists" and "non-scientists" learn about behaviour by observing people going about their lives. The crucial difference lies not in what people in the two groups do or how much of it they do (i.e., it is not quantitative), but in *how* they do it (i.e., the difference is itself qualitative). The differences lie in three main areas:

1. *Organization of observations*: Non-scientific observation is casual, informal and may be unconscious, whereas scientific observation is conscious, systematic and purposefully directed towards goals

specified beforehand.

2. *Awareness of distorting factors*: Non-scientists have little or no awareness of distorting factors in their interactions with other people, whereas scientists should be acutely aware of them.[8]
3. *Record keeping*: In the case of non-scientists, record keeping relies on casual recollection, with all its distortions, which have been well known at least since the work of Bartlett (1932). Scientific record keeping, by contrast, is formal and systematic, and involves written or electronic records.

Three further dimensions should be added to these:

4. *Analysis*: Non-scientists draw conclusions in an unsystematic way with little awareness of the effects of their own expectations and biases and little distinction between these and systematic conclusions. Scientists are aware of distorting factors and distinguish clearly between well-grounded conclusions and speculations, tentative hypotheses, even wishful thinking.
5. *Generalizing*: Non-scientists may generalize with reckless abandon, Assuming that the conclusions referred to in 4 above apply in a wide variety of other settings, whereas scientists are keenly aware of the limits to generalization, preferring to state many of them as suggestions for clarification through further study.
6. *Communicating*: Non-scientists may be vague about details and chiefly interested in persuading other people to accept their views (as in much journalism), whereas scientists carefully describe the procedures that led to their conclusions, and draw attention to aspects of their work where caution may be called for. This is at the core of differences between truly scientific writing and areas such as popular science, or journalism. Writers in the latter domain are chiefly interested in persuading a mass audience to accept their views, whereas scientific writers are chiefly

[8] These distorting factors are discussed in greater detail on pp. 70-71 (e.g., selective perception, dissonance reduction, etc.).

> concerned with providing sufficient information for specialist readers to draw their own informed conclusions.

The question now arises of how to judge the strengths and weaknesses of the two research approaches. To do this, it is necessary to be able to answer the question, "What are the characteristics of 'good' research?" The sections that follow are concerned with developing a framework for answering this question.

Reliability and validity: The question can be addressed by looking at two concepts: *reliability* and *validity*. Validity has two forms: internal validity and external validity (see below). Although the basic ideas are similar, reliability and validity have a different meaning in the present discussion from their meaning in test theory, and it should not be assumed that the passages that follow simply repeat test-related discussions. The key ideas for the present purposes are as follows:

1. The *reliability of research* refers to the likelihood that its findings would be replicated by a different researcher working with different participants. Highly reliable findings have a strong likelihood of being replicated, whereas unreliable findings do not. The practical importance of reliability is that unreliable findings cannot be *generalized*, i.e., the information they provide cannot be used to understand settings over and above the one in which the information was obtained. Unreliable findings may be very informative or interesting, but they are the result of a particular interaction between a specific researcher and the specific participants in a specific study.
2. The *internal validity of research* refers to the likelihood that apparent relationships among variables are genuine and are not, for instance, the result of some other undetected factor(s). This is easiest to understand by thinking of cause-and-effect relationships: Suppose, for instance that a group of boys did better on a maths test than a group of girls. It might be concluded that gender *causes* superiority in maths. However, if attitudes to maths and previous experience with maths were much more favourable among the particular group of boys in the study in question (for whatever reason), these advantages might well be the real reason for the differences in test scores. Because of lack of control of such *confounding variables* the research would have low internal validity.
3. The *external validity of research* involves the extent to which its findings continue to apply in new settings that are unlike the circumstances under which

the study took place, especially real-life settings. For instance, if a researcher found in a study that smiling at people made them behave in a friendly way in a large unruly queue at an airport, external validity would be high if smiling produced the same beneficial effects in other unrelated settings such as after a car crash or during a riot at a football match.

It is important to note a number of important issues in discussing reliability and validity as terms to describe research designs:

1. *Reliability and validity are continuous variables*. They are not discrete properties of a research project that are either entirely present or entirely absent – research is not either reliable/valid or not. Reliability and validity range, at least in theory, from non-existent (expressed as a coefficient of 0.00) to perfect (1.00), with all intermediate values being possible. Thus, one project may have low reliability/validity, another high reliability/validity, others fairly high or fairly low levels, still others intermediate levels, and so on.
2. *Reliability and validity do not necessarily co-vary*. It is possible for a project to have, let us say, high reliability but low validity, or the reverse. In practice, for reasons that will be mentioned below, the two properties tend to correlate, but this is not theoretically necessary.
3. *High reliability and validity of research are norms or ideals* that researchers would like their studies to approach, the closer the better. They are not states that are either present or absent – a study is not either "reliable" and therefore good, or else "unreliable" and therefore bad (or "valid "and therefore good versus "invalid" and bad), but as reliable (or valid) as possible.
4. *The level of reliability/validity of a study is only a theoretical property*. Except perhaps in the most unusual cases, reliability/validity coefficients of research are never actually calculated. Thus, when it is said that a particular study has, let us say, "high internal validity," this usually mean that it *looks as though* it has this property because it possesses characteristics that are known to be related to high internal validity (such as random sampling, use of a control group, etc.).
5. *Statements about the reliability/validity of research are probabilistic* in nature – a given project may have a high *likelihood* of being reliable/valid because it keeps to the rules of good practice, but it is not actually known whether the study really achieved these.

6. *Reliability and validity are potentials rather than established facts*. General statements that particular approaches such as a quasi-experimental design or use of narratives as the method of data collection have "high" reliability or validity mean only that studies that follow the rules for that kind of approach have the *potential* to be highly reliable/valid. To take an example, qualitative studies are often said to have "high" external validity (i.e., their findings are very plausible as statements about the real world). This means only that specific, individual studies employing a qualitative approach offer the opportunity of achieving high external validity, or that they are more likely to yield findings with high external validity, not that this is guaranteed. Naturally, it is possible to conduct research badly, regardless of the particular approach, with resulting low reliability/validity. Thus, it is appropriate to say that an approach is "favourable" for achieving high reliability/validity. Similarly, when it is said that a particular approach has "low" reliability/validity this does not mean that it is impossible for research of this kind to be reliable/valid, but that it is more difficult. For instance, as a group, experimental designs have "low" external reliability. This means that it is frequently difficult to transfer the findings of such studies in a plausible way to the world outside the laboratory. However, a particular experimental study may overcome this problem and be very plausible.
7. *It is possible to enhance or increase the probability of a study's reliability and validity*. This is done by building into it characteristics that are known to be favourable to these properties. In the case of quantitative research this means via *sampling and control*. How to enhance the reliability and validity of qualitative research is discussed specifically in Chapter 7. Of course, it is also possible to "threaten" or "endanger" reliability/validity by ignoring the rules of good practice. It is also possible for strengths in one area of a study (e.g., design, data collection procedure, method of data analysis) to compensate at least partially for weaknesses in another. This means that it is most appropriate to think of certain conditions as "favourable" for reliability and validity, others as placing them "at risk."
8. *Specific, individual studies may overcome some of the weaknesses of a particular approach*. Thus, one kind of research could have, let us say, a low

probability of high external validity, but in an actual study the validity might be high. Although qualitative studies as a group run the risk of low internal validity, it is possible to imagine specific qualitative studies with high internal validity. In reporting a study (see Chapter 8 for appropriate discussions) emphasis should be given to the way in which an attempt was made to minimize the effects of factors likely to place reliability and validity at risk.

9. *It is usually necessary to compromise on reliability and validity*. Particular research approaches (e.g., qualitative vs. quantitative) possess inherent strengths that enhance reliability/validity and, at the same time, weaknesses that endanger them. Thus, a particular project is usually a compromise, with some aspects favouring reliability/validity, some placing it at risk.

Rigorous research: Any research approach should:

(a) *optimize reliability* (i.e., go as far as possible towards ensuring that the findings are not simply the result of the preconceptions and expectations of a single researcher or participant or of the special and unique interaction between them, but would also emerge if the cases in question were analysed by a different researcher following the procedures described in the research report or if the same topic were investigated with different participants;

(b) *optimize internal validity* (i.e., do whatever can be done to ensure that findings draw attention to genuine relationships among variables);

(c) *optimize external validity* (i.e., show as convincingly as possible how findings can be applied to other settings and to real life – ideally, findings should offer insights going beyond the particular cases studied in the research project, and encompass people in general).

The term “optimize” is used here because reliability and validity can be regarded as ideals that can never be reached entirely, but towards which researchers can constantly strive. Although it has been pointed out that reliability and validity can vary independently of each other, there is some degree of correlation among the various dimensions of a research project: Conditions that favour high reliability and high internal validity (see the discussions above of what these are) often run the risk of endangering external validity, although this is not necessarily the case. The task is then not that of doing research that is perfectly valid (or reliable), but of making the combination of validity and reliability as good as possible (i.e., optimized) A research design that strives for optimized reliability, internal validity and external validity, and is aware of and takes account of weaknesses in these, can be said to be “rigorous.”

Research dimensions, reliability and validity: There is a systematic relationship between the dimensions of a research study listed in Table 2.1 and reliability and validity. These relationships are summarised Table 2.2. However, it is important to stress again that the "risks" listed in the table are not fixed and immutable consequences of a particular approach, but rather tendencies or possibilities. Thus, when the table reports that the internal validity of non-experimental designs is "at risk," this should not be regarded as indicating that low internal validity is an unavoidable consequence of such designs. The statement draws attention to a *danger* or *threat* that is harder to avoid in non-experimental than in experimental designs. In a similar way, although experimental designs offer good prospects of high internal validity this is not guaranteed. As can be seen by combining information from Tables 2.1 and 2.2, neither "pure" quantitative nor "pure" qualitative approaches offer highly favourable conditions for all aspects of reliability and validity, although it would be possible in theory to use "mixed" approaches combining some aspects of both to enhance the likelihood of high reliability, high internal validity and high external validity. Indeed, there is a literature on such approaches (e.g., Tashakkori & Teddlie, 2010).

Revised concept of validity: Kvale (1995) criticized what he saw as the excessive weight given to conventional notions of reliability and validity in discussions of the rigorousness of research. According to him, this approach rests on the assumption that there is (a) an objective reality and (b) knowledge about this reality in people's minds. The job of research is (c) to construct a "map" of this reality. The research is then judged to be valid if there is a high degree of correspondence between the map yielded by the research and the objective "facts" it investigated. However, Kvale did not reject validity out of hand. Rather, he drew attention to the fact that the concept takes on a special form in qualitative research. To anticipate later chapters, he argued for a revised definition of validity derived from classical philosophy of truth rather than the "mapping of reality" approach. According to Kvale, there are two criteria of validity:

(a) the "coherence" criterion that refers to the *consistency and internal logic* of a research study;

(b) the "pragmatic" criterion that refers to its *practical usefulness*.

In this book a similar position is adopted: The idea of validity is not simply abandoned, but is replaced by a revised concept that emphasizes consistency, logic and usefulness.

Table 2.2: Dimensions of research and reliability and validity

Dimension	**Reliability**	**Internal Validity**	**External Validity**
Design			
True experiment	Highly favourable	Highly favourable	At risk
Quasi-experiment	Favourable	Favourable	Lower risk than experiment
Ex-post-facto	Favourable	Favourable	Lower risk than experiment
Non-experimental	At risk	At risk	Highly favourable
Setting			
Laboratory	Highly favourable	Highly favourable	At risk
Real life	At risk	At risk	Highly favourable
Data Collection			
Instruments, tests, questionnaires, etc.	Highly favourable	Highly favourable	At risk
Narratives	At risk	At risk	Highly favourable
Data Type			
Numerical	Highly favourable	Highly favourable	At risk
Descriptive	At risk	At risk	Highly favourable
Analysis			
Statistical hypothesis testing	Highly favourable	Highly favourable	At risk
Content analysis	At risk	At risk	Highly favourable

The balance of this book can be seen as a discussion of how to conduct reliable and valid (i.e., rigorous) qualitative research. The following chapters are concerned with questions such as:

1. What are the special characteristics of qualitative research that make it different from other approaches (i.e., its internal logic)?
2. How is it possible to conduct qualitative research that is rigorous (i.e., that has high reliability and validity)?
3. How are qualitative data analysed in reliable and valid ways?
4. How can the results of qualitative studies be interpreted and reported (i.e., made useful)?

This chapter and the one that follows (Chapter 3) are concerned with background material, especially theory and history. Chapters 4-7 focus on techniques for doing qualitative research. It would be possible to read the book without taking any notice of Chapters 1-3, focusing instead only on practical issues. However, although the intention is to be practical and introductory, a certain minimal understanding of the theory of practice is necessary for informed and critical application, and this is preferred to blind following of rules. Tashakkori and Teddlie (2010) divided their discussions of the practice of qualitative research into four "phases," and a structure similar to theirs will be adopted in this book. Chapter 4 is mainly concerned with *conceptualization* of a project: What is it really about and who are the people who know about the issues in question? Chapter 5 focuses on *methodology*: How can data be collected? Chapter 6 extends the discussion of data collection by introducing approaches which combine qualitative and quantitative methods (i.e., mixed methods). Chapter 7 discusses *data analysis*: How can the contents of the information obtained from the participants (or "constructed" by researcher and respondent in the course of their interaction, as some writers would put it) be teased out? Finally, Chapters 8 and 9 outline procedures for *generalizing and reporting*: How can researchers use the information they gather to enlarge understanding of social science phenomena, and work out useful practical advice?

Chapter 3: The special nature of qualitative research

Qualitative research emphasizes (a) *discovery,* (b) *broadly defined goals*, (c) *open research questions*, (d) *emergent contents,* (e) *generation of hypotheses* and (f) *credibility*. It can be understood in terms of its understanding of reality, the kinds of question it examines and the methods used to find answers to the questions. Qualitative research is largely inductive and open in nature, whereas quantitative research is mainly deductive and positivistic. Qualitative methodology raises particular problems for researchers, largely connected with rigour, and relies heavily on special criteria of validity such as soundness of reasoning or plausibility of conclusions. Some researchers turn to qualitative methods because they expect them to be easier than quantitative methods. However, qualitative research makes special personal demands on researchers that are different from those of quantitative approaches; for example, the ability to elicit personal accounts from participants or the ability to think inductively. In addition, it raises special ethical issues, because it not infrequently asks participants to reveal how they construct personally significant or even painful events.

Chapter Glossary

deductive thinking:	inferring unknown specific events from a known general law
ethics:	rules or principles which provide guidance on how to behave in a moral or proper manner
ex-post-facto design:	a research design in which the treatment has already occurred prior to commencement of the research
inductive thinking:	inferring a general law from known specific events
natural setting:	the real-life situation in which behaviour being investigated occurs
object of study:	the issue, problem, or phenomenon with which a research project is concerned
open research question:	a research question that is only loosely defined at the beginning of the investigation and is adapted as data are analysed
trustworthiness:	the extent to which research findings can be accepted with confidence that they accurately reflect reality
YARVIS:	a cluster of characteristics (young, attractive, rich, verbal, intelligent, social) which makes certain people very pleasant to interview

The Essence of the Qualitative Approach

As Hollis (1994) put it, the qualitative approach seeks to *understand* phenomena, whereas the quantitative approach seeks to *explain* them. This means that:

(a) The goal of qualitative research is emic: to describe and analyse the world *as it is experienced, interpreted and understood* by people *in the course of their everyday lives*.

(b) It is frequently micro-analytic.

(c) It is often (although not always) focused on a specific problem in a specific situation.

By contrast, quantitative research is frequently (although not always) etic and macro-analytic, and focused on discovering new general laws of behaviour or enlarging knowledge of existing laws.

The qualitative approach can be understood by looking at three dimensions: Its *ontology* (i.e., the way in which reality is understood), its *epistemology* (i.e., the kinds of question it regards as important), and its *methodology* (i.e., the procedures it employs for answering the questions just mentioned).

1. *Ontology*: The qualitative approach involves the view that (a) each person actively "constructs" an individual "reality" out of his or her own particular experiences, (b) this *reality differs from person to person*, and (c) it is shaped by interactions with other people, i.e., reality is *'s*ocially constructed*."* This means that people are not "subjects" who passively receive whatever an objective external reality offers them, but that they are "actors" who "construct" the world they live in.
2. *Epistemology*: Qualitative procedures emphasize questions such as: How do people make sense of the external world? (b) How do they understand how they themselves and others fit into this world? (c) How do they decide how to act in terms of their own reality? How do they communicate their understandings to other people?
3. *Research methodology*: The social sciences are empirical disciplines in which advances in knowledge are achieved via *observation of people's behaviour*. In this they differ from non-empirical disciplines that advance understanding either by following the rules of an internally coherent, closed system of axioms that are taken as indisputable truths (e.g., Marxism, theology) or by the application of logic (e.g., mathematics, philosophy). This use of observation of

behaviour as the source of new knowledge is shared by both qualitative and quantitative research methods. However, the qualitative approach differs from the quantitative in the following way: It involves

- *observing* one or more people in a real life setting and recording what happens or *actively eliciting descriptions* of real life from people, for instance by means of interviews. These descriptions are almost always verbal, very frequently spoken, and are often referred to as "narratives";
- *recording* what the people say or write, or how they behave. This often involves a written text, even when the original record consisted of audio or video tapes;
- *interpreting* what the people said. From the point of view of the present book, the purpose of this interpretation is to use the concepts of a particular discipline such as sociology or psychology to understand what was observed and recorded in the steps already outlined. The results of this step constitute the *findings* of the research;
- *generalizing* these interpretations by relating them to other people or settings, or to existing theory (or both). This step yields the *conclusions* of the study. The conclusions may consist of a general description of a setting or a group of people such as a description of interpersonal relations in, let us say, a hospital (more typical of sociology or anthropology than of psychology or education), or of the extension and clarification of existing theory regarding some phenomenon such as the development of intelligence (more typical of psychology and education).

Contrast with the quantitative approach: The special nature of the qualitative approach's ontology, epistemology and methodology can be made plain by contrasting them with the quantitative equivalents. (The latter is usually already well known to anybody who has completed an introduction to research methods.) At the heart of quantitative methods is *positivism*, a view of the human psyche that rests upon the following assumptions:

- When we conduct behavioural research we are dealing with clearly defined properties of human beings;
- These properties are present in relatively stable, specifiable amounts in all individuals;
- The properties take the same form in all these people;
- Different people possess different amounts of the properties under investigation;

- Researchers possess instruments capable of measuring these amounts;
- The amount of the property in question can be expressed in numbers;
- It is not even necessary for participants to be aware of the property the researcher is studying – it is, so to speak, not "their" concept but "ours." For instance, schizophrenic patients do not spontaneously use terms such as "over-inclusive thinking." They say things like, "Ideas jumble themselves up in my head." It is the researchers who interpret such everyday statements in terms of psychological concepts;
- The purpose of research is to demonstrate the applicability of existing "laws" in new situations and thus to extend the range of situations for which they are valid and/or to refine and perfect the laws.

Transferring existing "laws" to new situations and demonstrating that they apply there too involves *deductive* thinking.

Qualitative methods: By contrast, the ideas at the core of the qualitative approach are, in a sense, the mirror image of the positivist principles just stated. In particular, qualitative approaches emphasize that:

- The task of research is *to discover how people see the world*, not how much they possess of certain universal characteristics;
- To do this researcher and respondent must work together *to reconstruct* the *respondent's conceptualization* of the world – research is a process of cooperation between researcher and respondent;
- the process of interpreting data frequently involves *inferring* general hypotheses from particular information (the hypotheses come at the end), whereas quantitative methods involve *confirming* particular hypotheses derived from existing general statements (the hypotheses already exist at the beginning). Thus, in qualitative approaches theorizing is often based on *inductive* reasoning.

Put briefly, the task of qualitative research is to find out how people "… *impose* order on the flow of experience to make sense of events and actions in their lives" (Riessman, 1993, p. 2) [emphasis added]. As a result, qualitative research designs in social science usually involve observing and recording people's behaviour either in natural settings, for instance via participant observation, or as the people themselves recall such settings (e.g., by means of various kinds of narratives such as interviews). This can be contrasted with quantitative approaches which regard subjective properties of individual research subjects as disruptive elements with the potential to confuse the issue. Such factors are only considered

in research to the extent that they can be measured and quantified, and the purpose of doing this is to eliminate them from the study in question (i.e., to "control" them). Statistical analyses of data focus on aggregated scores and group statistics such as means or variances, and thus eliminate the peculiarities of individual people from the data. Qualitative researchers, by contrast, seek to adopt the individual perspectives of the participants and *to think themselves into* the system of experiences and constructions these people are asked to reveal in the study.

The adoption of the principles outlined above leads to a qualitative research orientation that emphasizes (see also Elliott, 1999, p. 252):

- *discovery* (as against confirmation of the expected)
- *broadly defined goals* (as against a set hypothesis)
- *open research questions* that may change in the course of the study
- *emergent* content themes (i.e., themes that develop in the course of the analysis)
- *generation of hypotheses* rather than confirmation/disconfirmation
- *credibility* as the criterion of scientific soundness (as against sampling and measurement technology)

The Special Properties of Qualitative Research

Non-experimental designs: As a rule, qualitative studies are not experimental but descriptive, and are carried out under conditions that resemble the everyday life of the people involved – not for instance in a laboratory. Qualitative designs focus on optimizing the *external* validity of findings, whereas quantitative approaches emphasize *internal* validity. This internal validity is assessed in terms of technical criteria such as control of confounding variables, construction of random samples, or satisfying the formal criteria for application of statistical procedures. External validity, by contrast, derives from properties such as *authenticity, plausibility, insightfulness* or *usefulness*. The central question is not, "Is this design technically perfect?" (i.e., internal validity is paramount) but "Does this design help us to understand the phenomenon that is being investigated – as it is conceived by the participants – better?" (i.e., external validity is paramount).

Because the "treatment" that led to the construction of reality of a particular participant had already occurred prior to the research study currently being conducted (in the course of the participant's life), qualitative research designs are usually *ex-post-facto* designs.

It is conceivable (at least in theory) to use quasi-experimental designs in qualitative research: For instance, a group of participants who had had particular life experiences in the past could be compared with the members of a group who had had different experiences in their lives, although this is uncommon. In qualitative research genuine experimental designs are also very uncommon, because such designs require random sampling, assignment to "treated" and "untreated" groups (experimental group vs. control group), control of confounding variables, and deliberate manipulation (treatment) of the experimental group (but not the control group). Because such conditions (a) require that the researcher possesses advance knowledge of the relevant causal factors so that instruments/techniques can be selected for measuring them, (b) treats additional factors as an annoying source of error and controls them through various techniques such as sampling or statistical control, and (c) deals with (a) and (b) by collecting data under closely controlled conditions or even in a laboratory, experimental designs usually contradict the principle of qualitative research that data should be collected under *everyday conditions that resemble day-to-day life*. For these reasons, using "classical" quantitative criteria to classify and analyse qualitative designs hardly makes any sense.

Openness: In traditional quantitative research, the research question is always derived from *existing theory*. Researchers study what is already known from earlier findings, and formulate a formal hypothesis on the basis of this material. This hypothesis is then tested, using an appropriate design and objective measurement procedures (frequently tests, scales or instruments of some kind) and statistical tests. The purpose is to test whether the hypothesis derived from earlier findings can be transferred to a new setting and confirmed as applying there too. Without existing knowledge and appropriate theory about the issue being investigated there would be no hypothesis and, as a consequence, no research study.

By contrast, qualitative studies are *open*. While it is true that they have to have a clearly-defined object of study, i.e., they have to investigate something specific, they can commence without any theory at all, for instance simply because of the researcher's interest in some topic or issue. This interest can result from simple curiosity, from a hunch or an intuition, or from special involvement in an area. For example, a single parent could be active in counselling others in a similar situation, and could be interested in obtaining information about how other people handle their lives, or a bank clerk who is active in the union movement could investigate how other employees conceive their relationship to their employer. This does not mean that qualitative research is not interested in theory: In order to understand any object of study researchers must collect, organize, analyse and reflect upon data, and must convert the data into scientific insight. Theory is essential for achieving this.

However, in qualitative research the theorizing often *follows* the data analysis. In other words, theory can play its main role *at the end* rather than at the beginning.

The exact topic of a qualitative study can even *emerge* from the research itself; in other words, a clearly formulated research question can develop during the investigation (especially in the course of the analysis of the data), rather than being worked out in detail prior to the research commencing, as is the case with quantitative studies. Or, in the words of Charmaz (2014, p.1), qualitative research involves "iterative strategies of going back and forth between data and analysis," so that there is a constant interaction between data and emergent theory. A topic that arises through this interaction is referred to as "emergent" (see p. 126). The following example illustrates the way in which a topic can "emerge" in the course of the research, rather than being defined in advance.

An emergent topic: In the mid-2000s a large European airfreight firm was experiencing difficulties with its cargo handling division: Experienced and highly valued freight loaders were resigning in large numbers, and new recruits staying only a few weeks. In casting around for a possible explanation management decided that a new computerized loading system which had recently been taken into service must be the culprit and, in order to analyse the precise nature of the problem, a questionnaire was designed by in-house researchers with a psychological background. This involved items like: "I find it difficult to understand the loading instructions given by the computer," "I object to being given orders by a machine," or "Inputting information into the computer is too complicated and time-consuming." The loaders responded to each item by selecting an alternative ranging from "agree completely" to "disagree completely" on a seven-point scale. Responses to the questionnaire quickly showed that, in fact, the workers expressed approval of the new computer-guided loading system. It was easy to use, gave sensible and easily understandable instructions on how to load freight, and did not insult the loaders or make them doubt the value of their pre-computer efforts. But despite this, the loaders continued to resign, and the questionnaire was adjudged to have been a failure, since it contradicted management's theory of where the problem lay and gave no hint of its source. Fortunately, the questionnaire included a single open item where the workers could express their own views rather than responding to suggestions made by the designer of the questionnaire. The open item's wording was as follows: "What is it like working as a loader?" Almost by chance the researchers noticed that many loaders had made use of the item to

express their dissatisfaction with the firm's senior management. A closer analysis of their comments showed that the problem was not the new loading system at all, but a strong feeling that management had no understanding of the difficulties of the work of cargo handlers and did not care about them. The result was that the loaders believed that their firm was being run by incompetents, and felt a sense of alienation from their employer.

The employees' alienation was a finding which came as a complete surprise for management. They thought the employees respected and trusted them and needed only some training with the new loading system in order to make them happy. The topic "distrust of management" was completely unexpected and had not been thought of at all prior to the commencement of the research – instead of being specified in advance, it "emerged" in the course of the investigation. As a result, no hypothesis about it had been formulated and no items about it had been included in the questionnaire. Only the lucky inclusion of the open item revealed the true problem. The questionnaire, with its pre-formulated items constructed on the basis of the researchers' expectations, was a typical quantitative instrument, although by no means an exclusive example of how such research is done. The single open item involved a typical general and unstructured question of the kind often used, although not exclusively, in qualitative studies in order to provoke respondents to express their views, for instance in an unstructured interview, a method of data collection which is very frequently used in qualitative research. The two kinds of item stand in stark contrast to one another, and this contrast will be sharpened in the following sections.

The basic principles of qualitative research: The ideas just outlined can be summarised in five basic principles. These are as follows:

1. *Research question*: In qualitative research it is important to investigate questions involving the intentions and purposes of people, the "Why?" "How?" and "What kind?" are important, when looking at social science phenomena, not just "How much?" The latter question ("How much?") is the domain of quantitative methods.
2. "*Philosophy*" *of research*: In order to increase knowledge, research focuses on people's direct experience with their immediate, everyday world, and proceeds through stages of (a) recording participants' narratives, (b) description of what they say in terms of discipline-based concepts and (c) explanation of what this means for theory in the particular discipline.

Since it proceeds from specific cases to general explanations, the process is *inductive*. The explanation is not infrequently stated in the form of a hypothesis, i.e., the research **ends** with a hypothesis, whereas quantitative research *begins* with one.

3. *Method of gathering data*: People's experience of the world and their relationship to it can best be investigated by allowing them to describe these phenomena as they themselves experience them. In other words, some kind of narrative of the people being investigated is needed. The dominant form of narrative is the interview, although the extent of its dominance varies from discipline to discipline.
4. *Roles of researcher and subject*: The people who are often referred to in quantitative studies as "subjects" then become *partners* with the researcher in the reconstruction of their own experiences and their ways of understanding them. These people are referred to in this book as "participants" or "respondents."
5. *Data analysis*: The fundamental task of the analysis is to *interpret* the narratives, i.e., to work out their *meaning*. As a rule, the researcher makes a protocol of respondents' narratives and uses these (a) to describe the situation of the participants and (b) to work out the implications of the narratives for relevant theory.

Examples of Qualitative Research Questions

Qualitative questions: A simple example of a quantitative research question would be "Is there a difference between the level of intelligence of men and women?" For purposes of research design this is almost always expressed in the form of a null hypothesis ("There is NO difference"), despite the fact that it is hard to imagine anybody undertaking research with a genuine expectation that no differences would emerge. To answer this question it would be necessary to measure how much intelligence samples of men and women possessed, compare the two amounts with the help of appropriate analytic statistics in order to decide whether or not the null hypothesis could be rejected, and then draw general conclusions. This would involve (a) knowing in advance what "intelligence" is; (b) possessing instruments for measuring it; (c) being able to express its amount in numerical form; (d) already having a hypotheses about its distribution across gender groups; (e) testing this hypothesis via statistical procedures (i.e., determining objectively whether any numerical differences

revealed by the data were statistically significant); (f) generalizing the findings with the present samples to other groups of men and women apart from the ones involved in the study.

By contrast, a simple qualitative approach might ask, "Is there a difference in the nature of the intelligence of men and women?" The two groups might be equal in terms of amount of intelligence (quantitative approach), but might nonetheless display different *patterns* of intelligence, women for instance showing verbal, social, intuitively oriented ability, men mechanical, logical, mathematical pattern.[9] The researcher might conclude that there is no quantitative difference but a substantial qualitative one – no difference in the amount of intelligence but differences in the kind. A more full-blooded qualitative approach would go further in rejecting the "How much?" approach. The researcher might ask, "How do men and women themselves experience their own interactions with situations requiring what is commonly called 'intelligence'?" "What explanations do they use to explain what happens when they find themselves in such situations?" These questions define a more *phenomenological* approach (see Chapter 4).

Further examples of qualitative research questions are given below to help give a certain "feel" for this approach. The examples given here have no claim to representing the full range of possible topics that could be studied qualitatively. They are not arranged in any special order. Of interest here are not the actual contents of the questions but their qualitative style or form. It is important to remember that in looking at these questions researchers in different social sciences would emphasize concepts relevant to their own disciplines. A famous statement about the nature of sociology is that its aim is *to investigate sociological things in a sociological way*. Thus, the question "Why do affluent, successful people emigrate from rich, highly developed countries?" (example number 1 below) might be examined by a psychologist in terms of motivation, personality, cognitive processes and similar factors, not for instance demographic, sociological, economic, or anthropological variables. The importance of this focus on discipline-based ways of looking at issues will become more apparent in Chapters 7-9, where interpreting and reporting research studies will be emphasized. It must be admitted, however, that the increasing use of interdisciplinary approaches means that the boundaries of what is "psychological," "educational," 'sociological" or "anthropological may be becoming blurred.

Some further examples of qualitative research questions are as follows:

[9] These gender stereotypes should not be seen as scientific summaries of relevant research. They have been introduced here purely as an artificial example in order to make clear the difference between quantitative and qualitative approaches.

1. Why do affluent, successful people emigrate from rich, highly developed countries?
2. How do drivers experience their interactions with other participants in road traffic?
3. How do parents of emotionally disturbed children conceptualize their situation?
4. What does it feel like to be a gifted child?
5. What factors in the workplace encourage or inhibit creativity?
6. What aspects of their work are especially stressful for social workers?

***Qualitative answers*:** Questions such as these can be answered to some extent by formulating null hypotheses and testing them with appropriate analytic statistics. To continue with the example of why people emigrate, it might be expected intuitively that they would do this to avoid unpleasant life conditions in the homeland (e.g., unemployment, poverty, harsh living conditions, lack of political freedom, repression, and the like). Supported by review of the relevant literature this might lead to the working hypothesis that people who earned less or were unemployed, experienced the lowest levels of social and political freedom, or suffered the greatest privations would be more likely to emigrate. This expectation could be formulated as a null hypothesis (e.g.: "There is no relationship between earnings level and interest in emigration"). This could be tested, for example by calculating the average income of a random sample of emigrants from a particular country and comparing this with the average income of a group of non-emigrants from the same country (thus *controlling* for variability deriving from country of origin by taking all participants from the same country). If the mean incomes of the two groups were statistically significantly different (demonstrated, for example by a t-test), the null-hypothesis would be rejected, and it would be argued that income really is a factor in emigration.

In a study carried out in Germany with people who had applied for a visa to emigrate to Australia (Cropley & Lüthke, 1995) almost all respondents nominated as decisive unfavourable economic conditions, fear of unemployment, shortage of accommodation, fear of war, desire for a better future for their children and desire for better weather. However, a more intensive investigation with the same people using group interviews, structured individual interviews and in-depth interviews found that under these conditions (as against when they filled out a questionnaire) Germans interested in migrating to Australia gave little weight to external, objective factors, such as those just mentioned, apart from wanting to go somewhere where life conditions were marked by prosperity and freedom (i.e., none of them

wanted to migrate to the then Soviet Union). In in-depth interviews respondents revealed the "psychodynamic" meaning of emigration for them. Examples include: satisfying an urge felt since childhood to experience strange places; acting on a feeling of needing a challenge in a new environment; realizing a desire to escape from suffocating family ties. Many of them saw emigration as an aid to solving problems of intrapersonal development, focusing on processes such as separation, attachment, or individuation (e.g., Erikson, 1968).

None of this would have been discovered in a traditional quantitative study based on the opinion that has been dominant ever since Ravenstein (1885) formulated his laws of migration behaviour about 130 years ago – in a nutshell, Ravenstein's laws say that people are driven away by privations and attracted by advantages (external factors) – despite the fact that numerous null hypotheses would have been rejected. A quantitative study would have been etic (based on concepts imposed from the outside), macro-analytic and inductive (concerned with using specific people for the purpose of discovering general laws), and closed, and thus incapable of responding to the themes of separation, guilt, alienation and the like which *emerged* from the emic, micro-analytic and open study conducted by Cropley and Lüthke (1995).

A review of the contents of counselling for would-be migrants showed that it focused – as would logically be expected from the prevailing opinion just outlined – on providing them with information on unemployment rates in their target countries, average summer and winter temperatures, availability of affordable housing, and similar practical matters. Both interesting and useful, this information helped migrants formulate an apparently logical explanation for their interest in emigrating: As one man put it in an interview: "You've got to have something sensible to tell the neighbours about why you're emigrating!" However, such counselling did nothing to help migrants identify and cope with their uncertainty, guilt feelings, anxiety, or sense of loss once they were in the new country.[10]

Following the criterion of usefulness, Cropley and Lüthke (1995) worked out implications of their findings for practice, in their case psychological practice, and designed a one day workshop for in-service training of social workers involved in counselling both potential migrants in Germany before departure as well as actual migrants in the target country after arrival there. The researchers' recommendations included both guidelines for the content of the counselling, such as thematizing difficulties of attachment/detachment, or

[10] A good 20% of Cropley and Lüthke's respondents returned to Germany within two years of emigrating. The record short stay involved two brothers, who never left the airport in Sydney, but booked seats on the next flight back to Germany!

discussing the realisticness of the hope that migration would solve all personal problems, as well as for the organisation of the counselling sessions; for instance in the research interviews those participants who took part in group interviews where other would-be emigrants were also present reported that these interviews were very helpful, as they felt that for the first time they were among people who understood their situation, which meant that the fact that tough-minded reasons for wanting to emigrate were largely a façade (something of which they had not previously been aware) could be identified and openly discussed. This was both an emergent, "accidental" finding which had not been part of the original research plan at all, and is also an example of how qualitative research can sometimes benefit participants, on the side as it were.

In a methodologically similar study, Knapper and Cropley (1980) showed that in difficult traffic situations such as near accidents drivers interpreted the behaviour of other drivers on the basis of visible clues such as age, style and level of dress, age of the other person's vehicle, visible level of maintenance of the vehicle, or price group of the vehicle when it was new. Drivers then made inferences about invisible factors such as the intention of the other driver (e.g., "The other driver is a respectable old gentleman who probably tried hard to avoid causing me any trouble but was trapped by external circumstances" vs. "The other driver is a careless young idiot who couldn't care less about me"). Knapper and Cropley (1980) showed how their findings indicated that people "construct" traffic situations as miniature social interactions and regulate their own behaviour according to these subjective interpretations, rather than according to the objective facts of the situation. For instance, interpretations similar to the "respectable old gentleman" reaction produced less aggressive responses, as would be socially appropriate when dealing with such a person (respect for older people, protective attitude to the elderly), whereas the "young idiot" construction encouraged a desire to teach the other person how to do it properly or to punish him or her, as is more appropriate for children. Knapper and Cropley related this finding to social psychological processes such as attribution or selective perception. They also worked out practical implications of their findings for driver training and for measures aimed at encouraging more widespread use of seat belts.

In a "descriptive-phenomenological" study of how parents of autistic children understand their children's disability, Probst (1997) showed that they use four main categories to make sense of the situation: "categorization" (What is the nature of the disability?), "attribution" (Why did it occur? Who or what caused it?), "expectations about the progress of the problem" (What consequences will it have for the child? Is it treatable?),

and “expectations of social support” (Who will help us and how will they do it?). These ways of looking at the situation were related by the researcher to existing theory in clinical and health psychology on “health schemata,” and to more general basic psychological theory on causal attribution, locus of control and cohesion. At a practical level, the findings were discussed in relation to the structure and function of parent support groups and to psychological processes in such groups, and based on his findings Probst designed a workshop for parents which was very positively received by participants.

The kind of insights into the understandings and needs of families with an autistic child yielded by this qualitative analysis can be contrasted with those delivered by a later quantitative study by the same author in which he reported that there was an effect strength of .75 when children who received therapy (i.e., experimental group) were contrasted with children who received no therapy (i.e., control group). The findings of the latter (quantitative) study demonstrating the effects of therapy are by no means uninteresting, but such a finding is quite different in principle from those of the earlier qualitative study.

Plate (1997) investigated “the conditions that make it possible for people to make effective use of their own creativity in their work,” by asking employees what factors they experienced as encouraging their own creativity and what factors discouraged it. He showed that his respondents identified both “external” and also “internal” factors that played a role. External factors included level of demand for creativity within the job, degree of freedom in the work setting (e.g., independence, tolerance of errors) and presence or absence of time pressure. Factors within the person included “image” (the workers’ perception of how others saw them), “identification with an idea,” “motivation” or “demotivation,” “willingness to take risks,” or “willingness to risk conflict with other people.” These two sets of factors worked together to encourage or discourage creativity. Both sets led fairly directly to suggestions for a creativity facilitating management style.

Cropley (2002) conducted group discussions with a total of 70 German social workers working with asylum applicants, asking them about their motivation for work in this particular area and about the aspects of their work that caused them particular problems. Participants believed themselves to be particularly qualified because of their special skills, and consciously or unconsciously used work with refugees as a chance to relive and resolve problems from their own past lives. Among participants’ cares and concerns about their work were existential issues such as finding a sense of purpose in it or finding ways of escaping from the isolation resulting from their total absorption in the day-to-day struggle. Other concerns were more professional (e.g., obtaining new perspectives, both theoretical and

practical, seeing how to work effectively and objectively). In interpreting his data the author showed that in many ways the social workers in the study resembled people interested in emigrating, and connected this finding with the more general theory of personality and migration already mentioned above (e.g., separation, attachment, individuation). He also drew attention to the implications of the study for in-service training in the area.

The Relationship of Quantitative and Qualitative Methods

As was pointed out in Chapter 2 (see Table 2.1), quantitative approaches are strongly linked with experimental and quasi-experimental designs. It is thus tempting to regard quantitative approaches and experimental designs as synonymous, although this is not necessarily the case. In a similar way, quantitative methods almost always involve numerical data, often collected using electronic or mechanical instruments, psychological tests, questionnaires, or some combination. They are also almost always associated with formal hypotheses and with the testing of such hypotheses, especially with the help of analytic statistics. By contrast, qualitative methods are strongly linked with collection of verbal data by means of, for instance, interviews. They are frequently conducted without hypotheses, at least in the initial stages, and the dominant approaches to data analysis are variants of content analysis (see Chapter 7). There is very frequently no statistical analysis, and the findings may be more in the form of hypotheses than of conclusions: Qualitative designs may have more to do with finding hypotheses than with testing them. Thus, there is *a correlation between research method and the kind of information that is delivered*. This fact is of particular interest in research involving "mixed" models (see Tashakkori & Teddlie, 2010), which seek to combine the two kinds of information delivered by the different approaches in order to gain a clearer picture of the phenomenon being investigated (for a more detailed discussion see Chapter 6).

Complementary relationship of the two approaches: The fact that qualitative and quantitative approaches do not compete is made clearer by a consideration of the fact that scientific inquiry typically starts with observation of a case or cases and then proceeds to the subsequent formulation of an explanation via inductive thinking, typical steps in qualitative research. The theory is eventually formalized and its applicability refined via testing of hypotheses and deductive thinking, processes that are typical of quantitative studies. Thus the two approaches *supplement* each other.

A simple example is the anecdote about Isaac Newton and the discovery of the laws of gravity (this is useful to illustrate the point being made here, even if it is not historically accurate). Newton is said to have been sitting under an apple tree in his garden one day when

a ripe apple fell from the tree and struck him on the head. This event set Newton thinking about why objects fall to the ground. In other words, he started from an observation of his own experiences in everyday life. He constructed an explanation of his observations and this led to the emergence of what was then the novel theoretical concept of gravitational force. This sequence of events can be regarded as an extremely simple case study involving observation of real life, description, explanation, and generalization. The apple was observed to fall to the ground. Other objects do this too when they are not supported. Therefore, the earth must somehow pull them, i.e., there must be a force acting on everything.

The process just described involves using specific observations to formulate a general rule: i.e., it is *inductive*. Naturally, even prior to Newton people knew that objects fall to the ground when they are not supported. What was missing, however, was a mathematical-physical explanation of why this occurred (i.e., a theoretical explanation of observed facts formulated in terms of the system of concepts employed in physics). An explanation based on a different system of concepts already existed, and Newton's had to compete with this. According to the classical Aristotelian explanation, the universe was constructed according to a systematic order of things. An object would fall to the ground when its place in this order required it to do so. This explanation fosters a sense of living in a sensible universe, but does not permit prediction, only after-the-fact explanation: The apple fell because that was the right thing for it to do. What Newton did was to develop by induction a set of rules describing why objects behave as they do. This model yielded hypotheses about how new objects that were not part of the original observations (such as the moon) could be expected to behave. These hypotheses could be tested and, if necessary, the original theory refined (i.e., deductive thinking). Newton's theoretical model served as the basis for subsequent quantitative research, but was itself the product of an essentially qualitative approach.

Quantitative research, by contrast, commences with an existing body of knowledge that already includes generalizations and explanations, i.e., theories about relationships among specific events. A simple example would be a study based on existing findings about facilitation of the growth of intelligence by contact with a verbally enriched environment. A typical piece of quantitative research would find a way of measuring intelligence (IQ scores) and a measure of degree of contact with a rich verbal environment such as amount of formal schooling. In an *ex-post-facto* design two groups could be formed, one that had already experienced a high level of formal schooling (experimental group), a second with little such prior schooling (control group). If there were a statistically significant difference between the groups' mean IQs it would be concluded that the research hypothesis had been confirmed.

The logic of this approach starts by stating a general rule (the hypothesis about a connection between verbal environment and intelligence) and using it to make a prediction about the specific samples: i.e., it is *deductive* in nature.

However, as was pointed out above, in empirical scientific thinking the very first general statement is often developed via observation of concrete experience – historically speaking, induction usually precedes deduction. What this means for the theory of research methodology is that qualitative and quantitative research are not rivals but complementary phases in the process of enlargement of knowledge. An intuitive model of their relationship would see a qualitative phase of induction as the first step in enlarging knowledge, followed by a quantitative phase of deduction. These two phases can be regarded as linked by an intermediate phase in which the knowledge gained via observation and description in the inductive, pre-experimental, pre-statistical phase becomes known and stimulates hypothesis formulation, thus laying the foundation for quantitative research. This relationship is shown in Table 3.1.

Table 3.1: The phases of scientific enlargement of knowledge

Phase	**Characteristic**			
	Process	**Purpose**	**Action**	**Result**
Qualitative Phase	Induction	Description and explanation	Observation of cases	-Description of general properties of cases -Explanation
Transfer Phase	Application	Switch from qualitative to quantitative mode	Working out implications of previous phase for the next	Formulation of specific hypotheses
Quantitative Phase	Deduction	Testing of hypotheses	Application of inferential statistics	-Confirmation -Disconfirmation -Revision of hypotheses

The table can be read by going down the columns “Purpose” “Action,” and “Result.” This shows how, to take the example of “Results,” expansion of knowledge moves from description and development of possible explanations (qualitative phase) to the formulation of specific hypotheses (intermediate phase) and finally to the statistical testing and subsequent rejection, acceptance or modification of these hypotheses (quantitative phase).

The reason why the two approaches may seem to be alternatives or even rivals is that quantitative designs are often unaware of the qualitative phase that has gone before. This is

because, from the point of view of quantitative researchers, the general theory developed in the qualitative phase can be taken for granted because it simply exists in the literature, as though it had always been known. This is often because the qualitative phase took place a long time ago or because there has been a mass of quantitative research since the original burst of inductive creativity. No physicist working today on a problem such as gravity waves would start by reviewing the case of Newton and the apple, although without his original insights the modern research could not exist. It is thus quite possible for researchers in the qualitative phase to be unaware of earlier phases. This is probably particularly true of graduate students in social science, who typically enter the research cycle in the intermediate phase at the earliest: They begin to work on a research problem when thinking about it has already progressed to a point where the overall outline of ideas is already known, i.e., despite occasional exceptions they are foot soldiers rather than generals. This does not mean that they are condemned to carry out unoriginal routine work: As Miller (2000) and Sternberg, Kaufman and Pretz (2002) pointed out, extending the already known is the commonest form of creativity in scientific settings (for a fuller discussion, see Chapter 6, pp. 154-155).

One way to think about systematic qualitative research is thus to regard it as a formalisation of the inductive phase, even if researchers are unaware of this. The danger of this, however, is that it creates the impression that qualitative methods exist only as a preliminary phase for yielding ideas that can be investigated "properly" in quantitative investigations. It is true that qualitative approaches are indeed especially useful for investigating phenomena about which little is known, such as patients' image of their therapist or the psychological trauma experienced by political refugees. However, it is important to bear in mind that they also offer a scientifically legitimate way of conducting research on familiar topics. In addition to their usefulness in investigating little known phenomena they are "a valid research genre" in their own right, as Elliott (1999, p. 251) put it.

Core differences between the two: Nonetheless, there are key differences between the two approaches. These differences were brought out clearly by Kvale (1995) in terms of the concept of validity, as this concept was introduced in Chapter 2. He identified seven *phases* of the qualitative research process, and argued that each phase has its own special criterion of validity (see Table 3.2). These criteria differ markedly from those applying to quantitative methodology.

Table 3.2: Criteria of validity in qualitative studies

Phase	**Criterion**
Thematising	Sound reasoning in working out the research question
Designing	Clear explanation of the thinking behind the study
Collecting data	Quality of the questioning of participants and checking of their answers
Transcribing	Accuracy of the recording of participants' narratives
Interpreting	Logic of the researcher's interpretation of participants' narratives
Reporting	Accuracy of the researcher's account of what happened
Verifying	Credibility of conclusions. Usefulness of practical suggestions for application in real life

In the first phase of *thematizing*, validity rests upon the soundness of the reasoning that led to the study's research question (referred to above as "identifying the 'object of study'"). In the second phase of *designing*, validity involves the credibility of the methods used to pursue the object of study. The validity of the third phase, the process of *data collection* (in qualitative studies this often involves interviews), derives from the quality of the questioning of participants and the carefulness with which the information they offer is checked by the interviewer – this is a matter of the "trustworthiness" of both interviewer and respondent. The validity of the phase of *transcribing* focuses on the question of whether the transformation of the respondents' verbalizations into a written record truly represents what they said. The validity of the phase of *interpreting* derives from the logic of the researcher's interpretations, while the phase of *reporting* is valid if the research report gives an accurate account of the study and its findings and derives practical implications. Finally, the validity of *verifying* centres on whether specialist readers find that the study reflects their experience in a credible way, whether the findings are surprising, and whether they are useful for specific communities of practitioners.

Why do Qualitative Research?

The dream: Many research students in psychology and education nowadays express strong interest in conducting qualitative studies and, indeed, "qualitative research methods" has become something of a catch cry. However, the feeling cannot be avoided that students' motivation is sometimes a flight *from* quantitative methods rather than an attraction *to*

qualitative ones. From a purely emotional point of view this is understandable. Quantitative procedures emphasize numerical data, complex mathematical procedures involving probability theory, and extensive calculations by a machine (i.e., a computer) that uses procedures that are hard to comprehend. Qualitative methods are attractive because they seem to permit an escape from strict experimental designs, close attention to sampling, statistics, and the like, as well as a chance to avoid extensive calculations, i.e., they seem to be in a sense easier and to involve "labour saving." On a more idealistic level, students can easily feel that the whole process of data collection, coding, and analysis is impersonal and in a sense out of their control. It seems to turn the people being studied into mere objects, and the researchers into scientific instruments. Qualitative methods thus offer a humanized alternative consistent with psychologists' self-image as sensitive, intuitive, warm human beings rather than cold, logical, objective scientists. Qualitative methods are thus more "romantic."

Indeed, this view of qualitative methods is not without foundation. There are two main reasons for this:

1. In the qualitative approach the *relationship between researcher and person being studied is different* from the quantitative approach. Both parties in qualitative research engage together in a joint process of production of knowledge. Qualitative research has more the nature of a co-operation between equals, whereas quantitative research involves an investigator examining an object (usually called the 'subject") under the microscope. In this sense qualitative methods are more "human." They involve trusting relationships between people, willing cooperation, and the like.
2. In the qualitative approach *technical requirements of design are usually less stringent* (e.g., sampling, control of confounding variables, reliability and validity of instruments, technical quality of data such as parametric vs. nonparametric, and so on). These can be ignored or at least looked at in a "flexible" manner.

Harsh reality: However, the "romantic" and "labour-saving" views of qualitative methods do not take account of several issues that need to be raised here. Briefly summarised, it can be said that qualitative methods too require hard work, as well as courage, trust in oneself and determination. They also require a high level of knowledge. There are a number of reasons for this.

1. Qualitative research methods derive from a complex and subtle body of theory on the nature of knowledge and ways of obtaining access to other people's knowledge that grapples with difficult issues in the philosophy of science and knowledge (e.g., postmodernism).
2. Qualitative methods often require lengthy contact with respondents who must be convinced to sacrifice their time. Outside the researcher's circle of family and friends, this may not be easy.
3. It may be necessary to spend a good deal of time in fairly intimate contact with people who are not particularly pleasant company. Participants do not always conform to the psychology student's ideal of YARVIS (young, attractive, rich, verbal, intelligent, and social).
4. The respondents may be asked to reveal themselves freely to the researcher. This may include information that is painful to them. Such situations require special personal properties in the researcher – see below for a more detailed discussion of these properties.
5. Qualitative research raises important ethical questions. For instance, discussing suicidal ideation in an interview with a severely depressed respondent might trigger suicidal behaviour if the respondent were simply abandoned at the end of the interview. Ethical issues are discussed in more detail below and in Chapter 4 (pp. 81ff).
6. Qualitative methods involve data collection and transcription procedures that require meticulous record keeping, are often extremely time consuming, and may even become tedious. Much the same may be said of data analysis procedures. All of these step in the research process are of necessity usually carried out by researchers themselves, not for instance by typists or computer programs.
7. Qualitative approaches raise special problems for reporting both procedures and findings. In writing a thesis or dissertation

students may have to forsake tried and trusted structures and devise their own.

8. There are thorny issues involving the reliability and validity of knowledge obtained through qualitative approaches. Usually no hypotheses are tested and nothing is "proved" in the traditional, quantitative sense. This raises the problem of how to draw conclusions that can be generalized to situations other than the one in which the data were collected – how to make findings *plausible* and *useful* in both scientific and also practical terms.
9. The outcomes of qualitative research are often unclear until a very large amount of effort has been expended. Researchers may spend long periods in a state of uncertainty about what, if anything, is going to come out of the many hours of work.

These issues may be summarised by saying that qualitative research methods are far from cut and dried and far from offering the "easy" alternative some research students hope for. Indeed, as Denzin and Lincoln (2017, p. 11) put it, they are often "messy" and "uncertain." However, provided that this is accepted from the start, with sufficient effort all the problems just mentioned can be surmounted.

***Who is qualified to do qualitative research*?** Qualitative methods are not merely a matter of finding someone to talk to and writing up the results. It is necessary to recruit respondents and gain their help, as well as remaining aware of the possible consequences of participation for them. It is also necessary to be able to analyse qualitative data (see Chapter 7) and to "make sense" of these data in psychological terms (Chapter 8). Consequently, there are certain personal qualifications for conducting qualitative research. These are found in specific areas.

- First comes *special knowledge of the field*, especially of the basic concepts psychologists have developed to understand it. In quantitative approaches the theoretical (conceptual) framework and hypotheses (i.e., the research questions) have usually been worked out and specified beforehand, largely by other people. In qualitative studies they must be worked out by researchers themselves.
- *Qualitative studies require inductive thinking* to generate new structures. These must be derived from clues and hints provided by the respondents, usually in

everyday language, not social science terminology. This requires sharp observation, alertness to the "meaning" of clues, the ability to build concepts, and creative but disciplined fantasy. In quantitative research, by contrast, new material is incorporated into an existing framework.

- The *researcher's own personality* is also important. Necessary properties include empathy and openness, as well as the ability to adapt oneself and to inspire trust in others. In addition, qualitative researchers need fantasy and creativity, as well as courage, perseverance, ability to tolerate uncertainty, and self-belief.
- *Good judgement and responsibility in dealing with other people* are necessary. This involves skilful selection of respondents, and a grasp of how intensely or how far to pursue material, as well as of when to stop, especially when probing procedures such as in-depth interviews are used.
- *An ethical attitude is important*. Great care must be taken to obtain informed Consent and avoid negative consequences of participation for respondents, for instance in dealing with intimate or painful material. The example of research with respondents who display suicidal tendencies has already been given.

Of course, factors such as knowledge of the field, fantasy and creativity, sense of responsibility, and an ethical attitude are also important for researchers doing quantitative research. However, they assume special importance in qualitative studies.

Responsibility and ethicality may be particularly important in clinical research. To take an example from the past, in the early days of encounter groups it was not uncommon for beginners to encourage respondents to participate in group discussions of topics of extraordinary personal significance for particular members of the group, such as coping with the loss of a loved one, dealing with disordered thought processes, or fantasies of rape and murder, and then at the conclusion of the group simply send these people home to deal as well as they could with the emergence of such material into consciousness. Of course, clinical research is not alone in the danger of confronting respondents with material from their psyches that they subsequently have difficulty in handling. However, this is a particular danger in clinical studies since, by virtue of being clinical, they often concentrate on material that is causing difficulties for respondents. As a result, the personal qualifications for qualitative research may well be of particular importance for clinicians, although this should

not be interpreted as meaning that the qualifications are not important in other areas or that clinicians are especially unethical.

Chapter 4: Designing a qualitative study

In qualitative studies, the initial steps in designing a research project – defining just what will be investigated, selecting an appropriate data-collection method and identifying appropriate participants – are different from quantitative investigations. Some authors even object to general discussions of how to carry out qualitative studies, on the grounds that these imply the existence of set methods that can be applied objectively and in a way that does not vary from researcher to researcher. Such objections seem to imply that *reliable* qualitative research is impossible. However, many researchers adopt a more moderate position, accepting for instance that there are "local" realities that transcend individual people and can be described and analysed in a systematic way. The present chapter outlines the "phases" of research (attending, telling, transcribing, analysing, reading, and validating) that need to be carried out in an appropriate way in order to collect reliable and valid qualitative data. Some of these raise ethical issues that researchers need to address (e.g., preservation of confidentiality, informed consent, avoidance of risk).

Chapter Glossary

cognitive dissonance:	A situation in which two mutually contradictory "facts" both seem to be true at the same time
data shift:	a change in what is perceived as a fact which results from a change in the context in which statements about the facts are being made; see also "social desirability" below
methodological constraints:	limitations on the researcher's freedom of action made necessary by the need to avoid the effects of factors like social desirability (see item below)
meaning shift:	the subjective meaning of objective events changes as people process, store and re-tell the events
narrative competence:	the ability to provide useful information on a particular topic, often an aspect/aspects related to the person's own life
placebo effect:	a tendency for people to experience states and feelings simply because they have been led to believe that they will do so
quantum of effort:	an investment of time and effort into investigating a topic which is great enough to provide sufficient useful information about the topic
social desirability:	A psychological factor putting people under pressure to give answers which will please other people, regardless of what the person giving the answer actually thinks

The Phases of Qualitative Studies

According to Riessman (1993, p. 10), a qualitative research study has five "levels," although since they describe steps in a process they are referred to here as "phases." These are as follows:

- *attending*: the people who later become participants build up an internal picture of the world;
- *telling*: these people tell the researcher about this internal picture. This often occurs in the form of an interview, although other forms of telling are possible such as letters, texts of speeches, an autobiography, etc. These narratives are recorded in some form, usually by the researcher;
- *transcribing*: the narratives are transformed into a written text by the researcher;
- *analysing*: the transcriptions are analysed by the researcher, via for instance content analysis;
- *reading*: the results of the steps just outlined are communicated to appropriate readers, for instance in the form of a thesis or dissertation, or a research report.

A sixth phase can be added to these five

- *validating*: knowledgeable readers examine the contents of the report and decide whether it is stable, credible, useful and so on (i.e., whether it is reliable and valid).

As with any system of phases, these are arranged in order, starting with "attending" and proceeding through the intermediate phases until "reading" and "validation" are reached. The first three phases form a cluster focused on the respondents as they (a) experience life, (b) develop a subjective understanding of their experiences, and (c) selectively pass on this understanding to a researcher. Together with aspects of "transcribing," the phases of "analysis" and "reading" form a second cluster focused on the researcher who (d) records what the participants say, (e) develops an understanding of the more general implications of these statements, and (f) communicates these understandings to other people in the form of a research report. A third cluster is formed by those aspects of "reading" and "validation" that involve the contribution to the whole process of the "audience" (people who read the research report and possibly accept and adopt its findings).

1. **Attending**: *People organize and order their experiences and store them in their minds*. This is not simply a photographic record of everything, because attending is selective and interpretative (i.e., the people *construct* their records of their own lives). Thus, "meaning" *shifts* away from an objective, camera-like record to a subjective one;

2. **Telling**: The phase of telling corresponds to data collection. However, telling looks at data collection from the point of view of what the participant does, not what the researcher does: the participant "tells," the researcher "collects." *When asked to narrate their experience people select aspects that seem relevant or have special importance to them*. They relate these to the researcher. They do not simply regurgitate everything that has ever happened to them in connection with whatever the researcher is investigating. They usually present the aspects they select in a relatively organized and structured manner. They also shape what they tell according to the particular audience. As a result, meaning shifts a second time;
3. **Transcribing**: *The narrative is "fixed" by the researcher* by being written down or recorded in some other way such as tape recorded or videoed. Riessman (1993) made the point that videotaping preserves the richest record, although this raises substantial practical problems such as its demands on the researcher's time. However, regardless of how the narrative is initially fixed, ultimately, a written record is almost always created. This record does not contain every piece of information provided by the respondent, but involves selection and organization on the part of the researcher (referred to earlier as "coding") – once again, meaning shifts;
4. **Analysing**: *The researcher makes sense out of the narrative(s)* by examining the content of one or a number of transcriptions. This phase is influenced by the researcher's expectations, interests, attitudes, political orientation, and the like, so that a further shift takes place;
5. **Communicating** (Reporting and reading): *The researcher writes a report presenting the results of the analysis and makes it available to other people* (the first step in the phase of communication), who read it (second step in communication). The contents of the report reflect the orientation of the researcher as just mentioned in 3 and 4. Once again there is a shift in meaning.
6. **Validating**: *Informed readers assess the report's "usefulness"* in the sense of Chapter 2 (i.e., with regard to credibility and so on). As in the earlier phases, the message the report contains for particular readers is modified by their expectations, interests, attitudes, etc. A final 'shift" occurs, this time caused by the reader of the report.

Although Coghlan (2011) was writing about the extreme case of action research in organizations, his discussion can be applied to the more general task of defining central characteristics of qualitative research. He identified (p. 54) "critical themes" that help to do this:

(a) research involves an *emergent*[11] inquiry process;

(b) data *shift* as a consequence of intervention;

(c) it is not possible to predict or control what takes place in the course of research or where it leads.

Coughlan's three themes emphasize that researcher and respondent are not subject and object, but are collaborators in a process of discovery, in which the object of study emerges in the course of the investigation, data shift (as just discussed above), and where the research will ultimately lead is not necessarily predetermined or even under the strict control of the participants (as in the airfreight case study). As broad principles these themes apply to all qualitative research, although to differing degrees according to the particular approach involved (see Chapter 5 for an overview of qualitative data collection methods).

The relationship between the phases and actions of participants and researchers are summarised in Table 4.1. This phase model of the process that leads to a rigorous qualitative study can be compared with Cropley's (2001) expanded phase model of the emergence of a *creative* product. This model of creativity also involves phases in which an internal picture of the external world is built up, this material is processed, the results of the processing are communicated to other people, and these people judge the results. Cropley also emphasized that without validation by knowledgeable observers neither a "creative" idea nor a qualitative research report satisfies the criterion of "usefulness." A comparison with the creative process also emphasizes a further important criterion of the external validity of qualitative findings: It is important that they generate "surprise" (see Chapter 8 for a further discussion of this topic), i.e. that they lead to something unexpected. If they do not, the accusation of banality or triviality immediately comes to the fore (see p. 21).

Table 4.1: The phases of qualitative research

Focus on	Phase	Content
Respondents	Attending	Respondents organize and order their own experience and store a record in their minds
	Telling	Respondents select relevant aspects of their experience to narrate to the interviewer
	Transcribing (first step)	Respondents narrate their experiences to the researcher
Researcher	Transcribing (second step)	The researcher writes down or otherwise records each respondent's narrative
	Analysing	The researcher "makes sense" out of each narrative and discerns the general picture
	Communication (first step)	The researcher writes a report and makes it available to knowledgeable readers
Readers	Communication (second step)	The report is read by knowledgeable readers
	Validation	Readers form an impression of the report's contents and assess its usefulness

Factors Affecting Reliability and Validity in the Phases

Attending: Psychologists have paid considerable attention to the *attending* phase, for instance in research on perception and memory, as well as on cognitive and non-cognitive aspects of information processing (receiving, selecting, structuring, storing and recovering information). Research findings show, for instance, how processes such as selective attending or formation of harmonious "gestalt**s"** lead to organizing and smoothing out of what is perceived in order to form "rounded" and closed images in the memory. For practical purposes, however, little if any influence can be exerted on this phase by the researcher, since – because qualitative designs are usually *ex-post-facto* – it normally occurs prior to the commencement of the investigation. Nonetheless, it is important to remember that this phase exists and to remain aware of its implications in the phases of analysing and communicating. By contrast, the threats to reliability and validity that arise in the remaining phases of *telling*, *transcribing*, *analysing* and *communicating* can be reduced by appropriate planning and execution of research projects.

***Telling*:** Holstein and Gubrium (2015) explained the consequences of the social construction approach for research design by contrasting it with the more traditional idea of research as a technique for "prospecting for true facts and feelings residing within (p. 2)." In the latter, the data function as "a pipeline for transmitting [objective] knowledge (p. 3)" – the

data are, as it were, a mirror of an objective reality. Put briefly, the quantitative approach rests on the view that there is a reality "in there" that researchers must dig out or "mine" via appropriate techniques. By contrast, emphasis on social construction holds that "all knowledge is created from the action taken to obtain it (Holstein and Gubrium, 2015, p. 3)." In other words, researchers do not uncover objective knowledge that exists independently of the research process, but construct or create knowledge by the act of research. This means that research *creates* knowledge rather than discovering it. Although it has received increased attention recently, this point of view has been present in modern social science thinking for a considerable time, and was already the subject of a major review nearly 20 years ago (Gergen, 1985). More recent psychologically-oriented discussions are to be found in Patton (1990) and Kvale (1996). The conceptualization of research as a process of creation of knowledge through the joint efforts of researcher and participant(s) is stated with particular emphasis by Coghlan (2011).

Social construction of information: Shifts in meaning result from the fact that information is recalled, narrated, recorded and interpreted in a social framework. A simple example is the way in which, let us say, "rich people" is differently understood (constructed) from different social viewpoints. To people who move in one social circle rich people are the carriers of high culture who are engaged in the noble enterprise of preserving the best traditions of society. To people from a different milieu they are parasites who prey on the majority of society. Finally, to a Marxist they are the owners of the means of production, but are doomed to be swept away by the inevitable forces of history. Feminists argue that much of what is regarded as knowledge about women has been socially constructed by the imposition on women of stereotypes and preconceptions stemming from male-dominated conceptions of women's experience. Finally, social construction is even influenced by a group of people who are not directly involved in the research at all – the readers of the report. They too bring with them opinions, expectations, attitudes and the like that influence their understanding of its contents. Thus, no fewer than three separate groups are involved in the social construction of a research project: the participants, the researcher and the readers of the report.

The role of the researcher in constructing information: It is important to distinguish between social construction of information that occurs during the actual collection of data (i.e., in the phases of telling, transcribing, analysing and communicating – see Table 4.1) and that which already existed prior to the commencement of the study in question (i.e., in the phase of attending). *Both respondents and researchers already come to the research setting*

as bearers of socially constructed information, because in the past they have "attended" to aspects of their world that social factors tell them are important, significant, interesting, or even correct. It is easy to see that participants communicate socially constructed views of reality to the researcher, but less obvious that researchers' socially constructed reality influences the very questions that they ask, as well as what they regard as worth transcribing and how they interpret the transcribed material. *Social construction thus influences not only what the respondents say, but also the questions researchers ask and the answers they attend to.* Once the data have been collected, the respondents' work is over, but social construction in the form of researchers' pre-existing ideas and expectations continues to affect the development of the research findings and the emphases, form and style of the final report. These aspects of social construction are of great importance, and influence the process of data collection and analysis, even where they are not actually part of the process itself.

Returning to the actual process of collecting qualitative data, it must be remembered that information is obtained by means of an *interaction* between researcher and respondent. Naturally, what emerges during, for instance, an interview is heavily dependent upon the respondent's views. However, it is also largely *shaped or formed by the researcher* (Briggs, 1986). In the first and more obvious instance this is done by directing the respondents' attention to particular contents that interest the researcher – possibly more than they do the respondent. It is also affected by factors such as the researcher's level of language or the level of abstraction of the discussion. However, as Cicourel (1974) pointed out, social construction of information goes further: Researchers are likely to impose on the respondent ways of conceptualizing experience that are more consistent with the interviewers' construction of these experiences than the respondents'. For instance, if a researcher studying motivation for adults to stay home and care for elderly parents conceptualized this as women's work that is atypical or even odd for men, this construction of the phenomenon being studied would influence the way the topic was presented to respondents for discussion, as well as the concepts and categories they would be encouraged to use in describing and evaluating their own behaviour as carers. Such socially-derived preconceptions may well also influence the researcher's selective recording of data, as well as the interpretations placed on data.

The mechanisms of social construction: In addition to coming to the interview situation as bearers of socially constructed information, both researchers and respondents interact and *produce socially constructed information in the interview itself*. The mechanisms through which this occurs are already familiar to psychologists and educators. A concrete mechanism is the phenomenon of "shaping" of behaviour through what is known as the

"Greenspoon effect" (Verplanck, 1956). If interviewers say "Yes," or "Good," or display simple, possibly unconscious actions such as nodding when particular contents are emphasized or specific opinions expressed, or even merely look more alert and interested, this can lead respondents to concentrate on statements that elicit such obvious signs of approval. This is a subtle example of the effects of body language in the collection of qualitative data. The problem is particularly pronounced in the case of respondents with a strong external locus of control.

Focusing more on psychological processes within respondents, phenomena such as "Yea-saying" (Couch & Keniston, 1960), avoidance of "cognitive dissonance" (Festinger, 1957), conforming to 'social desirability" (Crowne & Marlow, 1964), "model learning" (Bandura & Walters, 1963) and simple conformity (Asch, 1955) play a role in social construction of information during an interaction between researcher and respondent. The general thrust of findings on these phenomena is that there is a tendency for people to agree with views expressed by others whom they perceive as being powerful or as having high social status (yea-saying), or even to adopt these people's views and copy their behaviour (imitation). Respondents also tend to give answers, state opinions and express attitudes that seem to them to make their own behaviour and points of view appear rational and logical to both themselves and other people (avoidance of cognitive dissonance). In addition, they try to give answers that will please the interviewer and that conform to dominant social norms (social desirability or what is nowadays often called "political correctness").

The effects of such processes can be very strong. In a crass example, researchers in an early study of the attitudes of members of the public to the wearing of seat belts – at a time when their use was still controversial – found that about 5% of men who claimed that they *never* wore them had already been observed with their seat belts buckled up prior to being questioned, or were seen wearing them afterwards. Apparently, the people in question did not want to admit to using seat belts because they feared that the interviewer would regard this as unmanly, or not sufficiently "macho," as we would say nowadays.

Factors of the kind just outlined also play a role at a more general level. An example is to be seen in the study of Germans applying for a visa to emigrate to Australia mentioned earlier. Nearly all of the respondents initially gave similar "reasons" for wanting to leave Germany, including unemployment, difficulty of obtaining accommodation and high interest rates. However, closer inquiries showed that virtually none of the respondents was unemployed, homeless, or in debt to a bank. On the contrary they nearly all had good jobs, a pleasant apartment and few financial problems. The reasons they gave in initial interviews

closely matched lists that had appeared in print and electronic media reports on migration. In the early interviews respondents simply echoed what they had read or heard about reasons for wanting to leave Germany, apparently on the grounds that such reasons must be sensible, rational and socially acceptable, since they had been in the newspaper or on TV, i.e. their "reasons" were socially constructed. By contrast, the in-depth interviews gained access to much more profound material, and were thus able to break through the façade of social construction.

The two examples just given illustrate in a simple and concrete way the social construction of responses in questionnaire studies. These seem to be particularly susceptible to this phenomenon in the sense that they have difficulty in getting behind the façade. However, the research process itself is part of the process of social construction. Although this is undoubtedly also true of quantitative methods, it is particularly obvious in the case of qualitative approaches, where the research process usually involves a more or less intensive personal interaction between researcher and respondent. What emerges from this interaction is socially constructed information.

Dealing with social construction: One response to this phenomenon is to regard it as a source of contamination of the information elicited and to try to eliminate its effects via good technical practice such as sophisticated questionnaire construction or skilful interview techniques. Holstein and Gubrium (2015, p. 4) referred to these as "methodological constraints." Examples would be avoiding questionnaire items whose meaning is ambivalent, conducting interviews in language that is meaningful to the respondent in terms of level, use of vernacular expressions, etc, or avoiding leading or tendentious questions that put words into the respondent's mouth. Without denying the importance of best practice in data collection, however, it should be borne in mind that emphasizing these as a technical solution to the perceived problem of social construction still accepts at least to some degree the information-mining point of view, that there is an objective reality which can be obtained in a more or less "pure" form if the extraction procedures are refined enough, i.e., if social construction can be minimized.

The thoroughgoing social construction position, by contrast (e.g., Alasuutari, 1995), accepts that social construction of qualitative data is unavoidable. It does not try to avoid it, but seeks to take account of it in data collection, analysis and interpretation. To take an example: A master's candidate conducted a content analysis of 12 interviews with people who had experienced the loss of a loved one, in order to cast light on the process of grieving and reconciliation. One examiner pointed out (correctly) that the analyses were heavily

dependent on the particular person who made them, and suggested asking a judge with expert knowledge of the area of loss and grieving to analyse some of the interviews. The examiner's line of argument was that if the student's analyses agreed with those of the expert, it could then be assumed that they were "correct." However, from the point of view of social construction of information this argument is incorrect. It assumes that there is a single, objectively "correct" meaning of the information yielded by the interview and that all sufficiently skilful researchers would come to the same conclusions about the contents of the interview. In other words, the examiner was adopting an essentially positivist position. A theorist like Alasuutari, by contrast, would point out that agreement between analyses would be unlikely, since the contents of the interview would be a unique product of a particular interaction between an individual researcher and a particular respondent, and the interpretation of these contents would be specific to this interaction.

Key Aspects of Qualitative Research

Previous sections have shown that the qualitative approach is based on special ideas about the nature of data and the effects of collecting data on the data themselves. These have great significance for the way in which qualitative studies are conducted. In designing such studies the researcher must decide:

- just what is to be investigated
- whose constructions are to be examined
- what method to employ for gathering data
- how to record information
- how to transform these records into a narrative that can subsequently be analysed
- how to analyse the data
- how to report the results to interested people

These steps correspond to the steps of "telling," "transcribing," "analysing" and "communicating" in the list cited at the beginning of the chapter. Logically they follow each other in order, although – unlike quantitative designs – there is a tendency in qualitative research for them to mix with each other, to overlap or to alternate: For instance, the phenomenon being investigated may be changed after some data have been collected, or additional participants may be recruited after initial results have been obtained. Thus, because of the openness of qualitative research earlier decisions on points in the list of necessary decisions just outlined may be changed in the course of then investigation

Levels of qualitative research: Qualitative studies can be conducted at three *levels*. These are listed below in a hierarchical order – it is possible to conduct research at the first

level without taking any account of the issues involved in levels 2 and 3, while research at level 2 does not require familiarity with the issues at level 3.

1. *Quasi-qualitative studies* emphasize "What kind?" as against "How much?" but otherwise retain the properties of a quantitative study more or less intact (sampling, measurement, statistical tests, etc). They treat the phenomenon being investigated as a more or less real thing that respondents possess and that causes their behaviour. However, they focus more on the style or kind of way in which the phenomenon is expressed rather than on the amount or level. An example would be a study dividing respondents into "Type A" or "Type B" personalities (probably on the basis of a psychological test) and showing that Type A people react differently to certain stimuli from Type Bs. For instance, a fictitious study might show that As are likely to suffer psychosomatic illnesses, whereas Bs more frequently suffer mood disturbances.[1] Partially qualitative studies are usually based on one or more hypotheses that are tested in the usual way with appropriate statistics such as Chi-square, i.e., they are deductive.
2. *Phenomenological studies* also assume that the object of study is more than a unique private construction in the mind of a particular individual. However, the main interest of such studies is in discovering how the phenomenon being studied is experienced by the people in the investigation. A phenomenological study of, let us say, parents of children who suffered serious brain damage at birth might ask how it "feels" to be such a parent: How do these people see their situation (for instance as a curse or as an opportunity to serve another human being)? How do they explain it (e.g., as a punishment from God, as a result of their own foolishness, as a random accident that could have happened to anybody, or as the result of technical incompetence on the part of doctors and nurses)? How do they view the future (hopelessness, optimism)? Such studies are mainly descriptive, do not usually involve numerical data, and do not test hypotheses (except for mixed approaches – see Chapter 6).
3. *Radical qualitative studies* are based on a rejection of positivism and indeed of the idea that there are objective facts at all. Theorists

> adopting a radical position argue that the phenomena psychologists study do not exist as specifiable entities at all, but are invented by the people experiencing them or the researchers studying them (cf., postmodernism). The task of the researcher is to interact with the respondent – most frequently by means of an interview, although numerous other possibilities exist – and "build" or "reconstruct" the respondent's ideas.

Discussions in this book emphasize the need to investigate social science phenomena *from the point of view of the people experiencing them*, and accept the idea of the social construction of information. However, they are not radical in the sense just outlined in 3 above. This book does not reject the idea of reality or assume that it is impossible to make generalizations about it. On the contrary, it will show how to collect reliable data and draw scientific conclusions using qualitative methods. What follows is concerned with the question of how to design studies that do this.

Defining the "Object of Study"

The first step is to identify the phenomenon to be studied, i.e., to specify what the research is going to be about. There is a substantial and important difference between the ways this is done in qualitative and quantitative research. A traditional quantitative study is *always based on theory* – as a matter of necessity, the theory precedes the research project. This is because of the deductive nature of quantitative research: A particular study rests upon a hypothesis, which is tested in order to ascertain the applicability of the theory in a new setting or under new conditions. Without the theory there would be no hypothesis and thus no research. A good 50 years ago Meehl (1967, p. 103) warned about "not relying on ad hoc explanations" (i.e., formulating a hypothesis only after the results are already known); such hypotheses are of course irrefutable, so that, in the case of quantitative methods, adjusting the null-hypothesis after you know the results is highly reprehensible. By contrast, qualitative studies may commence without any theory at all, as in the example below, and it is normal to derive theory after you have the data. Nonetheless, even where there is no formal theory, *it is essential that the research has a clearly recognizable focus and specifiable goals*. In other words, it must have an "object of study" (Hamel, 1993, p. 41). In a sense, the object of study in a qualitative research project has the same function as the research hypothesis in a quantitative project.

Kinds of object of study: The object of study can be what Taylor, Bogdan and DeVault (2015, p. 25) called "substantive," or it can be "formal." In the case of substantive research, the purpose is to gain *in-depth understanding* of a particular setting or to provide an

exact and detailed description of special patterns of behaviour in a particular situation. To take an example, substantive research might investigate the patterns of friendships in a prison[12]: Who is friendly with whom and why? The object of study is the prison and the desired result is knowledge about it. By contrast, formal research seeks to develop *theoretical insights* into a behavioural science phenomenon.

In the example just given, the researcher might be interested in investigating the relationship between personality and friendship or between attitudes and friendship, or in looking at psychological factors that affect the process of forming friendships. These are the object of study: The purpose of the research is to improve understanding of these issues, not to describe the prison setting more exactly, although such a description might emerge as a valuable by-product. The prison is not chosen as a setting because prisoners "represent" the general public, but because the alliances represented by friendships have a particular significance for people in prisons and such people can therefore be expected to know a lot about them, i.e., to possess "narrative competence." Ultimately, the study might lead to suggestions for revision of some aspects of social psychological theory such as theory on formation of peer groups, on opinion formation and change, on the development of power relationships, etc.

Taylor, Bogdan and DeVault (2015) argued that whether to pursue a substantive or a formal version of the object of study can be decided once the researcher has had some experience with one or more interviews. The main thing is for researchers to "get their feet wet" (p. 27) by hearing what the first one or two cases (respondents) say. However, research in social science typically requires more than a simple descriptive study. Thus, in designing the study researchers would normally expect to collect data going beyond substantive issues and permitting at least rudimentary formal conclusions.

In discussing qualitative methods, Strauss and Corbin (1998) referred several times to the special position of psychology and education, and seemed to imply that the strong quantitative tradition of these disciplines makes development of theory especially important for qualitative research in them. Thus, in the case of educational and psychological research, especially that of master's and doctoral candidates, there is typically more emphasis on formal than on substantive objects of study, i.e., researchers seek to go beyond description of a setting to obtain understanding of underlying processes and to relate these understandings to existing theory, ultimately even expanding or refining that theory.

[12] Again, this example is not based on an actual research study but has been constructed to aid understanding.

The examples of qualitative research questions on pp. 47ff. help to clarify what is meant by a *formal* object of study. For instance, in the first example it would be "motives for emigrating," in the second "attitudes to seat belts," in the third "understanding of disability." The hoped for ultimate result of research would be not merely a list of motives or feelings but an understanding of how these relate to each other and to general psychological theory in these areas, as well as discussion of what consequences the findings in connection with migrants, drivers or parents respectively have (a) for psychological understanding of motives, feelings and the like and (b) for practical psychological/educational work with groups such as would be migrants, people refusing to wear seatbelts or parents of children with a disability – this could involve counselling, training, educational measures, etc.

The source of the object of study: An important issue here is that of *where researchers obtain ideas about an object of study*. The criterion of coherence already mentioned (see p. 37) demands a consistent internal logic in working out the object of study. In quantitative research the usual source is existing knowledge, and the purpose of the study is to show that that knowledge also applies in a new situation. To take a concrete example, a master's student of the present author was reading research reports on socioeconomic status and intelligence at a Canadian university one day. These emphasized existing findings showing that contact with the dominant culture (whose norms, attitudes and values are reflected in intelligence tests) affected test scores. He realized that towns, small villages and remote settlements within the university's region offered settings with different degrees of such contact. Thus, quantitative thinking (deductive thinking – reasoning from the general to the particular) suggested that mean IQ scores of samples of children should become progressively lower as the children's place of residence progressed from city to country town to small village to isolated bush settlement. Since it was also known that the cultural content effect is stronger in the case of verbal intelligence than non-verbal, it would also be expected via a process of deduction that mean verbal IQs would diminish more markedly than non-verbal.

Appropriate representative samples of children living in the various settings were obtained, intelligence tests administered and scored, and mean IQs calculated. The null hypothesis that there were no differences between group means was rejected: There was a steady reduction in mean IQs of the samples, starting with the city group and proceeding in order from the country town to the remote village to the children living in the bush. Furthermore, this reduction was greater in the case of verbal than non-verbal IQs. It was

therefore concluded (Cropley & Cardey, 1975) that the theory about IQ and cultural contact had been confirmed in a novel setting, thus demonstrating its explanatory power.

In the case of qualitative research, the *coherence* criterion of validity is particularly important. As with quantitative research, the object of study can derive from existing research findings and can rest upon fairly specific expectations that may even take the form of clear hypotheses. In the example just given, for instance, it would have been possible to have investigated the idea, let us say, that people in remote rural areas value different knowledge and skills from those in the city (for instance, in a bush camp it is more important to know how to bait a fishing hook properly than to know what to do if somebody shouts "Fire!" in a crowded room). Thus, a more interesting research question might be that of what knowledge and skills children from different life settings regard as important, and why. Ultimately, the research might lead to a general conclusion that there is no difference in the *amount* of intelligence (mastery of socially relevant skills) displayed by the different groups of children, but substantial differences in the *kind* of skills necessary to get along well in the various life settings. A general conclusion might then be that there are differences in the relevance of conventional intelligence tests to different life settings.

However, in qualitative approaches a particular object of study can also be the result of everyday hunches or intuitions, simple curiosity, or personal experience. For instance, an educational psychologist with a highly intelligent child might be moved to investigate how such children regard school, or what teachers think of clever pupils. Someone who has recently recovered from the experience of losing a loved one might wish to investigate how people cope with such a situation. To return to the example of German migrants to Australia, I became interested in this topic while working at the University of Hamburg. I received several phone calls in the space of two or three months from Germans who were contemplating emigration to Australia and had heard that I was an Australian. The callers were eager to obtain information about that country, as well as advice. These people were in every case successful individuals with a well-paid job. I contacted the Australian Immigration Centre, and they advised me that there had recently been a very large surge in applications for visas. This raised the question of why people who were experiencing economic prosperity wanted to emigrate to a country about which they knew so little, and the object of study became "Reasons for emigrating." Subsequently, with the help of the Australian Immigration Centre, I was able to interview a number of visa applicants. Analysis of the interviews led to recognition of the fact that applicants' motivation was often unclear, even to themselves, and hidden beneath a layer of rationalizations aimed at avoiding cognitive dissonance. This

indicated the necessity of in-depth interviews to investigate such otherwise hidden material on *motivation*, which had now been identified as a more focused object of study as a result of the first interviews.

The data collection method was accordingly changed to in-depth interviews, and the sample was widened to include not just visa applicants but also actual migrants and finally, people who had emigrated but had not been able to deal with the new surroundings and had returned to Germany. Ultimately, an understanding was developed of the structure and function of motives for emigration, and this led to challenges to existing theories of migration such as the cost-benefit approach (i.e., that people migrate to avoid things they do not like and to gain things they desire, seeking to maximize gains and minimize losses), which were labelled "external" in nature. Instead, an "internal" model was proposed that sees migration as simply one possible way of dealing with developmental tasks involving aspects of personality development such as individuation, autonomy and the like (Cropley & Lüthke, 1994).

In this example, personal involvement played a role in identifying the object of study, since I was myself a migrant, as well as being an Australian citizen, while curiosity piqued by everyday experience (the phone calls) was the trigger that set the research in motion. It was conducted without prior hypotheses, and the focus on dynamic motives for emigrating and the subsequent internal model of migration behaviour emerged in the course of the investigation, 'surprising" the researchers, who had not set out to distinguish between internal and external motivation or to demonstrate the connection between migration and personality development. The study also took on some of the characteristics of action research, something which had not been intended when it commenced. The problem of disappointment, failure to settle in the new country and quite frequently relatively rapid return to the homeland, usually with a feeling of shame and failure (as well as financial loss) emerged and aroused considerable interest. Investigating this concrete and for "failed" migrants specific personal problem became an unforeseen aspect of the project: The researchers then worked with such migrants and with counselling agencies both in Australia and in Germany to establish the dimensions of the problem and to work out appropriate responses in pre-migration counselling in Germany and post-migration counselling in Australia. To establish the coherence (validity) of the research, the steps in this evolution of the object of study were described in detail in the research report, in order to bring out their systematic and logical nature.

The Sample in Qualitative Designs

In seeking respondents from whom to obtain information (i.e., in sampling), quantitative researchers sample randomly, obtain a representative sample, construct a stratified sample, or apply related procedures. A failure to sample adequately poses a serious threat both to internal as well as to external validity. Although it is important when reporting a qualitative study to make plain who provided the data in question, sampling matters are often given less prominence in qualitative reports. Nonetheless, constructing an appropriate "sample" is a matter of considerable importance in designing a qualitative study. In effect, qualitative researchers usually select people who they think are well placed to cast light on the particular issue that is of interest to the researcher. Knowledge of the object of study takes precedence over sampling theory.

Narrative competence: At the heart of this approach is an important idea: *narrative competence*. This is the view that all people are competent to describe their own lives and say how they understand them. As Breuer, Muckel and Dieris (2018, p. 76) put it, all individuals are:

> basically able to reflect upon and talk about themselves, about their connections with their objective, social and spiritual-cultural environment, about their world-views and interpretations, their actions, their life stories and their social-historical links [my own translation].

An example can be seen in a study of poverty and the ways in which poor people understand their situation and their relationship to the mainstream society. Instead of concentrating on experts on poverty, such as economists, social workers, unemployment counsellors, even workers in soup kitchens, the researchers concentrated on talking with actual poor people, who were found to possess a rich and differentiated understanding of their situation and to be able to communicate this to researchers. However, although it obviously makes sense to talk with people who are intimately involved with the object of study, two further issues in this area (i.e., in deciding with whom to talk about the object of study) are of particular concern. These are discussed below.

Representativeness: In a quantitative study the object is to broaden the applicability of an existing theory by showing that it holds up for a new population (external validity). The sample from which data are obtained must therefore "represent" the people in the population in whom the researcher is interested. To take an example, a study of the general theory that there is a connection between children's socioeconomic status and their intelligence might test the null hypothesis, "There is no difference between the mean IQs of samples of children

of high and low socioeconomic status." In such a study, the children labelled "low socioeconomic status" would have to *represent* the population of children of low socioeconomic status, while those labelled "high socioeconomic status" would *represent* children of high status. If in a study in Canada the low socioeconomic status children all came from Quebec, any difference that was found might be caused by differences in mother tongue. As a result language would be a confounding variable that would not only prevent generalizing to all Canadian children (external validity), but would also obscure the relationship between socioeconomic status and intelligence, thus also threatening internal validity.

However, the issue is rather different in qualitative research. Here, the crucial question of representativeness can be seen in a different light: It is not a matter of, "To what population can I validly generalize from this sample?" but "What is the object of study for which these cases are appropriate?" Put in a less formal way, the key question is, "Are the members of this 'sample' (the people with whom I am talking) well qualified to tell me about my object of study?" "Do they know a lot about it?" "Do they possess *narrative competence*?" As Hamel (1994) put it, when looked at from this point of view the representativeness (or not) of the sample will immediately be apparent to anyone who is familiar with the object of study. For instance, it is obvious that, in principle at least, applicants for a visa to emigrate from Germany to Australia are in a good position to tell a researcher about reasons for applying for a visa to emigrate from Germany to Australia, or that classroom teachers possess relevant information about the effects of class size. Thus, visa applicants are a "representative" sample for a study of reasons for wanting to emigrate, while classroom teachers are a "representative" sample for a study of what goes on in the classroom.

Sample size: A practical question that graduate students engaged in qualitative research frequently ask is how large their sample needs to be. There is a kind of informal, seldom specifically articulated law that the number of interviews required is inversely related to the intensity of each contact: It is as though there were a kind of "quantum of effort" that must be made. This can sometimes be achieved by studying a single case, for instance by conducting 100 hours of systematically recorded and transcribed interviews with, let us say, a famous inventor. Sometimes it requires a substantial number of respondents (e.g., 30 or more two hour talks with individual respondents). Thus, the necessary sample size partly depends upon *the intensity of contact with the individual case or cases under study*.

It also depends to a considerable degree on the object of study – *what the investigation is about*. Obviously, a study of Picasso's views about his own creativity would require only a single respondent – Picasso is an appropriate 'sample" for studying Picasso! However, according to the quantum theory mentioned above, there would need to be an increase in the intensity of the contact, since N = 1. Shaughnessy, Zechmeister and Zechmeister (2014) present an introduction to the nature of single case studies that is very helpful for those wishing to conduct, for instance, a case study.

A third criterion for deciding on the necessary size of the sample is the *breadth of the issue being studied*. Sometimes a single case is sufficient to construct a convincing explanation of a very broad issue: Newton probably did not need to wait for several apples to fall on his head before developing the idea of gravity! Paradoxically, a broadly applicable explanation may require few cases, whereas a narrow explanation may require more. Had Newton theorized more narrowly, let us say, that gravity only acts on fruit, he would have required more cases.

An interesting concept in this context is that of *theoretical sampling* (Glaser & Strauss, 1967). Although this idea will be discussed more fully on page 124, because it is more closely linked with data analysis than with sampling (despite the name), it can be summarised here in a special sense as indicating that the sample is big enough when, in the analysis phase, the addition of further cases brings no change in the conclusions being drawn (i.e., "convergence" is reached –see p. 131). The word "theoretical" refers here not to a theory of sampling but to whether or not additional cases make it necessary to modify a theory arising out of the earlier cases.

Ethical Issues in Research Design

The kinds of research on which this book concentrates always involve human beings. In addition to issues such as how to obtain data in ways that enhance their reliability and validity, working with people in order to investigate their subjective constructions of the world raises *ethical* issues such as avoiding harm – not only physical but also psychological – to the people involved. These issues are present in quantitative research too, but they take on particular importance and assume special forms in qualitative studies because these involve revelation by participants of their personal constructions of the world, and may thus touch upon intimate material in a particularly personal way. The example of research with patients at risk of suicide has already been mentioned, and this example could be added to without effort. Among a number of organizations, such as the Professional Association of German Psychologists and the German Society for Psychology (BDP) or the Australian Psychological

Society (APS), the American Psychological Association (APA) has published guidelines for ethical research.[13]

Confidentiality: Participants have a right to expect that data obtained with them will not be published or otherwise revealed in a way that makes it possible to identify individual respondents. It is usual to regard it as ethical to publish findings that refer only to general tendencies in a group. However, the matter is more complex than at first seems to be the case. For example, in a study of attitudes of police officers in Canada a university lecturer analysed essays about Canadian Indians submitted as a class assignment by experienced officers undertaking in-service training in criminology, and concluded (rightly or wrongly) that many of the officers were profoundly racist. She then openly discussed this impression in other classes and even in public. No individual officer was identified, but considerable harm was done to the public image of the police force, while all officers in the seminar in question were stigmatized as racist. Furthermore, the policemen felt betrayed by their instructor, and their willingness to improve their qualifications as well as their acceptance of behavioural scientists' findings on crime and crime prevention were greatly diminished. The research probably did great harm. Obviously, more is required than simply confidentiality in a formal or technical sense.

Deception: In the past it was common for participants in research studies to receive incomplete information about the purpose of the research or their role in it, or even for them to be actively deceived. Many famous studies of the past in, for instance, social psychology were based on misinforming the participants about the situation, an example being studies in which participants were led to believe that other people present in a group situation were also students who had been recruited as they themselves had for a research study, whereas the other group members were really actors whose job was to make the genuine participants doubt their own senses. In the example in the previous section there was also deception, since the researcher lied to the police officers about the reason for asking them to write the essays and about what she intended to do with their narratives.

Consent: Great emphasis is placed nowadays on obtaining research participants' consent. However, consent is meaningless unless it is *informed*, which, among other things, precludes deception. Although this seems obvious, being informed turns out to have many

[13]A focused discussion of these issues is to be found in the *Ethical Principles of Psychologists and Code of Conduct* of the American Psychological Association, which can be assessed at https://www.apa.org/images/ethics-code-2017_tcm7-218783.pdf

facets: For example, (a) it is impossible to inform people about unforeseen risks; (b) lay people are not in a position to estimate the severity of risks that they do not understand; (c) risks may be direct or indirect. Detailed discussion of risks may also frighten potential participants and convince them that events that are extremely unlikely to occur are in fact probable. (Readers of this book who have been warned by a doctor prior to an operation that there is, let us say, a 1 in 1000 chance of dying under the anaesthetic and have asked themselves if they really need the operation will recognize this phenomenon.) Psychologists also face the problem that informing a participant that psychological consequences could follow can, in some cases, ensure that the consequences do in fact occur, for instance via the workings of suggestibility and *placebo* effects. This seems to suggest that deceiving participants may sometimes be helpful to the researcher or even necessary, despite the fact that deception is now regarded as unethical. Thus, consent too has come to be seen to be a complex concept.

Some of these issues take on particular significance when applied specifically to qualitative research. Focusing on the issue of harm to participants, it is clear that while discussing their own construction of reality with an interviewer may not cause immediate physical damage to respondents (whereas receiving an electric shock may), such a discussion may set in motion processes such as self-questioning. These may continue to have an effect long after the interview has ended, and may have unforeseen, perhaps unforeseeable consequences. This means that it is impossible for the researcher to be absolutely certain that no harm can occur, or for the participant's consent to be fully informed. This issue becomes particularly acute in the case of in-depth interviews, whose purpose is often to bring into awareness material that has been hidden under a layer of rationalizations, repressions, and similar psychological mechanisms, possibly because of its highly unpleasant nature, its painfulness, or the threat it poses to respondents' sense of worth or wellbeing. The respondent may have a strong interest in **not** uncovering such material! Fontana and Frey (1998) went so far as to conclude that most in-depth interviewing is unethical. If the position of Fontana and Frey were accepted, much qualitative research would have to cease. However, some practical steps are available to researchers to reduce the risk of harm.

Avoiding harm: In selecting participants, appropriate attention should be paid to the stability and robustness of their personality, avoiding recruiting respondents who are obviously disturbed or fearful. Interviews should not be pushed to the point where they cause distress to respondents. Researchers who investigate contents that are particularly affect-laden should offer participants the opportunity of appropriate *debriefing*, although without

creating the impression that the interview is primarily for therapeutic purposes or seeming to be engaged in recruiting clients for therapy, or indeed actually doing this.

Fortunately, practical experience shows that participating in a qualitative study can have positive effects for participants, even if these are not actually part of the intention of the researcher. One way such consequences can arise is through the opportunity participating in an investigation can offer for dealing with otherwise seldom-confronted material. The investigation involving Germans considering emigration that has already been mentioned several times provides a concrete example. Participants emphasized that participation had significantly assisted them in coping with their situation. Again, when such unintended beneficial side-effects occur it is important to distinguish between a research study and a treatment. Beyond the benefit for individual participants, such effects provide a source of insights into potential applications in practical situations, i.e., they increase the usefulness of research (see the discussion of usefulness on p. 152). For example, Cropley and Lüthke (project: German emigrants) developed counselling strategies for people struggling to make a decision, and conducted training seminars for counsellors in several German cities, although such practical application was not part of the original research plan

Assessing the cost-benefit ratio: Shaughnessy, Zechmeister and Zechmeister (2014) summarised the relationship between possible risks to participants and potential value of a project in a useful way. In principle, every study involves dangers for the participants, even if in most cases the risks are infinitesimally small. The existence of risk means that a research project not only should, but also must offer some prospect of usefulness – it must be externally valid. This means that ethical considerations require not only considering and avoiding foreseeable harm, but also specifying what possible *benefits* could flow from a research project. The researcher should work out the possible benefits and weigh these against imaginable risks, thus calculating the risk-benefit ratio. Only where this ratio is high (i.e., potential benefits are very high in comparison with risk) can a study be regarded as ethical. If there are no foreseeable benefits, the research has no external validity and the question must seriously be asked if it can ethically be conducted.

Chapter 5: Collecting data in qualitative research

In collecting qualitative data the fundamental unit of observation is the "case," as a rule, a case is a human being providing information about how he or she understands the world. By far the most common method for collecting such information is the interview, although other forms of data collection exist such as various forms of participant or non-participant observation. Furthermore, researchers do not always interact directly with participants, but sometimes also study already existing sources such as autobiographies, diaries, newspaper articles, films and similar materials, "borrow" material from other researchers, or even collect virtual data. The main thing is that data collection methods reveal the "lived details" of people's lives.

Chapter Glossary

commonplace evidence: evidence derived from people's direct experience with life

covert observation: observation in which the people being observed do not know that this is the case; covertness raises ethical questions such as the issue of informed consent

indirect data: data which were not provided by the respondent specifically for the particular research project

leading questions: questions whose wording already tells the person being questioned what answer is expected or required

prompts: questions or requests by an interviewer which help the person being interviewed get started or direct attention back to the object of study without leading the respondent (see leading questions)

second-hand data: data obtained by somebody else and "inherited" by the researcher

virtual data: data which are specifically elicited for a particular research project but without direct contact between researcher and respondent (e.g., via the internet)

The Nature of Data in Qualitative Research

The fundamental task of qualitative researchers is to *describe* the everyday life of people as it is constructed in their minds, and to increase understanding of this construction using the scientific concepts of a particular discipline or group of disciplines (Crang & Cook, 2007, p. 4). Action research goes further and applies qualitative methods to the solving of specific concrete problems. Qualitative research thus concentrates on "experiential" or "practical" knowledge (Heron, 1992). What is needed is what Hamel, Dufour and Fortin (1993, p. 31) called "commonplace evidence" derived from people's direct experience with life. This

requires in turn accounts from people actually experiencing or possessing experience of the aspects of the world the researcher is interested in, and the accounts must be true to the context in question. Collecting data on such knowledge involves methods for obtaining "rational verbal reports of experience." Appropriate data collection methods must be in a position to reveal the "lived details" of people's lives (Scheppele, 2004, p. 401). What do such data look like, and how can researchers collect them?

Although some approaches such as action research emphasize that this interaction is a two-way street (i.e., information flows in both directions), with researcher and respondent cooperating to achieve a mutually worked out understanding of the situation being studied, in its simplest conceptualization the interaction involves a researcher obtaining information about a situation in which he or she is interested from a respondent who is well informed about the situation. The information flow may simply involve the researcher using whatever information becomes available or utilizing information that already exists, but in the most obvious situation the researcher *elicits* information from the respondent. This information constitutes the data in the research study.

The physical form of data: Although the fact that data can take other forms (such as film or photographs, artwork or even dance) must be emphasized again, the practical fact is that in most studies, the information is almost always provided in *verbal* form (i.e., in the form of a narrative), although narratives may be

- spoken (as in the case of interviews)
- written (e.g., biographies, diaries, letters)
- printed (e.g., official documents, newspapers or magazines, books)
- in electronic form (e.g., films, tapes, videos or computer disks).

When verbal statements are recorded specifically for the purposes of a research project the data may be written down by the researcher or by the respondents themselves. Where respondents speak their accounts (as in an interview), these are very frequently (although not always) recorded in the form of written notes made by the researcher or by electronic means (e.g., tape recorder, video). Prior to being analysed, electronic records are almost always transcribed into written form, although written data may be supplemented by tapes or similar material. Indeed, some writers give considerable emphasis to the importance of flanking data – such as video recordings – in the analysis of data. To sum up, no matter what form the original narrative takes (interview, written document, video or audiotape), the data in qualitative studies most commonly, although admittedly not always, consist of passages of text.

Using existing data: Although it represents a relatively unusual approach, it is possible to carry out qualitative research without actually collecting any new data at all! This is done by taking over narratives *that already exist*. One of the most obvious ways of doing this is to make use of written personal statements such as diaries, autobiographies, or letters, in which people have already recorded their impressions or their experiences prior to the commencement of the research without any knowledge or intention connected with the research. It is also possible to use as data other highly personal statements such as speeches, even sermons and the like, that are less private than the sources mentioned above because they were meant for public consumption. Public material like government decrees or policy statements and similar public documents that may reflect not the views of an individual but those of an organization or agency such as a political party, a firm, a club or a society can also be analysed. Related sources are official documents such as school, hospital or police records. Some researchers work with novels, films or soap operas, even artworks. Advertising material can also be treated as data, as can newspaper reports, radio or TV broadcasts. In theory, all of these can be analysed via variants of the procedures to be described in Chapter 7.

Second-hand data: It is also possible to use "second hand" data (i.e., new data, but collected by someone else). An example is to be seen in Gray and Kunkel's (2001) study of ballet dancers in the USA shortly after a bitter dispute between dancers and employers. The data were journalistic reports of interviews with dancers published nearly 20 years before Gray and Kunkel became interested in the topic in question (Gordon, 1983). This study is discussed in greater detail on pages 174-175. Such data are particularly useful in psycho-historical research, where the collection of fresh data is impossible: An example would be a study of speeches and other public statements of world leaders in the period immediately preceding the Second World War in 1939, in order to ascertain their state of mind at that time. The evaluation of existing material proves to be particularly useful for historical investigations in which the collection of personal data would be completely excluded, for example, because the people being studied have long since died. Freud's (1910) study of Leonardo provides a good example.

"Virtual" data: A recent addition to the possibilities for collecting data involves using the internet. This approach is neither fully "direct" nor fully "indirect." There is no physical contact between the researcher and participants, as in for instance interviews, but, unlike genuinely indirect methods such as analyses of diaries, the researcher deliberately elicits or provokes the responses of the participants, something which is typical of direct contact

methods such as interviews. Using the terminology of modern information technology it thus involves what Andersone (2002) called a "virtual" discussion or a "virtual" focus group (see below for a brief introduction to focus groups).

> In a study of the social effects of computer games Andersone posted several rather confrontational and essentially negative statements about such games in an internet chat room, and invited other participants to respond. She received 216 written replies in which the people reacted directly to her message and expressed their views on the games, despite the fact that she had no physical contact with them – hence the term "virtual" discussion. These responses were subjected to a form of content analysis (see Chapter 7) which identified a number of general dimensions that showed how players of computer games and bystanders construct the games: (a) "computer games as a problem" (e.g., the games cause conflict between husbands who are dedicated players and wives who feel neglected); (b) "values" (e.g., much of real life is futile, but there is something decisive about the games); (c) "fatigue and depression" (e.g., games offer an escape from a feeling of being burned out by the stresses and strains of real life); (d) "hedonism" (e.g., games offer a chance to have some fun), (e) "recreation" (e.g., games offer the chance of a rest from intellectual challenge or the mirror image: certain games offer an intellectual challenge); and (f) "communication" (e.g., through the games it is possible to avoid having to communicate with other people or, in the case of certain games only, games foster communication).

Nonverbal data: It has just been said that the data almost always consist of verbalizations. There is, however, a further kind of data that is easily overlooked – not language but *body language*. Respondents' narratives, especially when they take the form of an interview, are often accompanied by facial expressions such as smiles (sometimes even audible laughter), or the opposite, grimaces, scowls, even tears. There may also be gestures such as waving of the hands, pointing of the fingers, balling of the fists, etc., or body movements and attitudes (e.g., tensing of the muscles, refusing to look at the interviewer, sitting stiffly in the chair). Interviewers can make notes on such behaviour as it occurs. Of course, data of this kind cannot be gathered where there is no direct contact between researcher and respondent, such as when existing documents are analysed, since observational data require face-to-face contact between researcher and respondent, as well as a researcher who is not totally preoccupied with recording the respondent's remarks. Thus, recording respondents' behaviour on videotape is particularly valuable, because it makes it

possible to collect nonverbal data without the necessity of making extensive notes at the time of the interview. Such data can greatly enrich descriptions and interpretations resulting from analysis of qualitative data.

Methods for Collecting Data

Although a number of alternative ways of collecting qualitative data have just been mentioned, the remainder of this chapter focuses on collecting new data via direct observations of people in relevant settings. (Where data already exist, as is the case with archive material, literary or artworks for instance, the main problem is not collecting them, but analysing them, and this issue will be taken up in the next chapter.) A variety of methods exists for doing this, and some of these will now be discussed.

Participant observation: Better known and more commonly applied outside psychology and education, for instance in sociology, anthropology or ethnography, is the method of *participant observation*. This is (Jorgensen, 1989, p. 9): "… a strategy for gaining access to phenomena that commonly are obscured from the standpoint of a nonparticipant." The key to participant observation (as against non-participant observation), is that the researcher collects information within a social milieu by taking on a role in that milieu. This usually occurs in such a way that it is not apparent to the people being observed that it is happening (i.e., the observation is *covert*), except perhaps for a small number who are "in the know."

In one particularly insightful study in an educational setting Buckley (1975) spent a year working as a staff member in a German *gymnasium* (academic secondary school) at a time when schools in Germany were involved in a process of transformation from authoritarian to more "democratic" methods of self-government. This process involved weakening of the power of the school principal and senior staff and strengthening of the role of students and non-academic staff such as laboratory assistants and even janitors, the latter comprising a group that had not previously participated in the decision-making process. During the year Buckley kept written notes of behaviour and statements at staff meetings, in committees, in the classroom and in recreational activities such as sport, even relaxation in the pub after meetings or other events. These written notes were his data. Subsequently, he wrote these up in a chronologically organized account using pseudonyms and other mechanisms to protect participants' identities. This entertaining account can be read almost as a biographical novel, but its scientific value is that it gives many concrete and "human" examples of the tensions and contradictions, alliances and enmities, fears and other feelings, as well as the coping strategies that accompanied the change process.

Buckley's study demonstrates several aspects of participant observation emphasized by Jorgensen (1989). He had a definite role in the system he was observing (he was a teacher at the school in question), while, in addition to notes he made on his observations of people's behaviour, much of the data he gathered were collected in the course of informal conversations or via casual questioning that took place in work or work-related settings where the respondents were not aware that they were providing data. The need to fulfil a real role means that participant observation requires skill in using the everyday interactions required by the role in two ways: (a) as "normal" interactions with colleagues, fellow group members and the like (in the role of participant); (b) as sources of data (in the role of researcher).

Thus, ordinary conversations become, in a sense, interviews, without ceasing to be conversations. The actual data usually take the form of written notes made by the observer, although documents can also be analysed (e.g., letters, memoranda, minutes of committee meetings, policy statements, etc.), while tape-recordings and videotapes are also possible, probably covertly. It is thus necessary to routinize writing up of notes or other forms of information recording, for instance by writing them up every evening. Nowadays, participant observation of this kind raises obvious ethical issues, especially the question of *informed consent* (see Chapter 4), which appears to be partially or completely lacking in many studies, as well as that of *deception*, which seems to be a necessary part of such research, especially covert research.

***Non-participant observation*:** Non-participant observation is well known in empirical classroom research and has often been used in the past in, for example, studies in the style of Flanders (1970). Much of what was said in the previous paragraphs applies in non-participant observation too (e.g., use of flanking material, disciplined regular writing up of protocols or other kinds of notes). In many such studies the frequency with which certain specific behaviours specified in advance by the researcher (such as a child seeking to attract the teacher's attention in order to answer a question) is *counted*. Such studies have many of the characteristics of quantitative research (e.g., they are etic – the researcher specifies in advance what data will be recorded, probably on the basis of existing theory – and data are recorded in numerical form and null-hypotheses tested). For this reason they will not be discussed in detail here.

Shadowing: A special variant of the observation approach which is more participatory than observation as described in the previous paragraph but less participatory than the approach in the Buckley study is *shadowing*; this is especially (although not

exclusively) appropriate for use in studies of organizations. During shadowing the researcher accompanies a single participant everywhere the person goes in the course of the activity that is being investigated such as a normal working day. The shadower is present, for instance, in meetings or presentations where the participant takes part or is even in charge, observes conversations or interviews with managers or colleagues, listens to telephone conversations, even sits nearby when the participant is working at his or her desk or workplace. The researcher writes up a protocol which contains both notes made in the course of the shadowing and also other sources of information (such as documents or audio- or videotapes). A memory protocol can also be written up each evening.

In principle, two kinds of data are collected in the course of shadowing: (a) data pertaining to what the participant or other people did or said, and (b) data on the reasons why the participant behaved in the way he or she did. This latter kind of data consists as a rule of statements made by the person being shadowed, either spontaneous remarks (e.g.: "That'll show him who's boss around here!") or else answers to specific questions posed by the researcher. Thus, shadowing is *holistic* and *context-specific*. It focuses not only on concrete behaviours in a specific situation (context), but also on the subjective reasons for those behaviours (e.g., wishes, feelings, opinions, attitudes, values, ambitions, and the like). These are directly observed both in the specific context in which they occur and in the exact way they actually occur there, not for instance through reports made by people discussing a situation as they recall it, and certainly not through ticking items on checklists.

Case studies: *Case studies* were particularly prominent in sociology in its earlier years, and were widely used to try to develop general theory (see Hamel, Dufour and Fortin, 1993). In sociology or anthropology the case is often (a) a broad, informal social group or system such as drug users or football fans; (b) a more clearly defined group such as nurses, ballet dancers, or police officers, or (c) a formal, narrowly defined group (e.g., a particular school class). Stake (1998, p. 88) distinguished among three kinds of case study:

1. *the "intrinsic" case study*, which focuses on a single case (i.e., N = 1), because of the overpowering interest of the case in question. Picasso, Einstein, DaVinci or Freud would be examples of "overpowering" cases;
2. *the "collective" case study* which aims at enlarging understanding of the collective of cases (as against an individual person), as in the example of a study of friendships in prison already discussed. What special processes determine interactions among members of the collective and what factors guide these processes? Can the social psychology of the collective of prison

inmates be compared with that of other collectives such as professional football players?

3. *the "instrumental" case study*, whose aim is to gain insight into a phenomenon or to refine theory, rather than to study a particular person or group. The case or cases studied are selected because they are particularly useful for refining theory, not because of their overwhelming intrinsic interest as people. The "classic" example is Ebbinghaus's (1885) study of memory and the processes of forgetting. Ebbinghaus – who was simultaneously researcher and "case" – observed himself over a period of several months, during which he learned lists of nonsense syllables, forgot them, then relearned them. Almost 100 years later Ericsson, Chase and Faloon (1980) conducted a similar study, also with a single case. In these two examples, it was not the particular person who was the object of study but the psychological phenomenon of memory. In a certain sense the researchers took as the case any convenient person who was available.

   A further example of an instrumental case study is to be seen in the study of Riddoch and Humphreys (1987) on the steering of visual recognition of stimuli by stored information. The case they studied was a man who had suffered a brain injury and, as a result, experienced great difficulty in recognizing people, despite the fact that he knew them well (e.g., members of his family). This study is particularly interesting because it demonstrates the use of a pathological case to cast light on "normal" processes. The particular person involved (the case) was not chosen by chance, because not every potential participant would have been equally informative, but despite this it was not the particular person who was of interest, but a general psychological phenomenon (i.e., the case was an "instrument" for investigating a phenomenon, not the actual object of study).

In psychology and education the focus is frequently on individual people. Thus, to use the terminology of quantitative methodology, in case studies in psychology and education it is common that N=1. The question of sample size is, of course, automatically answered when N=1 and, remembering the "quantum of effort" theory (there is an inverse relationship between sample size and intensity of treatment of the individual cases, i.e., the smaller the number of cases the greater the intensity with which each case is examined), it is obvious that the depth of treatment must be substantial when a single case is investigated.

The data obtained from a case study may be in the form of a narrative provided by the person in question (such as an interview protocol) or notes yielded by observation of the "case" (see the discussion above of observational approaches). In some studies, the data have been "second hand" in the form of diaries and letters, autobiographies or biographies, or similar documents. In one famous study Allport (1965) investigated the mother-son relationship by analysing 301 letters that a mother had written to her son. The data can also be works of the person being studied (e.g., the paintings of Picasso), which could be analysed for instance for the presence of certain themes such as violence, joy, despair, and the like, or for other kinds of content such as original scientific ideas or prophetic statements (e.g., in the writings and technical drawings left by Leonardo da Vinci). An example can be seen in a case study at the University of Hamburg of the German poet, Friedrich Leopold von Hardenburg, known as "Novalis," whose work greatly influenced 19th Century Romanticism. He wrote many short poems whose contents were analysed using content analysis (see Chapter 7) in order to identify themes related to death. Because the dates when the poems were written is known, it was possible to relate the appearance of the death theme in the poems to real events in Novalis's life, such as the early death of his fiancée, Sophie von Kühn, and to show that the kind of poetry he wrote was closely connected with such events. Thus, his creativity was shaped by things that happened in his immediate, everyday life.

Gunersel (2009) described a case study project which combines several aspects of the qualitative case study approach just described and also introduces an extension of this method – the *multiple case study* approach, in which a single issue is studied by combining information from more than one case. A detailed discussion of Gunersel's (2009) analysis of her data and the results would be premature at this point. However, it can be mentioned that she carried out the analysis in two phases. In the first phase each case was analysed separately. "Content units" (see pp. 131-133) were identified and clarified using the method of constant comparisons (p. 137), content units with similar content were then combined to form "categories" (pp. 136-137), and finally what in this book are called "concepts" were built up (p. 137). In the second phase a cross-case analysis of the results of the first phase was carried out in order to draw more general conclusions. Three broad kinds of influence were identified: environmental catalysts, support networks, and self-efficacy, with specific catalysts and networks emerging for different authors.[14]

[14] Gunersel's descriptions of her data collection and analysis provide examples of how to deal with a number of practical issues which are discussed in a clear and concrete way and provide almost a case study of several issues in qualitative methodology, especially as it is conceptualized in this book. Readers are advised to read the

Four prominent Turkish authors – one of whom has already been nominated for the Nobel Prize on several occasions – were studied in order to gain insights into the most important social factors that influence the development of people as authors. The particular participants were selected because they all possessed intensive "intrinsic" knowledge (see above) of the object of study, i.e., they possessed "narrative competence," not on the basis of some statistical procedure such as random sampling. Semi-structured interviews were conducted based on an extremely compact list containing only three fairly general questions, one of which was exemplary for open interviews: "What influenced the development of your creativity?"[15] The interviewer also had "prompts" handy, in case a respondent began to answer in too general a way (e.g., "What do you understand by "creativity"?). These interviews, which lasted 1-2 hours (i.e., not a great deal of time – see discussion of the "quantum of effort"), were recorded by tape recorder and transcribed later. In addition, further data from other existing sources were also collected: among other things audio- or video interviews, biographies, book reviews, newspaper articles or material from the internet. In other words, the rather brief interviews were fleshed out with additional data from existing sources, and in this way the quantum of effort fulfilled.

Weaknesses of the case study: The case study approach is beset by a number of problems. The data may be highly idiosyncratic, i.e., specific or peculiar to a single respondent or even to the interaction between a particular respondent and a particular researcher. A case study of the development of Picasso's creativity would obviously require only a single case (Picasso himself) and would obviously be extremely interesting and informative. However, such a study demonstrates two problems: (a) The extent to which creative processes in Picasso were peculiar to him alone (*the problem of idiosyncrasy*); (b) The extent to which their nature and development in him was typical of creative people (*the problem of generalizability*). Kampylis and Valtenen (2010) also made the point that acknowledged towering personages sometimes simply parrot public stereotypes of themselves that enhance their special status, such as the idea that they are a kind of conduit for messages from higher powers, that their ideas come out of the blue, that they have

article – which is readily available at http://dtserv2.compsy.uni-jena.de/ss2012/ndlger/73307830/content.nsf/Pages/0AA95935E87B0E9AC1257A320041EDEF/$FILE/aca-3-4-222.pdf – after they have finished this book.

[15] This question is exemplary because it unequivocally directed the attention of the respondents to the object of study but remained open and left the construction and organisation of answers to each particular respondent.

sacrificed all for their work, or that they are above conventional standards and norms. Silvia, Kaufman, Reiter-Palmon and Wigert (2011) concluded, however, that this does not involve deliberate deception, but reflects the fact that public figures can easily become simply pretentious.

The reliability and validity of case studies: These issues raise questions of bias and rigour that ultimately cast doubt on the reliability and validity of case studies. As a result, as Hamel, Dufour and Fortin (1993, p. 23) pointed out, the case study came to be seen as involving a "prescientific heuristic," most useful for exploratory studies. For example, the fictitious case study of Picasso just mentioned could easily function as a rich source of hypotheses about creativity and the person. It is well known, for instance, that women experienced severe difficulties in intense relationships with him. He seems to have been uncaring, selfish, cruel and exploitative of them. This raises questions such as whether these are typical characteristics of men hailed as creative geniuses. More generally, without prejudging the nature of the relationships, it could be asked whether there is a systematic connection between interpersonal relations and creativity.

According to Kromrey (2009, p. 507) case studies are mainly useful as exploratory studies. They are valuable in order to (a) "help develop grounded theoretical concepts, theories and hypotheses," (b) to "add to the plausibility of such theories or hypotheses," or (c) to "provide concrete examples of results of quantitative research." However, case studies offer possibilities that go beyond their "prescientific" usefulness as a "breeding ground for hypotheses" (Shaughnessy, Zechmeister & Zechmeister, 2014, p. 311). For instance, a specific concrete case can (d) demonstrate a rare phenomenon or a unique combination of circumstances that are so uncommon that they can only be investigated by looking at the specific case or cases: A once in a hundred years case like Picasso is an example, as are the rare cases of "feral children" such as Victor the Wild Boy of Aveyron, or Amela and Shamela, who are thought to have grown up in India without contact with other human beings. (e) cast light on the distribution of a phenomenon under everyday conditions or (f) provide examples of how the phenomenon departs from the normal under extraordinary conditions. A series of linked case studies conducted over time with either the same person or several people can also (g) show how a phenomenon develops with the passage of time, in something the same way as was done in the Novalis study mentioned above.

Autobiographical narratives: Autobiographical narratives are accounts of personal experience. The study of autobiographical narratives makes it possible to understand better how people construct the meaning of their lives (Bruner, 1990) and develop "narrative

identity" (Ricoeur, 1991, p. 73). A central tenet of this approach is that during the course of actual experience – regardless of whether it involves ordinary routines, great adventures, or traumatic events – at the moment of its occurrence the experience usually has uncertain or ambivalent meaning, or even none at all (Gusdorf, 1980). It is the subsequent narration of the experiences that gives them meaning. A structured narrative "assigns a cohesive meaning" to the events that are being recounted (Vīķis-Freibergs, 1991). An autobiographical narrative can be brief and focused on a specific event, or it can be a lengthy narration about extended sequences of events spanning decades or even an entire lifetime. The narrative can be spoken or it can be written, but by nature it is a story with a beginning, a middle and an end. This does not mean that the narrative needs to follow a classical plot structure, but rather that it begins and finishes at specific moments in time. The contents can be presented as fiction or as fact; if they involve the narrator's own "lived experiences" we speak of an *auto*biographical narrative, also commonly referred to as a "life story" or a "life history."

The etymological roots of the term "autobiography" hold several keys to its function and significance. It has three elements: "*auto*" (concerning oneself), "*bio*" (involving the person's life) and "*graph*" (presented in written form). Literary theorists such as Gusdorf (1980) and Olney (1980) noted that prior to the past several decades, autobiographical narrations, particularly in the form of written texts, were considered to be relatively accurate or veridical reflections of a person's life (i.e., of the "*bios"*). Following in the footsteps of Aristotle, memories were considered to be direct copies of personal experience "isomorphically imprinted in the soul" (Casey, 1987). Nowadays, however, the relationship between an autobiographical narrative and a person's actual concrete experiences is conceptualized differently, although there are differences according to various philosophical positions.

This book accepts the hermeneutic position (see page 139 for a more detailed discussion), which asserts that actual experience "elicits" or "constrains" the story, to be sure (i.e., the narrative is derived from lived experience), but that the story also "articulates and modifies the experience" (Widdershoven, 1993) – people's narratives of their experiences provide those experiences with meaning and also affect how subsequent events are understood. Discussion during the past several decades has thus emphasized the "*autos."* Autobiographical narration is not regarded as a photographic re-presentation of what has been experienced in the past, but rather as a process of construction focused on the self, a "creation of the self by the self" (Gusdorf, 1980). Olney (1980) made the same point in a slightly different way by concluding that an autobiography "half discovers, half creates" the self.

French post-structuralists such as Roland Barthes have contended that the most important aspect is the text – the grapheme – and that "... the subject is merely an effect of language." However, the view taken in this book is that the construction of an autobiographical narrative entails a weaving together of the *bios*, the *autos*, and the *grapheme*.

Sebre (1992) provides a helpful example of an autobiographical study. A total of 10 sibling pairs now living in the United States who fled Latvia for Germany in 1944 were asked to describe the experience of flight. The interviews were structured on the basis of specific questions. Examples include: "What can you remember about the Soviet occupation of Latvia?" Or "How did you react when you realized that your family had to flee from home?" The written transcriptions of the interviews were subjected to a kind of content analysis. An initial unexpected finding was that there were often large differences between the narratives of the individual members of a particular sibling pair, even though both participants had experienced the same events side by side. These differences related to different emphases on specific aspects of events as well as differences in the emotional significance of the events described. For example, one member of one pair experienced the singing of the Latvian national anthem as the ship left Riga as a truly tragic moment, whereas the other sibling saw it as hypocrisy. Sebre found that in some respects there were greater similarities among participants belonging to the same age than between siblings belonging to the same family, and concluded that the way such events are subjectively experienced is strongly age-dependent. According to Sebre, the "distortion" of interview statements through the effects of social construction poses a particular problem in analyzing biographical narratives. She recommended a hermeneutic approach (see p. 138) that constantly seeks not only to sink deep into the data and be absorbed by them, but also to constantly ask, "What does the text mean overall?" Although the text is deconstructed into content units – as in most qualitative investigations (see p. 132ff) – the hermeneutic approach requires that the overall meaning of the entire text be kept in mind when interpreting deconstructed fragments of it.

Interviews

Although a number of other ways of collecting qualitative data have just been outlined, Briggs (1986) estimated that 90% of all social science investigations make use of interviews. The proportion may be lower in psychology and education, but Briggs's estimate leaves no doubt about the importance of interviews as a research tool. The interview can be regarded as "a device for inciting narrative production" (Holstein & Gubrium, 2015, p. 25). What is

required in a narrative is what Geertz (2000, p. 3) called a "thick description" of the interview partner's construction of reality. Typically, this is not a continuous, unbroken monologue but a series of responses to "prompts" from the researcher such as, "Tell me more." As will be shown in more detail below, there are, in fact, different kinds of interview. The earlier discussion of problems of the social construction of knowledge (pp. 68-72) applies particularly in interview situations. One of the responses to this problem is to develop principles of "good practice" in interviewing – rules on how to do it in ways that allow the position of the respondent to be most truly represented in the material that results. These may be divided into rules of good practice representing the "traditional" view and those deriving from a more "radical" view.

As summarised by Douglas (1985), the traditional view is to regard the person being interviewed (the respondent) as a "repository of information" or a "basket full of answers." The interviewer's task is then seen as obtaining unrestricted access to what the respondent knows or thinks, in a way that produces accurate information. There are two fundamental tasks for the interviewer: (a) to create an appropriate atmosphere, (b) to formulate questions in such a way that respondents can give answers that do not distort their views. The former means being friendly but maintaining a certain personal distance, making respondents feel that they are being taken seriously, avoiding being judgmental with them about their views (i.e., not obviously agreeing or disagreeing, showing signs of approval or disapproval, or indicating belief or disbelief), and avoiding challenging or "grilling" respondents. The interviewer's behaviour and body language should also be respectful and alert (i.e., displaying interest) but non-directive, in order to avoid phenomena such as the Greenspoon effect described on page 70.

The interviewer is expected to lead the interview, although to different degrees depending upon how structured it is, and to keep it from wandering away from the topic under discussion, but not to assume too active a role, for instance by behaving as thought the interview were a casual conversation between two acquaintances. These considerations mean that interviewers should:

1. use appropriate language (e.g., they should not use specialized psychological jargon with laypersons);
2. avoid leading or tendentious questions that put words into respondents' mouths;
3. avoid going into details of the research;
4. avoid entering into private conversation with respondents during the interview;

5. ask occasional "check" questions to be certain that an answer has been understood and that the respondent is being consistent in answering;
6. check their own understanding of respondents' meaning by asking appropriate follow-up questions.

These recommendations may seem not to fit well with the traditional image of the researcher as a neutral observer who hides his or her own personality in the interest of scientific objectivity. However, interviewers should not under any circumstances try to behave like a machine or turn themselves into a walking test instrument. In qualitative research, the purpose of interviews is to encourage interview partners to reveal their construction of reality (their internal picture of the world) as openly and fully as possible. To achieve this, interviewers should make use of their full armoury of skills and abilities to lead interviews and persuade people to reveal their thoughts. This means that tact, empathy, insight and the like should be employed. However, interviewers should remember the purpose of research interviews: to obtain information about the interview partner's construction of reality *in order to learn about the object of study*, not in order to gain insight into the problems of the interview partner and establish a therapeutic relationship with him or her.

More radically qualitative writers give more emphasis to the interview as an exchange between two people with a mutual interest. In the case of atmosphere, it is important that respondents feel that they are not only being taken seriously but are being approached as partners. This can be facilitated by a certain degree of *self-disclosure* on the part of interviewers: What is meant here is that they reveal something of their own opinions (without forcing this on the respondent), on the one hand, and that they show something of their own feelings (without appearing excessively nervous, showing impatience or seeming to laugh at the respondent), on the other. Interviewers can also show awareness of respondents' world view and point of view, as well as of their feelings and concerns, not only responding appropriately to these but also allowing them to be thematised in the interview. It can be seen that the ideal of the detached, uninvolved interviewer who stands above both the respondent and also the material being discussed is not supported.

Non-verbal factors: Fontana and Frey (1998) emphasized the importance of nonverbal factors in interviews such as *dress*. An amusing example of problems that can arise from this, involves an attempt to engage habitués of a seedy bar in Hamburg in conversation about their lives as casual labourers in the Hamburg harbour. The interviewer made the

mistake of wearing a suit, and was immediately assumed to be a plain clothes police officer and advised in a very firm manner to go somewhere else! This seems to imply that interviewers should wear casual clothing. However, a mirror-image experience contradicts this view. An adolescent boy in an institution for young offenders spoke very disparagingly about a social worker, whom the boy refused to take seriously. This was surprising, as the young male social worker was regarded as a very open, friendly and engaging person who wore very "cool" clothing such as stone-washed jeans and sandals. When conversation with an older man was turned to the subject of this social worker the boy commented: "Oh you mean the hippy. I'm not interested in talking with a hippy!" It turned out that the boy expected his social worker to be a grave and formal older person in a suit. In this case, a suit would have helped. Thus, there is no simple rule on clothing.

Fontana and Frey (1998) also mentioned body *posture*, to which *facial expression* can be added. These can create the impression of boredom, nervousness and the like. Fontana and Frey drew attention to possibly unintentional *use of personal space* to communicate attitudes that may or may not be desired (e.g., sitting very close to the respondent, which might imply an assumption of intimacy), and body movements or postures such as leaning towards or away from the respondent. Further important aspects of communication in an interview are related to *language* although not part of the actual words used (Fontana and Frey). These include (a) pacing of speech and use of pauses (for instance, long pauses could suggest lack of confidence in the respondent's ability to comprehend) and (b) variations in speed, volume, pitch and quality of language such as shouting, which might imply impatience or surprise. As Fontana and Frey emphasized, it is important to adapt all aspects of communication in interviews to the special characteristics of the people being interviewed. For instance, the desirable level and style of language, degree of informality, kind of clothing, use of personal space and other aspects would differ dramatically with children from what would be appropriate when interviewing recently bereaved widows.

Questions in Interviews

As Jorgensen (1989) pointed out, the first kind of question used in interviews is the simple, informal question typical of normal conversation. Such questions may occur on an impromptu basis, even in a fairly formal interview situation, for instance when the interviewer does not understand a statement or when curiosity is piqued. However, systematic pursuit of a specific object of study requires in addition to such impromptu questions deliberate, purposeful questions. It should be noted that the word "question" is used loosely here to mean any request for information made by the interviewer, even if it is not couched

strictly in the grammatical form of a question. Spradley (1979) described several kinds of systematic interview questions, including:

1. Questions that ask for an overview of some object of study such as “Please tell me about your interest in emigrating;”
2. Questions asking for more detail on some point already introduced (e.g., “What is the most important thing that led you to name Australia as the country you would most like to emigrate to?”;
3. Questions asking for an example of something introduced by the respondent to make it easier for the interviewer to understand (e.g., “Could you give me an example of intolerance of initiative in Germany?”;
4. Questions asking for a concrete example from the respondent’s own life (e.g., “When have you had an initiative blocked by intolerance in Germany?”;
5. Questions asking for clarification of idiosyncratic language (e.g., “Would you give me an example of what you mean by “the tall poppy syndrome” in Australia?”.

It is generally agreed that questions commencing with either “Why?” or “What do you mean?” should be avoided as much as possible, because they imply disagreement or impatience on the part of the interviewer, whereas “What?”, “When?”, “Where?” and “How?” encourage respondents to express their views.

It is well known that the way in which a question is stated can exercise considerable influence on respondents’ answers. Phenomena such as yea-saying and social desirability (see earlier discussions on p. 70) mean that if a question seems to imply that there is a “correct” answer, many respondents will give this answer, regardless of what they really think. A simple example would be a highly suggestive question like: “Surely you wouldn’t be willing to drive without doing up your seatbelt?” A real example can be seen in an opinion survey on beer preferences in which respondents were asked: “Do you prefer a light, sparkling lager or a dark, heavy ale?” Most people said that they preferred the “light, sparkling” beer, despite the fact that at that time in the location in question far more “dark, heavy” ale was sold than lager. It is obvious that “light and sparkling” is better than “dark and heavy,” and it would require a certain amount of courage to admit to a preference for the latter in an interview, regardless of what kind of beer the person in question actually liked to drink. Questions that through the choice of words suggest to the respondent (rightly or wrongly) that a certain answer is expected, are called “leading” questions. It is important to note that respondents may be “led” not only by the wording of questions but also by nonverbal communications

such as nodding or smiling versus frowning, leaning forward or away, or making a note of some answers but not others.

At first glance it seems that interviewers should avoid leading questions, and an obvious reaction to the problem is to try to eliminate it by careful wording of questions and control of the interviewer's body language. However, leading questions have their place. As Kvale (1996) pointed out, they can be used to *check the authenticity of answers*. For instance, if a respondent makes a particular statement but then contradicts this view in response to a leading question, this casts doubt on the view originally expressed. On the other hand, if the respondent resists being led, this adds greatly to the credibility of the answer. Drawing attention to self-contradictory statements can also help to *gain access to hidden ideas*, especially in in-depth interviews. Kvale did not call for elimination of leading questions. On the contrary, he argued that they are not used enough. However, he did emphasize that researchers should be conscious of their own use of such questions and draw attention to them in their research report, so that readers can take account of the questions in interpreting the findings. As was said earlier, it is not a matter of methodological purity but of transparency. The importance of reporting in a thesis or dissertation what questions or prompts were used is made clear by Kvale's assertion that in a certain sense *all* questions asked in interviews are leading questions, as well as by his point that in analysing a text the researcher is in effect asking leading questions of the narrative!

Kinds of Interview

Because of the importance of the interview in qualitative research in psychology and education, this form of data collection will be dealt with in greater detail than the other approaches outlined above. For our purposes, five kinds of interview can be discerned, and these are discussed below.

Open interviews: Such interviews offer respondents only a general field or issue about which they are asked to talk (e.g., "I am interested in the use of seat belts. Would you tell me what you think about this, please"). The interview may seem almost like a conversation, except that the interviewer asks numbers of questions that give the interaction a certain degree of direction. Although always referring in some way to the object of study, these questions may differ substantially from interview to interview, according to the responses of the particular participant. The order in which they are asked may also vary from respondent to respondent, or of course a question may not be asked at all if the respondent has already dealt with the relevant material without need of a question. The crucial element of open interviews is that the researcher attempts to establish how respondents structure the area in

question in their own thinking about it, and what categories they themselves choose when trying to communicate their views to another person. In the seat belt study one respondent spontaneously began to talk about why some people refuse to wear a seat belt, another about parents who risk their children's lives by not buckling them up, a third about the benefits of seat belts in avoiding injury, and so on, thus indicating differing priorities in the minds of different participants. The interviewer may offer encouragement such as "Go on, please," or even the well-known "Uh, huh," but the respondent is not directed in a narrow way to specific issues that are of interest to the researcher, since the researcher's goal is to identify the issues the respondents themselves introduce.

The data yielded by unstructured interviews are the statements made by the respondents. These must eventually be converted to the form of a written record. However, this is often difficult in unstructured interviews because the statements are frequently long and complex. Writing them down verbatim as participants utter them is often more or less impossible, for instance because it would mean interrupting respondents part way through an answer while the interviewer hurriedly wrote it down, not only breaking the respondent's train of thought but also causing the interview to last several hours. Thus, if possible such interviews should be tape-recorded or videoed. Written notes can be made during the interview or afterwards, for instance in the form of a memory protocol, to remind researchers of special observations or ideas that occurred to them in the actual interview. Ultimately, a written record must be developed for later analysis (see Chapter 5), and this may require a great deal of time and effort.

Semi-structured interviews: As the name implies, these are more structured. The researcher will already have some knowledge about the key issues and some expectations of what might emerge, or even wish to focus the interview to some extent. As with unstructured interviews the discussion is initiated with a fairly broad opening question or request that none the less guides the discussion in a particular direction: "I am interested in why so many people do not wear seat belts. What is your view on this?" A small number of general questions or at least *direction-giving cues* or "prompts" (Knapper & Cropley, 1980) will be used to see to it that respondents stick, at least in a broad way, to issues that interest the researcher (e.g., "Is it anything to do with personality, do you think?"). These can be written down for the interviewer on a protocol or recording sheet. However, the interviewer does not have a list of specific concrete questions that are put to all respondents in a set order.

Semi-structured interviews offer better prospects of recording data in writing during the actual interview. For some answers it may not be necessary to note the complete

statement but only a relevant word or phrase, because the researcher already knows more or less what is interesting for the purposes of the particular study. Brief notes of this kind can be expanded afterwards via a memory protocol. However, electronic recording is still extremely valuable, as otherwise much of the spontaneity and richness of respondents' answers may be lost.

Structured interview: This is a highly structured question-and-answer exchange in which the researcher enters the research with specific questions, to which concrete answers are desired. These questions are usually derived from existing theory in the area, from earlier research findings, from a pilot study, or from hunches or intuitions of the researcher, although they may also simply be areas of special interest to the researcher. The questions are frequently read aloud from a protocol or recording sheet that the researcher works from, and are asked of all respondents using the same wording and in a set order, unless a respondent offer relevant answers spontaneously (i.e., before the researcher gets to the question at issue). Sometimes questions are open ended (i.e., the respondents answer in their own words), but in some structured interviews the interviewer may even offer specific alternatives from which the respondent can choose. Frequently, the respondents' statements need not be written down verbatim by the interviewer, since because of the structured nature of the questions only certain "key" words or phrases are interesting to the researcher and only these need be noted. The interview recording sheet may include spaces for noting the key contents of the respondents' answers, some of which may be no more than an indication of agreement or disagreement (e.g., "Do you agree that requiring people to wear a seat belt is an infringement of their basic freedom?").

Such interviews offer certain advantages: They yield pre-structured information, are less time-consuming, and are easier to analyse. Indeed, it is possible to conduct highly structured interviews without direct contact between researcher and respondent, for instance by telephone or even by mail, and the approach is often used for surveys in areas such as political polling or market research. However, there is a danger that they may become little more than spoken questionnaires. According to Jorgensen (1989), the data are less rich, more superficial, and more difficult to interpret. They are also prone to the effects of factors like yea-saying (agreeing with whatever the interviewer asks) or social desirability (giving answers that seem to the respondent to be what the right sort of person would say).

In-depth interviews: Such interviews are characterized by the interviewer's attempt to get below the surface and identify the underlying emotions and feelings experienced by

respondents, or recognize the rationalizations and defences they use when dealing with the issues being discussed. In-depth interviews may thus become almost clinical, even making use of clinical procedures such as free association, encounter techniques, and the like. For instance, an in-depth discussion of why a particular person refuses to use seatbelts might reveal that the whole topic is surrounded by hostility and anger ultimately directed at an over-controlling and authoritarian parent. In an in-depth interview a respondent might reveal that refusing to buckle up is a symbolic act of defiance and a confirmation of the cutting of the psychological umbilical cord. Material of this kind may be disturbing for the respondent, especially one who is sensitive and insightful, and needs to be treated with care. This example confirms the importance in qualitative research of personal properties in the researcher such as empathy, but also responsibility.

Group interviews: As the name implies, these are conducted with more than one respondent at a time, i.e., in a group setting. In theory, all the variants listed above (structured, semi-structured, unstructured, in-depth) are also possible in groups. In the study of German migrants, for instance, a number of group interviews were conducted with people who had applied for an Australian immigrant visa. It was found that rather different themes were emphasized in the group setting than in individual interviews. Once they realized that they were alone with other visa applicants the respondents became much more open in their answers. In other words, mechanisms such as yea-saying, social desirability and avoidance of cognitive dissonance became far less obvious. Fontana and Frey (1998) developed an interesting overview of group interview approaches ranging from the "focus group" – where specific questions based on highly developed expectations based, for instance, on earlier research are put to a group[2] – through "brainstorming" and "Delphi" groups to groups interviewed in the field. Such interviews range from unstructured to structured, and may be used for exploratory purposes (hypothesis finding), for pre-tests and for phenomenological studies.

Although they were writing about focus groups, the principles for conducting group discussions outlined by Stewart and Shamdasani (2015, p. 75) are generally instructive: group interviews are conversations, but conversations among groups of people purposely chosen because they possess narrative competence regarding a specified research topic. The exchange of views in the group interview is conducted by a moderator who is interested in this topic and who takes care that the conversations do not become too lengthy, e.g. by means of an interview guide. Because they take place in the language of the individuals involved (not in the language of tests, for example), such interviews are very productive for the

analysis of perceptions, attitudes, motives, and the like. Group interviews offer additional technical challenges for interviewers: Not only do the usual rules of good practice apply (openness, friendliness, sympathy, ability to encourage reflection and communication, willingness and ability to reveal something of oneself and thus engage in a genuine interaction), but in addition new skills are needed. The interviewer has the further task of moderating a group, for instance discouraging a situation where one or two
members dominate, preventing mobbing, or persuading retiring members of the group to participate. As experience in the migrant and social worker studies already mentioned shows, group interviews stimulate respondents and can greatly facilitate openness. They also yield a large amount of information relative to the time they take.

Chapter 6: Mixed methods in research

Mixed research mixes or combines qualitative and quantitative techniques, methods or designs to explore a single research topic. The justification for this approach is that it provides the most authentic findings, that is, that it is most favourable for external validity. Mixed approaches are not based on a fixed paradigm: they include a number of variants and hybrid forms, including mixed models and mixed methods, allowing a flexible approach to data collection and analysis. There is a broad and multi-faceted – also in part highly critical – literature on the epistemological foundations of mixed approaches (i.e. on their scientific nature) but in this chapter I assume that everything revolves around the question of which method is most productive for casting light on a given problem, especially in practical terms. Thus, I focus on explaining how models can be mixed in ways that improve understanding of the object of study, and emphasize how mixed models can facilitate application of findings in real-world settings.

Chapter Glossary

explanatory mixture of approaches: a mixture of designs in which a secondary data collection takes place *after* the main survey

exploratory mixture of approaches: a mixture of designs in which a preparatory data collection takes place *before* the main survey

mixed methods: a mixture of designs that leads to two data sets, which could also exist separately

mixed models: a mixture of designs that leads to a single dataset in which each datapoint results from the combination of qualitative and quantitative methods

nested mixed designs: a secondary data collection takes place *during* the main survey

pragmatism in research: willingness to use both qualitative and quantitative designs, according to which of the two is more profitable for a specific subject of investigation

reconstruction logic: the idea that research should focus on understanding how people understand the world

sequential mixed designs: the two data collections (qualitative and quantitative) occur one after the other

triangulation: both data collections have equal status. They take place separately, and are only combined at the level of data interpretation

The Core of the Mixed Approach

Tashakkori and Teddlie (2010) summarized the mixed-methods approach as the simultaneous adoption by researchers of the perspectives of both sides in the paradigm wars (see Chapter 1). Johnson and Onwuegbuzie (2004, p. 17) defined the mix of methods as "the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts, or languages into a single study." According to Denzin (2010, p. 419), such "mixed, multiple and emergent methods are everywhere today." Indeed, Hussy, Schreier and Echterhoff (2013, p. 286) remarked that they have become "a kind of fad." There is even a new journal (*Journal of Mixed Methods Research*) that has a solid impact factor.

The application of mixed approaches is based on a "reconstruction logic" (Herborth 2011, pp. 138-42). Stated uncomprisingly, methodologies are seen by some people as nothing more than tools for the collection, analysis and interpretation of information: in the sense of this book this means for the reconstruction of the way participants in a study understand a particular object of study about which they are well informed. To put it less bluntly: research should focus on the solution of a problem and not on the technically perfect application of a particular paradigm (Katzenstein and Sil, 2008, p. 110). Thus, the measure of "correctness" of a procedure is its ability to provide meaningful, understandable, usable answers. A much milder position is also presented by Herborth (2011, p.146): research methodology should not be seen as a corset or prescription, but should be adapted as required for the purpose of casting light on a specific research topic.

This perspective can be contrasted with approaches which insist that satisfying the requirements of an abstract scientific ideal comes first. For the purposes of this discussion, this means the rigid and uncompromising view that there is only one way to study social science phenomena, the dominant quantitative approach with its rigorous sampling techniques, standardized procedures, numerical data-collection toolkit, routinized data analysis, and statistical criteria of the significance of effects. As McManus (2016, p. 157) pointed out, this means that only those phenomena that are accessible to the one true research approach can be investigated. The result is that quantitative methods really are the only course of action that is worth following, since anything else is declared *a priori* to be worthless. By contrast, the core idea of the mixed approach is that a combination of qualitative and quantitative designs can lead to findings that go beyond what is possible with a single approach, and thus promote external validity.

This enrichment of research findings takes several different forms. Examples:

- A qualitative precursor may reveal naive concepts of interview partners that can be followed up quantitatively.
- A qualitative precursor can provide hypotheses that can then be formally examined in a quantitative phase.
- A qualitative intermediate step can provide data that are then converted into quantitative data (qualitative → quantitative).
- A qualitative follow-up can clarify how states revealed in a quantitative study are experienced in the real world (quantitative → qualitative).

Drawing Practical Conclusions: Morgan (1998) pointed out that a mixed approach can be particularly helpful when a project aims at putting knowledge acquired by means of research into practice. For example, quantitative data could be used in medicine to demonstrate that a particular treatment had resulted in a statistically significant improvement in the health of patients with respect to objective variables that can be measured in numbers, such as blood pressure, pulse rate or kidney function. Qualitative data could then show how the people involved subjectively experience their improved state of health, i.e. such data could clarify the *subjective* meaning of *objective* quantitative relationships: Do the people feel differently about their lives, and in what way? Short descriptive anecdotes or direct quotations from interviews, narratives or letters, among other things, could be used to understand what the statistically-ascertained improved state of health actually feels like phenomenologically. The following box gives an example of a study in which the mixed evaluation of a "treatment" both quantitatively (by means of tests) and qualitatively (by means of interviews) went even further, and prevented a finding some researchers would regard as very significant from going unnoticed.

Creativity training was conducted with a group of visitors to a day-care centre for the elderly. Participants were very consistent in their attendance and praised the positive impact of the program so much that groups from other day-care centres asked if the program could be extended to their centres too. After several weeks, participants' post-test scores were compared with pre-test scores in the hope of revealing significant health-related changes, but the comparison of means on both a creativity test and other tests such as a symptom checker could not find a statistically significant effect. Only: in interviews the participants drew attention to clearly noticeable positive effects with regard to their quality of life. Among other things, they were able to see the funny side of old age, could identify their own strengths as well as those of their partners, and felt good about their

own contribution to domestic tasks. Thus, the mixed approach showed that there were effects, but they were qualitative rather than quantitative.

Mixed Models vs. Mixed Methods: The investigation just presented included a mixed situation in which all participants experienced the same "treatment" and both the quantitative and the qualitative data were collected by the same researcher with the same participants, within the same organizational framework and in relation to the same "treatment" (participation in the creativity training). That may all sound understandable in principle, but in scholarly circles there is a controversial, sometimes even embittered discussion, involving both aspects of epistemology and the idea of what is "scientific," as well as questions of what constitutes scientific evidence. In addition, topics such as the effects on data collection and analysis of researchers' worldviews, the power relationship between researchers and respondents, and the treatment of knowledge as the private property of researchers are often discussed controversially (e.g. Denzin, 2010; Johnson & Onwuegbuzie, 2004). As Denzin makes clear, in the last 50 years there have been not one but three paradigm wars (see p. 18). These have included academic struggles among critical theorists, anti-naturalists, feminists, post-positivists and post-structuralists, as well as others, all of whom believe they have discovered the only true paradigm (see Tashakkori and Teddlie, 2010). The disagreements have been discussed on "axiological, ontological, epistemic, epistemological, and methodological levels" (Denzin, 2010, p. 421). Without questioning their importance and with full respect for them, in this book I do not address such abstruse theoretical issues at all. I prefer to focus on the way in which research practice can combine quantitative and qualitative approaches in the same study to make a research topic more "useful."

Tashakkori and Teddlie (2010) concluded that the paradigm wars were over and that the time had come to become "pragmatic" – in other words, to use both qualitative and quantitative approaches, whichever of the two is more profitable for a specific subject of investigation. They went even further, proposing a combination of both approaches to improve both the effectiveness and efficiency of research. In principle, according to Tashakkori and Teddlie, there are two good options for an effective combination of approaches: mixed models on the one hand and mixed methods on the other. However, Hussy, Schreier and Echterhoff (2013, p. 292) concluded that the distinction between mixed models and mixed methods is no longer up-to-date due to the diversity of mixed approaches that now exist. Consequently, they use the term "mixed methods" as a generic term that includes both "multimethod" and "mixed-model" designs. For the sake of simplicity,

however, I still distinguish between two idealized types of mixed approach, which in the following are presented rather plainly and baldly:

(a) Mixed models lead to a single dataset where each datapoint results from the combination of qualitative and quantitative survey methods. Without the combination, the final dataset would not exist. Often the combination is process-like: e.g. a qualitative study leads to the creation of an inductive category system, which then serves as the basis for a deductive quantitative survey. Both approaches, however, are indispensable for the survey.

(b) Mixing methods involve the combination of at least two datasets which can be clearly distinguished from each other (in the simplest case one qualitative and one quantitative), which could also exist separately and could even be, and occasionally have been, collected without any deliberate coordination or combination.

Simplifying rules of thumb:
Mixed models = a single, combined data set
Mixed methods = two data sets, which could also exist separately

Mixed Models

Ideally, mixed models combine qualitative and quantitative survey techniques to collect and/or analyse a single compound dataset. The point is that without the combination of approaches it would be impossible to collect the specific data. For example, qualitative methods can used to formulate hypotheses inductively, which are then tested deductively using quantitative methods. Strictly speaking, this is always the case. Familiarity with a phenomenon is indispensable for formulating hypotheses that can be tested in a specific environment. In hypothesis-driven quantitative research, the hypothesis is derived from existing findings, i.e. from the inductive thinking of earlier researchers. In a typical quantitative research report – such as a master's thesis – there is usually at least one chapter on the origin and the emergence of the hypothesis/hypotheses. By contrast, not only can qualitative surveys begin without such theory, but because of their inductive nature they offer good opportunities for formulating valid hypotheses after the fact. These emerge from the narratives of the participants and depend upon the participants' narrative competence. As Corbin and Strauss (2015, p. 7) put it, in qualitative research theory is "derived from data collected in the course of the research process, not established before the study begins."

Derivation and adoption of terms: Mixed models can use qualitative methods to understand how a particular concept is understood by "normal" people in everyday life, as

against how it is defined by researchers using scientific concepts and terms. Instruments for the quantification of the concept can be developed on the basis of statements made by the participants in the qualitative phase. Practical experience confirms that this procedure can yield questionnaire items that participants at a later stage immediately recognize as an authentic reflection of their opinions. In this case, qualitative methods increase the face validity of questionnaires. The case study example presented in the following box provides an example of such a combination of approaches. It involves a very simple variant of the combination of models. In the first step, the naive concepts by means of which members of the public made sense of the object of research (property insurance) were determined (by asking them in interviews). This resulted in concepts and concrete contents for a typical questionnaire investigation with a new group of participants, and this phase of the investigation yielded findings that eventually led to recommendations for practice.

At the time of the investigation, many insurance companies were facing the serious problem of rising numbers of minor damage claims. The study examined possible reasons for this. In the first step, semi-structured interviews were conducted with insurance brokers and policy holders. The design of this part of the project, the construction of the initial sample and the first phase of the data collection were qualitative in nature. On the basis of a content analysis of the interviews, several decisive motives were identified: Participants wanted to get back more from the insurance than they had put in ("profit motive"), they wanted to be protected from every conceivable type of risk ("protection motive"), and they wanted to be compensated for the smallest loss ("full-coverage motive"). Using verbatim comments made by the people interviewed, the researchers designed a traditional questionnaire to measure the strength of expression of these motives. By administering this instrument to a large new sample of policy holders a link was established between the three motives and quantitative factors such as the number of successful recent claims, age, socioeconomic status, educational attainment, or level of familiarity with television advertising related to property insurance. In the end, the researchers came to the conclusion that the insurers' TV advertising campaigns were simply too successful, over-activating profit and full-coverage motives. The concrete proposal for a practical "defensive action" was a redesign of the advertising message to move its focus away from the claims mentality – according to which suffering a loss seems to be almost a blessing – and to emphasize the protection motive.

Deriving quantitative data from qualitative: An even stronger intertwining of quantitative and qualitative models is presented in the next case study. Both approaches were

indispensable for this piece of research. The same data were analysed both qualitatively and quantitatively, but both the quantitative data and the quantitative analysis were based on the qualitative findings. The study provided findings regarding both the type (qualitative statements) and the frequency, intensity and severity of the participants' reactions (quantitative statements). Consequently, it was possible to address quantitative questions, such as whether extra-punitive reactions were more frequent in the group than intra-punitive ones, or whether those women with the most intense responses had an impoverished affect spectrum, as the Weber-Fechner law would predict.

The psychological reactions of young women whose parents had divorced during their adolescence were investigated. Since the divorce the women had never, or had only rarely, had contact with their father. The protocols of interviews with the women were subjected to a content analysis to determine how they experienced the separation. The following types of reaction were observed: 1. feelings of loss, 2. yearning, 3. doubt and helplessness, 4. anger (extra-punitive reaction directed against the parents), 5. guilt feelings (self-directed intra-punitive reaction because they believed they themselves were responsible for the separation of the parents). These findings identified the *kind* of reaction experienced by the participants in the study (qualitative). Subsequently, the proportion of women who mentioned each feeling was calculated. These data allowed a statement about the *extent* to which the various reactions were present in the whole group (quantitative). The intensity of each response was also calculated for each participant by counting the frequency with which she mentioned the feeling of loss, longing, helplessness, anger or guilt. In addition, the strength of feeling was calculated by assigning numerical values to each relevant statement: For example, "From time to time, I miss my father," was classified as a faint feeling and received one point; "Often I have the feeling that I cannot live without my father," on the other hand, was classified as a very strong feeling and received 5 points. Intermediate values received 2 to 4 points. It then became possible to test null hypotheses such as: "There is no difference in guilt feelings between women who were 12 or over when their parents split up and those who were under 12."

Mixed Methods

At least in theory, mixed methods can mix qualitative and quantitative approaches in all phases of an investigation: research design, setting, data collection method, data type, data evaluation, and generalization strategies. For example, the same set of data could be

subjected to two evaluation methods, thus constructing two sets of results that could be compared, although they do not have to be. Another example would be a study in which data were collected using not just a laboratory experiment but also a series of interviews with the same participants. The data resulting from the experiment (stereotypical quantitative data, see Table 2.1) could be subjected to a standard statistical analysis. The interview data, on the other hand, could be subjected to a content analysis (a stereotypical qualitative method, see Table 2.1) and the two results compared. Nowadays, four types of mixed methods are frequently distinguished: exploratory, explanatory, and nested designs, and triangulation (see Creswell, Klassen, Plano Clark and Clegg Smith, 2011). In this section, I will slightly revise this classification scheme and distinguish between two bipolar dimensions: exploratory versus explanatory designs on the one hand, and nested versus sequential designs on the other. However, it must be kept in mind that these categories are not exclusive. A simple example: an explanatory design (see below) can be nested or sequential. Explanatory sequential designs are often discussed under the heading "triangulation" (Creswell, Klassen, Plano Clark, and Clegg Smith, 2011).

- *Exploratory designs*: such designs involve an initial investigation that functions as a precursor to a partner investigation that is usually regarded as the "real" investigation. The initial, exploratory investigation leads to the discovery of structures or contexts in situations where the researcher cannot or does not want to resort directly to existing knowledge, models and concepts, for example by studying the literature. This happens, for example, because little or nothing is known about the research subject or because the researcher wants to deal with this subject without preconceptions. Initially, such designs are not based on hypotheses – otherwise they would not be exploratory. Most frequently, but not always, the iniial investigation takes the form of a qualitative study that provides material that is then used for the purposes of a subsequent quantitative study. Particularly suitable for exploratory purposes are, among other things, unstructured interviews with individuals or experts – as was done in the insurance case study in the box above – focus-group interviews, expert discussions or unstructured observations, although other data sources (such as diaries, observation procedures, etc.) are also conceivable.
- *Explanatory designs*: as the label suggests, explanatory investigations involve are usually carried out *after* the main investigation. Their purpose is to improve understanding of the findings of the main investigation. The qualitative assessment

of the quality of life of some visitors to the day-care centre (see the box on page 109), which followed the quantitative investigation based on scores on tests and rating scales, made it possible to further differentiate the numerical results of the quantitative analysis by taking into account the subjective experience of the participants once the quasi-experimental main procedure had been completed. Because explanatory designs are mostly done after the main study (it is not possible to explain what is not there yet), explanatory designs are mostly sequential, usually quantitative followed by qualitative.

- *Nested designs*: In nested designs, one type of survey plays the key role; the results of this survey could stand alone and would be enlightening even without data from the other method, although incomplete. The methodological approach (opportunity sampling versus structured sampling, the use of narratives versus testing to collect data, meaning versus statistical, hypothesis-driven data analysis) is consistent with the norms of the dominant method. The data of the secondary method are collected more or less incidentally during the main study; without the primary data, they would not make sense. Nested designs are often nested in a quantitative design to make the research set-up easier to understand, to develop questionnaires, or to identify participants who possess narrative competence.
- *Sequential designs*: In a typical sequential design, a researcher first collects quantitative, mostly numerical data - although the reverse order is conceivable. These data are analysed and then data of the other kind are collected in a second step. In a process of "mutual elaboration" the new data supplement the results of the first phase. The mutual elaboration involves combination of approaches *at the level of interpretation*, but not at the level of data collection or analysis; otherwise the design would involve nesting. Sequential designs involve a kind of cross-validation: for example, quantitative data could provide a general understanding of the research subject, but subsequent qualitative data could refine these insights by also taking into account the opinions and perspectives of the participants (see for example Tashakkori and Teddlie, 2010).

Simplifying rules of thumb:

- Sequential mixed designs: the two data collections (qualitative and quantitative) occur one after the other.
- Nested mixed designs: a secondary data collection takes place *during* the main survey.

- Exploratory mixed designs: a preparatory data collection takes place *before* the main survey.
- Explanatory mixed designs: a secondary data collection takes place after the main survey. (Both exploratory and explanatory designs are necessarily sequential.)

Triangulation

The term "triangulation" refers to a method for locating, for example, an electronic signal. In order to determine the origin of the signal, it is possible to determine the compass direction from which it is coming from two locations. When a straight line from each measuring point in the direction of the signal is marked on a map, the two lines intersect. This locates the source of the signal. Along with this point (the location from which the signal was sent), the two locations from which the signal direction was detected form a triangle and so we speak of "triangulation." In the simplest sense, "triangulation" – when applied to the combination of qualitative and quantitative methods – means the use of two (or more) *separate* research studies (such as a qualitative and a quantitative study), both of which involve the same object of investigation but are otherwise independent of each other, to see where the two results intersect. The core of triangulation as a research method is that the two pieces of research are independent of each other. As Nastasi, Hitchcock, and Brown (2010, p. 307) put it, "complementary" designs are used by researchers to work out the overarching meaning of data.

Quantitative and qualitative data are collected and analysed quite separately and without any cross-methodological influence, the only link being that both data sets relate to the same research topic. The respective results can be compared with each other in order to understand the research subject authentically, credibly and usefully (see page 33 – "external" validity). In order to obtain the strongest possible triangulation effect, the two surveys should relate to the common research subject but otherwise be as independent of each other as possible and each provide its own dataset, which is analysed according to the standards of the respective approach. The crucial point, however, is that both approaches have equal status: the quantitative study is carried out quantitatively, the qualitative one qualitatively and neither is the servant of the other. Only in the overarching interpretation are they combined. In terms of the process of drawing conclusions, triangulation means that the results of the two approaches are combined to better "locate" the subject of study.

The following box shows a study (Kvale, 1995) referring to school grades in a Danish school. Two separate datasets were collected in order to be able to draw better informed

conclusions about an aspect of grading in school classrooms. As illustrated in the next section, this example is a very simple variant of triangulation.

In interviews, many of the children complained that grades were "unfair." They argued that grades mirror verbal participation in class activities to the same extent or even more strongly than knowledge of the material. This was unfair. Kvale triangulated the object of study by conducting a quantitative study with a new group of children, examining the null hypothesis that there was no connection between verbal participation and grades. From a sample of 30 schoolchildren, he collected data on how talkative the children were – he saw this as an indicator of the probable extent of their verbal participation in class – and correlated these values with the children's grades. This resulted in a statistically significant correlation coefficient of 0.65, which justified the rejection of the null hypothesis. Thus, the children were correct in the claim they made in the separate qualitative study.

Recent triangulation approaches: Nowadays it is customary to define triangulation in a more differentiated way. According to Hussy, Schreier and Echterhoff (2013) there are five different types of triangulation:

(1) *Methodological triangulation*: Data sets on the same research item, collected using different data-collection methods, are analysed separately and the results are compared in order to obtain a higher-level interpretation.

(2) *Data triangulation*: data sets on the same research object, which were collected using different methods in the same group of people, are analyzed separately and the results compared with each other to obtain an overarching interpretation.

(3) *Researcher triangulation*: data sets on the same research item, collected by different researchers using the same method, are analyzed separately and the results are compared to obtain an overall interpretation.

(4) *Theory triangulation*: A data set is interpreted on the basis of various theories.

(5) *Environmental* triangulation: The same data are collected in different environments, preferably with the same participants. "Environment" includes among other factors, time (e.g. at different times of day, on different dates or in different seasons of the year) and space (e.g. at two or more different places).

Simplifying rule of thumb:
Triangulation = Both data collections have equal status. They take place separately and the combination of information only takes place in a higher meta-interpretation.

Chapter 7: Analyzing qualitative data

The form of analysis most frequently used in qualitative research is *content analysis*. The aim of content analysis is to tease out the broad basic dimensions according to which the people providing the data (most often interview partners) make sense out of the object of study. One approach to content analysis is essentially *intuitive*: the researcher immerses him- or herself in the data *as a whole*, for instance by reading an entire interview protocol again and again until its broad underlying meaning becomes clear. This is called the "holistic-intuitive" approach in this book. The contrasting approach is to break down the contents of an interview into small groups of words (content units) that each contain a specific, concrete statement (deconstruction); I call this the "atomistic-logical" approach. Subsequently, these content units are re-combined by merging units with related content into groups, each group involving a single broad, general theme summarizing what is common to the content units on which it is based (reconstruction). Both approaches lead to a small number of general and abstract principles for understanding the dimensions of participants' constructions of the external world. Ultimately, theory – either *substantive* theory describing a particular setting or *higher order* theory describing a particular phenomenon – can be developed on the basis of these reconstructions, regardless of which approach was used to derive them.

Chapter Glossary

coding:	identifying statements in a narrative that are understandable, concrete, specific, and relevant to the particular object of study
convergence:	the point in the analysis of a string of narratives where addition of a new narrative yields no new ideas concerning the underlying meaning of the narratives
content unit:	a single word or small group of words containing a single, specific idea relevant to the object of study
deconstruction:	the breaking down of a narrative into a number of small highly specific statements which each mean something
emergent issue:	a topic introduced by respondents themselves which may not have been thought of at all by the researcher
meaning based analysis:	analysis aimed at working out the meaning of a narrative
parsimony:	reduction of a mass of data to the smallest possible number of broad dimensions with the least possible loss of information
reconstruction:	the re-combining of the specific statements obtained by deconstruction (see above) into broad general statements
tabula rasa approach:	commencing an analysis without imposing any structure *a priori*

Basic Principles of Qualitative Analysis

It is not possible to describe set procedures that can be applied in a fixed sequence in all qualitative analyses. As a result, it is necessary to focus initially on *principles of analysis* and resulting guidelines, rather than fixed techniques. The most common kind of analysis of qualitative data is content analysis. Later in this chapter, other forms of analysis will be discussed briefly, but because of its central importance in qualitative research content analysis will be given much greater emphasis than other approaches. As Kromrey (2009, p. 298) expressed it, content analysis is "… a research technique with which conclusions can be drawn on the basis of *any kind of data* [emphasis added] by means of systematic and objective analysis of its constituent elements."

A qualitative content analysis usually begin with a written document, for instance the protocol of an interview or the records of a period of participant observation, notes derived from observation of a specific case, a diary, a biography or, as in the example of Gray and Kunkel (2001), a book that had already been published by a completely different author. Particularly in the case of interviews, the document can be the transcript of a video or audio tape. In the remaining sections of this chapter, however, I will focus on interview transcripts and other texts such as letters or biographies – written records of people's constructions of reality. Despite this focus on interviews and the analysis of interview data, the basic principles spelled out below can easily be applied to other kinds of data. This means that the following sections can be regarded as a general introduction to qualitative content analysis. It is not possible in a basic introduction to present a standardized universal procedure that can be applied in a routine way to any and all kinds of data. Nonetheless, the following presentation is as specific and concrete as possible, although it will not present concrete and fixed standard techniques that can be mechanically re-applied in every situation, but will concentrate on *basic principles of content analysis*.

Discovering meaning: The purpose of qualitative data analysis is to discover the the *general abstract meaning* underlying a group of related statements – the gist of what the respondent wanted to say about the object of study. "Meaning" in this sense goes beyond the specific content of concrete individual statements. It is inferred from overlaps among numbers of specific individual statements. Thus, qualitative data analysis is essentially a procedure for discovering latent structures of meaning in overlapping statements. It answers the question: "What more general – but not directly observable – structures in the person's mind (such as attitudes, values, feelings, wishes, judgments, understandings of the world) generated this group of related specific statements?" The process of reducing a larger mass of

specific and concrete data to a smaller number of general and more abstract principles involves achieving *parsimony* (i.e., reduction of a mass of data to the smallest possible number of broad dimensions with the least possible loss of information).

The quantitative analogy to content analysis is factor analysis. This procedure also seeks to identify a smaller number of more complex "factors" that underlie correlations among specific statements (usually test or questionnaire items). Although it is mathematically not correct, the logical way to understand a factor is to view it as a broad psychological dimension that "causes" specific test items to correlate. The reduction of a person's 50 individual scores on a 50-item questionnaire to five more general factor scores is an example of the achievement of parsimony in quantitative research. Thus, analysing data yielded by procedures such as interviews has the same purpose as multivariate procedures that are used in quantitative analyses – such as factor analysis – even if the actual techniques are quite different. Factor analysis has the advantage, however, that it is based on numerical data and mathematical procedures for discovering the underlying structures, whereas content analysis largely depends on systematic application of the logical reasoning, insights and and intuitions of the researcher. As a result, factor analysis is more obviously reliable and objective according to strict definitions of those properties.

Achieving reliability and validity: As Bryman and Burgess (1994) pointed out, many writers on research methods regard the findings yielded by the analysis of narratives as much more interesting than those obtained by means of quantitative methods. However, conducting the analysis is a "problem," and qualitative data are "an attractive mess" (Bryman and Burgess citing Miles, 1979)! These authors focused on analysing qualitative data in ways which enhance the reliability and validity of analyses. The desire to do this is common to qualitative and quantitative studies. However, what constitutes reliability and validity differs in the two approaches. The first step in this chapter is thus to develop appropriate criteria that can be applied in qualitative research.

Altheide and Johnson (1998) equated reliability of qualitative research with *stability*. Data must be collected and analysed in a systematic and organized fashion that could be reproduced by another researcher if such a person wanted to do so. Lincoln and Guba (1985) referred to this property as *confirmability*. Turning to validity, Hammersley (1992) argued that what he called "an account" (a qualitative analysis) is valid if it displays *accuracy*. It must truly represent those features of the object of study that it set out to describe, interpret and explain. Altheide and Johnson made a similar point by adding *truthfulness* to accuracy.

Lincoln and Guba (1985) emphasized *credibility*, and Kvale (1995) added *usefulness*. Thus, for present purposes reliability and validity of qualitative studies can be summarised in terms of the criteria given in Table 7.1:

Table 7.1: Criteria of reliability and validity in qualitative studies

Property	Characteristic	Description
Reliability	Stability	The procedure could be reproduced by another researcher
	Confirmability	Another researcher would obtain similar results
Internal Validity	Accuracy	The representations of the object of study and the findings are not distorted
	Truthfulness	The project is presented without being biased by the researcher's preconceptions
External Validity	Credibility	The findings make sense to knowledgeable observers
	Usefulness	The practical implications of the findings are spelled out in a realistic way

How can an analysis of qualitative data be conducted in such a way as to enhance reliability and validity as they have just been defined?

Subjective nature of the analysis: As was pointed out above, in the case of quantitative analysis achieving parsimony (identifying the smallest number of broad dimensions that summarise the general meaning of a large number of separate narrower statements) is guided by mathematical principles. In qualitative research, by contrast, the analysis is "meaning based" (i.e., it aims at *working out the meaning of narratives* in a parsimonious way), and is guided by the general experience of the researcher, the particular definition of the object of study, personal hunches, naïve theories or beliefs about the object of study, insights derived from knowledge of the field, and similar factors (see the discussion in Chapter 3 of the qualities needed by qualitative researchers). Data analysis is thus more subjective in qualitative approaches. Because of this, the researcher is the principal instrument for conducting the analysis. As a result, it is common for the entire process of collecting and analysing the data to be carried out by a single researcher. None the less, as will be emphasized below, the fact that qualitative analyses are subjective does not mean that they are arbitrary or simply reflect the whims of the researcher. On the contrary, they are systematic and reproducible (i.e., they too are stable, although in a somewhat different way from quantitative studies).

Dynamic nature of the process of analysis: The next thing that must be emphasized is that qualitative data *analysis* has a dynamic or fluid nature similar to that of qualitative data collection. What the researcher does with and to the data often changes in the course of a project, as earlier phases of the analysis yield insights into the phenomenon being studied (the "object of study" – see earlier discussions). There is *a continuing interaction between researcher and data*. This means among other things that later stages of the data analysis may be altered as a result of earlier stages, while even selection of participants (sampling) in later stages of the project may be modified as a result of the initial stages of the data analysis.

***Focus on general dimensions*:** In social science studies employing qualitative research methods the data often consist of narratives by people discussing their lives, not infrequently problematic aspects of these lives. Examples already given include parents of autistic children, people struggling with the decision to emigrate, drivers experiencing annoyance at being required to use a seat belt, and so on. As has already been emphasized, the purpose of the analysis is to identify the *general* concepts or dimensions that such people use to make sense out of their situation and to relate these to both the object of study and to existing theory. To return to Kromrey (2009, p. 298), conclusions "go beyond the specific content of the particular document being analysed."

Unfortunately, students of psychology and education sometimes forget this when they analyse qualitative data, especially data focusing on problems or difficulties in life. Sometimes they find it difficult to differentiate between a narrative and a diagnostic interview. Instead of analysing with the purpose of expanding knowledge of a psychological or educational phenomenon, they may become bogged down in a clinical analysis of the particular case, concentrating on diagnosing and even making suggestions for necessary treatment. This is possibly a particular problem for clinically oriented researchers.

It is thus important to remember the following:

1. *Analysis of qualitative data is not a clinical procedure*. The purpose of the analysis is not to make a diagnosis of the particular case in order to ascertain whether the person needs therapy, or to recommend appropriate treatment. What the researcher is interested in are the subjective dimensions respondents use to describe their situation – how they structure their own internal picture of the world as they have experienced it.
2. *The task is to look for general dimensions*. The researcher's interest is the categories and concepts individual respondents use to structure their descriptions of their own situation. However, the ultimate task is not usually that

of describing and diagnosing a particular case but of placing the respondent's descriptions into a more general context. Thus, the dimensions identified should be general enough to be applied to other respondents (new "cases"): In other words, a dimension like "Self-Esteem" would be better than "Low Self-Esteem," or "Inferiority Complex." "Low Self-Esteem" and "Inferiority Complex" are specific descriptions of a particular case – by contrast, "Self-Esteem" is a general dimension on which it is possible for different people to be high, low, or in between. If a second case were analysed it might be found that the second person displayed high self-esteem. This could be accommodated by the dimension "Self-Esteem," but not by "Low Self-Esteem" or "Inferiority Complex." In any case, "low" and "high" are not dimensions along which people differ from each other, but positions on such a dimension.

3. *Specialists in a particular discipline conduct discipline-related analyses*. This means that researchers should use labels for the categories and concepts they identify when analysing narratives that come from their discipline. A label like, let us say, "Beautiful Appearance" is not a psychological or educational category but "Body Image" is (although the latter term is rather journalistic – see the comment below on avoiding everyday language).
4. *Research is a scientific endeavour*. Researchers should use formal, scholarly, scientific terms. To take an example, "Feelings" is psychological, but it is informal or everyday, more characteristic of journalistic discussions in popular publications than of scholarly reports. "Affect" or "Mood" would be better. In the same way, "Social Contacts" is too informal – "Interpersonal Relations" would be better.
5. *Analyses should focus on the essential*. The purpose of the analysis is not to try to interpret every single word in a narrative, but only to identify expressions that seem to say something of special importance. Indeed, a qualitative analysis may begin with a phase of summarizing and clarifying (see below) in which much of the narrative is discarded because it is meaningless or irrelevant to the object of study being investigated.

Despite the principles just spelled out, interviewers should not under any circumstances try to behave like a machine or turn themselves into a walking test instrument. In qualitative research, the purpose of interviews is to encourage interview partners to reveal their construction of reality (their internal picture of the world) *as openly and fully as*

possible. To achieve this, interviewers should make use of their full armoury of skills and abilities to lead interviews and persuade people to reveal their thoughts. This means that tact, empathy, insight and the like should be employed. However, interviewers should remember the purpose of research interviews: to obtain information about the interview partner's construction of reality *in order to learn about the object of study*, not in order to gain insight into the problems of the interview partner and establish a therapeutic relationship with him or her.

Computer-Assisted Content Analysis

The complexity of qualitative data, together with the desire to analyse them objectively raises the question of whether it might be possible to develop automated procedures for doing this, much the same as is already the case with quantitative data (e.g. SPSS and similar software packages). Such routinization or automatization of data analysis would add to the convincingness of the results of analyses by making them more objective, would reassure researchers that their findings are not just figments of their own imagination, and might also lead to a substantial reduction in the time and effort required for analysing qualitative data.

Computer-assisted analysis procedures hold out promise of (a) faster data coding, (b) a more detailed overview of internal relationships within the mass of data, (c) much more differentiated insights when building categories and concepts, (d) a formal structure for formulating the rules guiding the various steps in the analysis, and (e) more comprehensive and differentiated interpretation of the data. All of this is already possible with the help of paper and pencil and the sacrifice of enough time, but as Kuckartz (2007) put it, insistence on maintaining the old paper-and-pencil approach for analysing data is rather like insisting on writing a term paper or dissertation on an old-fashioned manual typewriter (with the assistance of an eraser) despite the existence of word-processing programs such as WORD. Nonetheless, it is important to remember that computer software *cannot do the thinking for you*, just as WORD cannot guarantee that what you write will get an A.

According to Bryman and Burgess (1994), already about 20 years ago a good dozen researchers had developed software which sought to automate qualitative data analysis (QDA). Weitzman (2000) listed numerous such software tools, including "Ethnograph" (software especially intended for use in ethnographic research but also applied in anthropology and sociology) and the amusingly named "NUD.IST 6" (***N****on-numerical* ***U****nstructured* ***D****ata.* ***I****ndexing,* ***S****earching and* ***T****heorizing*). Other well-known software of this kind includes "Atlas/ti," "Nvivo 2" and "HyperRESEARCH." A well-organized review of

several different software tools is to be found on the internet at the website http://onlineqda.hud.ac.uk/Which_software/index.php.

A comprehensive tool for analysing qualitative data is AQUAD 7 (***A****nalysis of* ***QUA****litative* ***D****ata*), developed by Huber (Huber & Gürtler, 2012). With this package it is possible to analyse not only written texts such as interview protocols, but also videotapes, audio recordings and even pictures, as long as the data are available in electronic form (e.g., avi, wav, mp3 or jpeg). Data of this kind can be analysed directly on the monitor screen and files deconstructed and interpreted. Systematic links among content units are indicated by means of mouse clicks, and "logical minimization" (reduction of the contents of the cases to the smallest possible set of concepts which still accurately reflect the participants' construction of reality) is carried out by a comparison of cases based on Boolean logic. An English-language version of AQUAD can be downloaded at *www.aquad.de/en/download/*

Another procedure for computer-assisted analysis of qualitative data is "GABEK" an acronym derived from its German name (***GA****nzheitliche* ***B****Ewältigung von* ***K****omplexität* [holistic processing of complexity]), which was developed by Zelger (see for instance Zelger, Raich, & Schober, 2008). This is a procedure for the analysis, processing and presentation of texts in normal language which is supported by the PC software tool "WinRelan" (Windows Relational Analysis). The procedure pulls together elements of related information widely distributed throughout a text to identify, for example, generalizations, concepts, and value systems. These are output in the form of hierarchically ordered text groups, graphical presentations of associations, cause and effect structures and similar forms of presentation. Information on this procedure can be found at https://www.gabek.com/en/. The software program MAXQDA is discussed in some detail by Kuckartz and Kuckartz (2002). This program is available for download as an app for Windows and Mac OS at http://www.maxqda.com. It can be used to analyse interview and focus group transcripts, reports, tables, surveys, literature, webpages, bibliographic data and web pages. Data can be input in the form of text, audio and video files, images, and twitter tweets. A feature of this software is that it also offers a facility for analyzing mixed methods data. This permits direct connection of standardized quantitative data with qualitative data.

Unfortunately, computer software is not in a position to take over the key tasks of qualitative data analysis such as gaining insights, formulating provisional hypotheses or recognising emergent themes and grasping their significance. Software cannot replace insight and intuition, the ability to interpret and accurately understand subjective or private figures of speech, the understanding of special concepts from specific disciplines, the ability to

recognize associations – especially unexpected or remote ones – with social science theories, or similar scientific tasks. Computer-assisted analysis of qualitative data also contains some hidden traps for the unwary: (a) researchers can cease "immersing themselves" in the data, (b) researchers can begin to favour numerical data over genuinely qualitative data (because they can then hand over the work requiring strict discipline to a computer), (c) data analyses can be directed less and less by intuitions and insights of researchers and as a result be led further and further away from the "real" life of human beings and thus lose authenticity. It can be asked whether a computer-assisted data analysis package would have identified the theme "Loss of confidence in management" in the airfreight case study (see pp. 45-46) or have recognized its key importance. Several of the chapters in Bryman and Burgess (1994) even took the pessimistic position that the special quality of qualitative data and the dynamic character of their analysis make the development of genuine automation of qualitative analysis impossible.

The Role of Theory in Qualitative Data Analysis

Strauss and Corbin (1998, p. 168) cited the following dictionary definition of theory: "A coherent group of general propositions used provisionally as a principle of explanation for a class of phenomena." I will adopt this definition in discussions both below and in the following chapter. Of interest in the present chapter is neither the use of *existing* theory as the starting point for setting up a research study, nor generation of *new* theory on the basis of the study's findings (this is discussed in Chapter 9). The focus in this section is on the role of *existing* theory in guiding or pre-structuring an analysis.

Finding emergent issues: In fact, analysis can proceed without any reference to theory at all, via what might be called the *tabula rasa* approach. This involves simply seeing what emerges from the respondents' statements without imposing any structure *a priori*, letting the chips fall where they may, so to speak. The advantage of *tabula rasa* approaches is that they do not specify in advance which contents will receive the main focus. As a result they make it possible for the analysis to take account of "emergent issues" (Ritchie, & Spencer, 1994, p. 180). These are introduced by the respondents themselves and may not have been thought of at all by the researcher. Such issues are very important because, as Elliott (1999, p. 252) put it, "qualitative researchers hope *to discover something new and unexpected* [emphasis added]." The incorporation of emergent issues into the analysis is an example of the dynamic nature of qualitative analysis that was described above (e.g. pp. 45-46).

One way of looking for emergent issues has been suggested by Ritchie and Spencer (1994). The researcher starts the analysis without any pre-formulated expectations of what will emerge, or at least by behaving as though there are no pre-existing expectations, since it is hard to believe that a typical researcher would not have given any thought whatsoever to possible results. The first step is an initial phase of "familiarization," in which the researcher gains an overview of the range and diversity of the contents of the narrative via a process of "immersion in the data" (p. 178). This may be done one case at a time or with several or all cases. During familiarization the narrative or the narratives are read through several times, in order to develop a feel for the contents. On the basis of this familiarization an understanding of the ideas contained in the narrative(s) is developed. Those ideas that are relevant to the object of study are identified and then used to structure the content analysis that follows. Which ideas are selected as the framework for the more structured analysis that follows familiarization depends upon the special interests of the researcher.

Theory guided analysis: Although as has just been pointed out, an analysis can be conducted without an initial theory, qualitative analyses can also be guided and structured by existing theory. One way of doing this is to define in advance the ideas that are expected to emerge and check in the analysis whether they did actually appear, or in what form they appeared. The analysis then takes on some of the characteristics of hypothesis testing. Restricting the analysis to issues that theory suggests ought to emerge provides a preliminary structure and goes some way towards routinizing the analysis. However, it has the disadvantage that emergent issues (see above) would be ignored.

Theory-guided analyses need not be as strict as the form just outlined. As Strauss and Corbin (1998) pointed out, the initial theory may be not existing formal theory as it is found in the relevant literature but the researcher's own intuitive or naïve theory emerging from hunches or personal experience with the phenomenon in question. Well-qualified researchers who possess deep knowledge and substantial experience of the phenomenon under investigation are particularly well placed to generate their own theory because of

- their training,
- their familiarity with the relevant literature,
- their knowledge of prior research or even their own earlier investigations,
- their specialized disciplinary and professional knowledge.

They are "theoretically sensitized" (Strauss & Corbin, 1998, p. 166) and are thus likely to notice relationships and connections that might not be apparent to people without the necessary expertize.

Choosing a theoretical orientation: Researchers may choose a particular theoretical approach (e.g., psychoanalytic, social psychological, learning theory, critical events theory) because they have a high level of familiarity with it or even special expertise, or because it fits well with their own interests. An approach may also seem to the researcher to be especially useful for studying a particular object of study in a particular way. To take an example, in the study of German migrants to Australia already mentioned a psychoanalytic orientation was very useful because (a) psychoanalysis emphasizes "hidden" motivation, precisely the issue on which the study came to focus in the course of the analysis; (b) psychoanalysis includes a developmental model and thus offers leads on how people interested in migrating got to be like that; (c) psychoanalysis has its own approach to therapy and thus suggests procedures for counselling people experiencing psychological distress in connection with migration. The freedom to choose the theoretical orientation raises the problem of apparent arbitrariness and thus lack of rigour. For this reason, it is important to show that there were systematic, scientific reasons for adopting a particular approach, i.e., that a particular tool was chosen because it was precisely the one needed for the job in hand.

The Process of Qualitative Analysis

Content analysis can be regarded as a process of moving from specific, concrete, everyday statements – that apply only to a specific respondent (i.e. a single "case") – towards increasingly "scientific" or "discipline-based" statements, that become ever more abstract and general and are capable of covering many cases, including some who may stand at opposite ends of a continuous dimension. For instance, statements such as "I am tormented by doubt about my own competence," and "I feel that I can conquer any task" both refer to the concept 'self-esteem," whereas the concepts "low self-esteem" or "high self-esteem" would be too specific and would not cover both cases. This movement towards a smaller number of increasingly abstract and general underlying principles may be carried out inductively or deductively.

Inductive vs. deductive analysis: In principle there are two ways of approaching a qualitative content analysis: the inductive approach and the deductive approach.

1. A "pure" *inductive analysis* begins, at least in theory, *without any pre-existing expectations whatsoever*, i.e., without any theory. Initially, the data are regarded as a diffuse, unorganized mass of separate bits of information, in which any one idea deserves as much attention as any other. The researcher's task is to dig out overarching topics or themes that are embedded in the data. The question that has to be answered is, "What broad, topics are contained in these data?" As a rule, it is possible to identify such originally-hidden topics;

after all, people do not usually talk at random when discussing things they know a lot about (i.e., about which they possess narrative competence). Such topics are said to "emerge."

After reading two or three sets of data (for instance interview protocols), it is usually possible for researchers to identify a relatively small number of themes that seem interesting to them. Topics are "interesting" when they cast light on some question that a researcher wishes to pursue because it is relevant, useful, informative and so on (qualities connected with external validity). Typically, the inductive approach makes it possible to identify a small number of more general issues in the statements interview partners make in the course of discussing the aspects of their construction of reality covered in the interview (such as the theme of trust in senior management, or lack thereof, that emerged in the freight loader case study). Once a general principle has been identified, the researcher can *return to earlier protocols* to check whether and how this issue emerged in them, and can also focus on the issue just identified when reading additional protocols.

2. The *deductive approach*, by contrast, *begins with focused expectations*, usually derived from existing theory. The general principle already exists. However, the researcher's task is not to prove that there are significant differences between certain groups (such as an experimental and a control group) in how much of something they have (i.e., quantitative differences), but in the way some aspect of the interview partners' constructions of reality manifests itself (i.e., qualitative differences). This could involve questions like, "Is the phenomenon present at all in my interview partners?" "What particular form(s) does it take in this group of people?" "What is its role in their overall construction of reality?" "Where does it come from?" or "How does it interact with other factors?"

***Coding the raw data*:** The first practical step in a qualitative analysis is often called *coding*. Coding involves identifying the fragments in a narrative that carry individual pieces of information about the participant's construction of the object of study. Coding is necessary because the "raw" text of a narrative often contains a great deal of material that cannot be used in a particular study, especially when the text is an interview protocol. This is because the material is (a) meaningless or unintelligible (for instance expressions such as "Ah," "You know," or "Mmmm?"), (b) repetitious (repetition may indicate the strength of a participant's views or the importance of an issue for that person, so that it may well be important, but it does not introduce new themes), or (c) irrelevant ("irrelevant" in the present context means that a statement does not refer to the specific object of study; irrelevant content need not be trivial – it may be very important to the respondent and fascinating to the interviewer, but simply not informative in the specific context). It is possible to distinguish between

‘substantive” coding, which has the purpose of identifying concrete references to the object of study (i.e., identifying what I will later call “content units”), and “theoretical” or “higher order” coding, which involves finding statements in an interview which refer to discipline-based concepts such as motivation, coping strategies, self-image, and the like.

Coding in this sense is quite different from coding in quantitative studies, where the term is usually used to refer to converting to numerical form answers to standardized questions such as “What was the highest level of schooling you reached?” or “To what extent do you agree with the statement, ‘Children should always obey their parents’?”. Questions of this kind are very frequently items from a questionnaire. In quantitative research the answers to the question about level of schooling might be coded as follows: incomplete elementary school = 1, completed elementary school = 2, incomplete secondary education = 3, completed secondary education = 4, incomplete tertiary education = 5, completed tertiary education = 6, postgraduate education = 7. Responses to the question about children’s obedience might be coded in the following way: “I disagree completely” = 1, “I disagree to some extent” = 2, “I cannot make up my mind” = 3, “I agree somewhat” = 5, “I agree strongly” = 5. The purpose of coding in this sense is often to convert relatively subjective material to objective forms (i.e., numbers). In qualitative analysis, by contrast, the purpose is *to grasp the essence of what people meant* by their subjective comments or answers.

Preliminary steps in coding data: Mayring (1983) outlined a number of initial steps in the actual conduct of a content analysis. For the purposes of this book I will focus on two of these: (a) *summarizing* and (b) *clarifying*. Summarizing involves eliminating irrelevant material from a transcript or other text that is being analysed (e.g., hesitations, repetitions, reformulations, false starts, abandoned statements, etc). Clarifying requires restating the text in a way that makes its meaning unambiguous, without changing the respondent’s meaning. Respondents often use slang or special terms that have a particular meaning to them personally or to specialists such as other workers in the same area. They may also use metaphors or other indirect forms of expression. Clarifying often involves turning slang into standard language. It sometimes requires the use of a dictionary, or consultation with a person who is thoroughly familiar with specialized terminology. When such aids do not resolve the respondent’s meaning, careful reading of the text and placing of the difficult content unit in context will often succeed. Petersen (1989) gave a helpful example in her MA thesis on hobby authors. One respondent referred to the role in her creativity of a “fantasy cage.” This term was unknown to the researcher and is not found in dictionaries. However, reading of the relevant statement in its special context made it plain that what the participant was referring

to was fear of expressing her own ideas to other people – she felt as though her fantasies were locked away in a cage. Summarizing and clarifying are practical steps that are frequently necessary before the strategies outlined earlier in this chapter can even commence. A "clean" text, containing intelligible, relevant statements is now available.

Working out the Meaning of a Text

The next step is to work out the more general meaning of this text. There are two ways of doing this, which are referred to here as the "holistic-intuitive" approach and the "atomistic-logical" approach.

The holistic-intuitive approach: When using this approach the researcher reads the first text, possibly several times, until he or she is ready and able to propose a speculative interpretation of the contents of the text *as a whole*. A second text is then read and the original interpretation revised as necessary, in order to develop a corrected interpretation which is true for both texts. The procedure is repeated with additional protocols and the interpretation revised so that it applies to all texts. This can involve adding new ideas or deepening, differentiating and clarifying the existing interpretation. The procedure is repeated with further protocols, one after the other, and the interpretation "corrected" step by step, until the addition of further new protocols leads either to no further change in the interpretation or to only small, insignificant changes. At this point what I call "convergence" has been reached: Additional information brings such minor improvements that, applying the law of parsimony, no new cases are needed. Such an analysis is obviously subjective.

***The atomistic-logical approach*:** This approach does not focus on the text as a whole, and does not depend primarily on the researcher's intuition. After clarification and cleaning of the text (see earlier sections), the narrative it contains is broken down into small units consisting of brief statements (groups of related words, incomplete sentences, etc). These statements are referred to in this book as *content units* – each one contains a *single* idea. These content units are the building blocks of which the original narrative consisted. As is explained in more detail in the next section, content units can be identified relatively objectively according to logical rules specified by the researcher and stated in writing in a formal way. They are not the result of intuitions of the researcher, but are physically and literally present in the protocol; they should not be "interpreted into" the text. As long as the rules for identifying content units are clear, concrete, specific and easily understandable, it can be expected that a second researcher would deconstruct a given text into the same content units as the first. In other words *reliability* is enhanced.

Once the content units have been "revealed" or "discovered," they are combined into groups of units with related content, and subsequently into groups of groups (see below). In this way, a new structure is built out of the content of the original text. This approach involves the systematic *deconstruction* and subsequent *reconstruction* of the original narrative. When the point is reached where the deconstruction of a new protocol yields no new content units or only content units that add nothing to the existing reconstruction, convergence has been achieved and parsimony requires that no further protocols are needed. The atomistic approach is much more systematic and objective than an approach based on intuitions: Summing it all up, the holistic-intuitive approach leads to "felt" interpretations, whereas the atomistic-logical approach yields objectively worked out insights.

Finding content units: When identifying content units, the following should be remembered:

1. Content units need not be complete sentences. They are often grammatically incorrect fragments couched in everyday language.
2. They are usually brief, possibly only a single word. Aim at units that are as brief as possible (up to 3 or 4 words), and avoid fragments of more than 7 or 8 words, except in unusual circumstances (e.g., a respondent says something longer that captures a complex idea with exceptional eloquence and clarity).
3. Focus as much as possible on statements that are specific and concrete rather than vague or general.
4. At least in the first run through a narrative, eliminate from consideration meaningless, repetitious or irrelevant material fairly ruthlessly. Concentrate on contents that are understandable and relevant to your object of study. Your task is to investigate an object of study, not to summarise everything the respondent thinks about everything!
5. Be conscious of the reasons for excluding particular statements from the analysis (e.g., the statement is too general or does not refer to the object of study), and be able to state these if asked. Give examples in your thesis or dissertation.
6. Do not "over-interpret" respondents' statements. This happens, for instance, when the researcher reads into a statement a meaning that may well have been in the respondent's mind, but is not actually in the

> statement in question. In the example below of an interview on a social worker's feelings about her job, the respondent commented that residents of refugee hostels "don't seem to make much progress." It would be possible to argue that the statement referred to a sense of disappointment or frustration. However, as it stands the statement is not about the respondent's feelings, in the way that, "*I am frustrated* by their lack of progress," would be.

Theoretical sampling: Glaser and Strauss also proposed a further phase, which is not absolutely necessary for grounded theory but is sometimes employed – the phase of *theoretical sampling*. Theoretical sampling occurs when, after the theory has been developed and substantiated by several consecutive cases, further cases are deliberately selected to cast light on this theory. There is no pretence of randomness in selecting additional cases. On the contrary, there is a deliberate focus on cases that have special potential for expanding, clarifying or refining the new theory. This means that the cases studied in the phase of theoretical sampling are very **unlikely** to contradict the explanations already formulated: Indeed, they are selected because it is anticipated that they will support these explanations! Their function is not to correct the analysis that has been carried out, but to elaborate and clarify it. Theoretical sampling is more or less the opposite of random sampling, a crucial procedure in experimental designs and therefore of great importance in typical quantitative studies.

Sensitizing concepts: Both analytic induction and grounded theory can be seen as procedures for using empirical evidence to develop theory. They give this process a certain rigor. Fundamentally, the end product of the research is theory. However, Blumer (1969) argued that theory has no purpose except to make the observed world easier to understand, i.e., theory is valuable, but only as an instrument for achieving better understanding of concrete, empirical events. This means that what is needed from an analysis is broad, general statements (i.e., theory) that alert people about what to look for when trying to understand the world around them. The theory "sensitizes" the researcher to certain kinds of material. This idea is at the core of the concept of "sensitizing concepts." This discussion might seem to belong to earlier sections on the role of theory in beginning an analysis. However, sensitizing theory does not exist prior to the commencement of the analysis and is developed during the analysis (i.e., it is a result). After a theory of this kind has *emerged* in this phase it can "guide" the balance of the analysis: the researcher is sensitized for data that are compatible with the newly-formulated theory, and looks specifically for such data – his or her interest is

directed by the sensitizing concept(s). Once such theory exists it should, according to Blumer, be checked out in new situations involving different objects of interest in order to establish its generality and refine and test it. One way of doing this would be to observe in which real life situations it applies, what special forms it takes in different settings, and so on.

Analytic Induction and Grounded Theory

Analytic induction: Analytic induction is the classical example of the holistic-intuitive approach. The initial founding of analytic induction is usually attributed to Znaniecki (1935). It is a process of identifying the abstract elements of narratives and using these to generalize to other cases or situations. The practical steps involved in this approach are as follows:

1. The problem on which research is to be conducted is identified at the beginning of the project, even if initially in a fairly rough, approximate way (e.g., problems of families with children suffering emotional disturbances, failure of drivers to use seatbelts). This is what is called the "object of study." The sources from which ideas for defining the research focus (the object of study) can be obtained may be formal, such as previous research, or subjective, such as personal experience or intuitions.
2. Data on the problem such as interview protocols or written narratives are collected with a number of appropriate people (e.g., parents of emotionally disturbed children, drivers fined for failure to fasten their seat belts – people who possess narrative competence).
3. The researcher reads the narratives carefully, several times if necessary, in order to become thoroughly familiar with their contents. This is the process of "immersion" in the protocol.
4. On the basis of this intense reading a working hypothesis about the phenomenon under study is formed (e.g., "Parents experience feelings of guilt about their children's disabilities," or "Drivers refuse to wear seatbelts because they regard themselves as fighting for freedom").
5. Further narratives are read with new respondents from the group already studied.
6. These data are examined in order to see how well they fit the working hypothesis.
7. Wherever a discrepancy occurs between the working hypothesis and the new data, the hypothesis is revised until it fits all cases studied to date (e.g., "Parents *who receive no psychological support via doctors, counsellors, clergymen or similar*

people experience feelings of guilt," or "*Authoritarian* drivers refuse to wear seat belts because they regard themselves as fighting for freedom").

8. Steps 5-7 are repeated (i.e., further new narratives are read and used to test the working hypothesis, which is revised if necessary).
9. When new data reveal no need for any further revision of the working hypothesis the procedure comes to a halt; the latest version of the working hypothesis becomes the finding of the study.

It is important to note that the analytic induction procedure just outlined

- involves an idealized approach that usually cannot be realized in practice. To reach a point where all additional cases fitted perfectly with the existing hypothesis would usually require either analysing a very large number of cases or formulating the hypothesis in an extremely complicated or an extremely general form, or both of these. In practice, it would be more common to stop after a relatively small number of iterations of steps 5-7. A practical reason for stopping would be time constraints – students normally want to complete their thesis in the foreseeable future, and cannot budget more than a few months for data analysis! The extent to which the latest version of the working hypothesis still fails to fit new cases then forms part of the discussion in the thesis;
- does not separate data collection and analysis – in the way that quantitative studies usually do – into two discrete phases, the first (data collection) being completed before the second (data analysis) commences. On the contrary, the two aspects alternate. This means that in writing up research in a thesis it may not be possible to describe "Instruments," "Procedure," "Data Analysis," and "Findings" in neatly separated chapters. (See Chapters 8 and 9 for a discussion of writing a qualitative thesis.) It is also common for steps 2 and 3 to consist initially of a kind of pilot study in which the object of study is refined, the ability of respondents to make sense of the situation or their willingness to reveal themselves confirmed (or not), questions or cues revised or clarified, and so on. Thus, there may be a cycle with steps 2 and 3 being repeated at least once, and possibly several times;
- does not start with a strict hypothesis. On the contrary, the hypothesis emerges during the process of data collection and analysis. Furthermore, the final result of the investigation is itself more in the nature of a hypothesis or at best a

> working framework for describing the phenomenon under investigation. Miles and Huberman (1994) suggested a compromise, which pre-structures the process of data reduction from the beginning, but does not involve using the analysis to test a completely worked out theory. The researcher may state a general *frame of orientation* before commencing content analysis and then look for content units referring to this orientation.

Grounded theory: It is apparent from what has just been written that analytic induction has a major weakness in comparison with quantitative methods: It does not yield clear data that are capable of "proving" a hypothesis such as "Parents of children with multiple handicaps who receive counselling experience significantly less guilt than uncounselled parents," or "Drivers with an authoritarian personality structure reject the use of seatbelts significantly more often than other drivers." As a result, its theoretical statements lack the apparent objectivity that is characteristic of quantitative methods. A procedure that goes some way to dealing with this problem is *grounded theory*, first described by Glaser and Strauss (1967). Grounded theory is the prototypical atomistic-logical procedure. Grounded theory involves the following steps:

1. The problem on which research is to be conducted is identified at the beginning of the project, even if initially in a fairly rough, approximate way (e.g., problems of families with children suffering emotional disturbances or failure of drivers to use seatbelts). This is what I call the "object of study." The sources from which ideas for defining the research focus (the object of study) can be obtained may be formal, such as previous research, or subjective, such as personal experience or intuitions. This topic was discussed in more detail on pp. 49-51.
2. Data on the problem such as interview protocols or written narratives are collected with a number of appropriate people (e.g., parents of emotionally disturbed children, drivers fined for failure to fasten their seat belts).
3. The researcher breaks down the text into its building blocks by identifying content units.
4. The researcher combines content units with similar content into "categories" (e.g., "guilt feelings," or "aggression," categories that were identified in the study of parents of children with emotional disturbances).
5. On the basis of either a re-examination of the existing data or of the analysis of new data (or both), the researcher clarifies the content of these categories and makes their definition more concrete in order to understand their content and their

importance for the participants better. Glaser and Strauss call this process 'saturation."

6. After saturation of the categories the researcher builds more general overarching *concepts*, which typically combine several of the earlier more specific categories (for instance, "extra-punitive vs. intra-punitive reaction" as a combination and generalization of the two categories given above in point 3). These overarching categories should be abstract and should involve a scientific way of looking at the object of study, not an everyday or journalistic way of looking at it. An example can be taken from a study of hobby authors which is described in greater detail later (see Chapter 9). In this study the categories "problems getting started," "goals," and "need for recognition" were combined to form the overarching concept "Motivation."
7. The researcher looks for connections among concepts and formulates theories about such connections. For instance, in the hobby authors study just mentioned it was noted that there appeared to be a connection between the concepts "Motivation" and "Interpersonal Relations."
8. The hypothesis formulated in step 7 can then be linked up with existing theories to yield a new or modified theory. In the hobby authors study, for instance, the researcher established links with Maslow's hierarchical model of motivation, which distinguishes among other things between survival needs and needs for status and recognition, and concluded that the motivation to write satisfies needs at more than one level. To turn to other earlier examples, data on parents of emotionally disturbed children might be related to theory on locus of control, data on migration to theories of personality development.

Where step 8 is achieved, it is possible to speak of "grounded theory." The theory formulated in steps 6 and 7 may then be tested by separate empirical studies, even quantitative studies.

Both analytic induction and grounded theory make use of the *method of constant comparisons*. Cases are analysed one at a time (starting of course with the first one), and as each new case becomes available it is analysed and its results compared with the existing analysis, possibly causing changes in this analysis, or even causing changes in the data collection itself. This process of case by case comparison is kept up until the addition of a new case leads to no changes. In quantitative research progressing in this way would be regarded as close to cheating: quantitative researchers would usually not commence the data analysis until all data had been collected, on the grounds that knowledge about how the

analysis was proceeding could easily influence the new data. Suppose, for instance, that a researcher knew that it was important for the fate of the null hypothesis that the next case ('subject") failed a particular test. Either consciously or unconsciously the researcher might influence the outcome of the test in order to obtain the desired result. However, in the constant comparative method phase of content analysis a case-by-case analysis is necessary.

Analytic induction and grounded theory – a comparison: The most striking difference between analytic induction and grounded theory is that analytic induction involves forming a theory on the basis of a general impression of the narrative being studied, and seems to depend largely on intuition in the initial stages. It does not seem to be as purposeful, systematic and organized as the grounded theory approach, mainly because it does not break down the narrative into specified, separate elements, as does grounded theory. It may be difficult to explain in more or less objective terms what aspects of a narrative led to the explanatory hypothesis developed in analytic induction, or how clearly the hypothesis fits new data. By contrast, through the identification of content units grounded theory has a more objective basis. The content units (building blocks) are almost like numerical data: they are discreet, clearly defined elements which are recognizable to any observer and are at least quasi-objective, with the result that people such as the readers of the final report usually find it easier to understand and accept the process of building categories and concepts. In other words, grounded theory leads to well-founded concepts that have a strong claim to reliability and validity. External observers usually have little difficulty in seeing how categories were formed as well as being able to see the logic of the way they are linked to obtain super-ordinate concepts. In other words, grounded theory leads to *grounded* concepts that seem to be more obviously *reliable* and *valid*, whereas those in analytic induction are more subjective.

In the later stages, analytic induction relies on negative cases for the refinement of the theory that has already been formed – the hypothesis already formed is only altered if a new case does not fit. This procedure follows the traditional approach of quantitative research, according to which a hypothesis can never be proved, only disproved. It is not the supporting case that aids the development of theory, but the negative one. This is a strength of analytic induction. If the cases studied – that have all been shown to fit the theory (otherwise it would have been altered) – are large in number or cover the range of cases that exists in real life (i.e., in quantitative terms if the sample is "representative"), a certain degree of "proof" of the generalizability of the theory exists. However, this point in some ways contradicts the core of qualitative methods, and also raises issues of sampling that are more typical of quantitative

methods. By contrast, in grounded theory the emphasis on systematic – even hierarchically organized – steps permits a more rigorous approach to analysing qualitative data. The process begins with specific, narrow concrete statements (content units) that are recognizable to any observer, and proceeds in a goal-directed way to the level of abstract and general formulations. It involves a systematic progression from the narrow and specific to the broad and general, and not just a vague "immersion" in the data in the hope of being inspired by them.

Bryman and Burgess (1994) discussed the extent to which grounded theory is actually applied in everyday research practice. Their comments are revealing and helpful for novice researchers, even bringing a sense of relief. To put it briefly, they express their doubt that grounded theory – and by implication analytic induction – are ever really fully applied in the strict way described above. Grounded theory's importance is probably more because it reminds researchers of the need for an interplay between description and theory than because it is applied literally. It also involves a systematic even hierarchical set of steps commencing at the level of specific, narrow and concrete statements and proceeding purposefully to the level of abstract and general formulations, even if the steps are not followed exactly. In other words, it encourages a rigorous approach to the process of induction – movement from the small and particular to the broad and general – rather than a vague "soaking" in the data in the expectation of receiving inspiration.

Other Ways of Analysing Qualitative Data

Although they dominate analysis of qualitative data, analytic induction and grounded theory are not the only approaches that exist: There are other ways of working out the meaning of qualitative data. Three of these are outlined in the following section.

The hermeneutic approach: The hermeneutic approach is most frequently used for the analysis of biographical narratives. Kromrey (2009, p. 300) compared it with the literary analysis of a text, an exercise that may well be familiar to readers in their memories of literature lessons at school. The purpose of a hermeneutic analysis is to grasp what the author of a text wanted to say. A hermeneutic analysis has four central characteristics. According to Madison (1988) it must display:

- *coherence*: the interpretation must be unified and free of contradictions or inconsistencies;
- *comprehensiveness*: the meaning of the text *as a whole* must be considered;
- *penetration*: "hidden" ideas that may have been expressed indirectly must also

be considered;

- *contextuality* (the analysis should take account of the sociocultural context in which the narrative was constructed, and look for links to the situation beyond the text itself).

The first crucial point is that the totality of the text must be considered.[1] Like the links of a chain, the parts of a text acquire their meaning through their place in the whole. A second principle that is particularly emphasized in the hermeneutic approach is the necessity for the researcher/interpreter to be aware of his or her own "biases." These biases are essential in that they provide "fields of meaning" and allow an initial or preliminary understanding of any new situation (Bleicher, 1980). (This initial understanding derives from researchers' constructions of their own experience, and is therefore, among other things, socially constructed.) However, it is the researchers' *awareness* of their own biases that enables them to distinguish between initial impressions and new meanings that arise from the text. This point is reminiscent of the view that interviewers should not try to eliminate social construction, but should take account of it.

The hermeneutic emphasis upon the analysis of the "parts" and the "whole" means that the interpreter of a text should pay particular attention to the narrative sequence as it develops during the course of narration. In other words, it is important to consider how what is described during the initial part of the narrative is related to what is described in later sections. The specific details of how this narrative sequence is considered varies from study to study, according to the needs of the particular research question. One example of the way the parts acquire additional meaning through their relationship to the whole is to be seen when discrepancies or contradictions occur from one part of the narrative to another.

As has just been emphasized, the hermeneutic approach requires considering the individual parts in order to understand the whole. However, the parts can be looked at in many different ways. In fact, psychologists who engage in hermeneutically oriented qualitative research often note that the process of qualitative research does not follow a prescribed formula, is based upon the specifics of each research project, and is dependent upon the creative, imaginative and empathic resources of the researcher. Bruner (1990), for example, in presenting a narrative analysis of texts from the interviews with six members of the same family, indicated that the process was based on principles of literary and discourse analysis (see also the reference to Kromrey above). Freeman (1993) similarly noted that the process of hermeneutically oriented qualitative analysis of autobiographical narratives (including those elicited during the course of an interview), involves various aspects of

literary analysis. Freeman explained his approach in the following way: “When I sit down with the text of a life history before me and try to make sense of what it is that’s being said – in line with the specific questions I bring to it – I had better be willing to exercise my own imagination” (Freeman, 1993, p. 225). The results of a hermeneutic analysis are thus, almost of necessity, strongly linked to the particular researcher, which raises the problem not only of reliability but also of both internal and external validity. This problem of qualitative data analysis will be discussed more fully in later sections.

Critical incidents analysis: Critical incidents analysis can be used with any of the kinds of data outlined in earlier sections, although biographical narratives are especially appropriate. The critical incidents approach identifies specific concrete incidents that interview partners regard as of particular significance in their lives. These must be concrete incidents that the interview partners personally experienced in their lives, not for instance vague opinions or feelings. A critical incident can be a turning point in the respondent’s life in connection with family, health, loss, sexuality, intellectual or spiritual life, money, work, success or failure, and so on. As with all qualitative analyses, it is possible to start by defining in advance the kind of incident that is to be investigated, on the basis of existing theory or because of a particular interest in a pre-defined area. This could be done by searching protocols for incidents related to, let us say, school. However, it is also possible to allow the object of study to emerge in the course of the investigation.

It is also possible to use the critical incidents approach as a method for *collecting* data. This can be done in an “open” way – in this case interview partners are simply asked to describe critical experiences in their lives in a general way. The interview could begin with: “Please tell me about good or bad experiences in your life.” It is also possible to conduct a structured interview, for instance by asking about a certain kind of critical incident. The Novalis study discussed on page 93 is a good example of an analysis focused on a specific kind of critical incident (death of a loved one), although the data were not interview protocols. The theme of death had already been specified prior to the commencement of the study, because it was already known that this topic played a special role in Novalis’s poetry. The way Novalis dealt with the theme of death in his poems was linked to real deaths in his life. It is also conceivable that at the beginning of the project a critical incidents approach was not foreseen at all, and that the researcher only recognized the usefulness of this approach for understanding the object of study in the course of the investigation.

Comparative analysis: In a comparative analysis cases are directly compared with each other in order to identify differences between people in the way that a general way of

constructing reality manifests itself. Contrasts between different cases may make special characteristics of the two cases more readly apparent. This can greatly facilitate the clarification of interview protocols and assist in the building of concepts. Systematic differences between two (or more) interview partners in the way they construct reality may also indicate the existence of "polarities" which differ from participant to participant and reveal contrasting "orientation patterns." These can be linked to individual people (orientation figures): For instance two divorced women may construct the process of divorce in highly contrasting ways, the one as a happy release, the other as a personal failure. This contrast may help to understand the general process of building and dissolving personal relationships better (remember that the purpose of qualitative research is not to "diagnose" specific participants and recommend treatment, but to understand some more general phenomenon better). Orientation patterns may also be linked to areas of life (for instance, an orientation to work as a source of principles for constructing reality vs. an orientation to home life).

***Objective hermeneutics*:** Hermeneutics is based on working out the overall meaning of a narrative (see above). This is done by carrying out a "reading" of a narrative, the term "reading" referring not to the technical process of perceiving written symbols on a page and turning them into words, as you are doing at this moment, but of assigning meaning in much the same way as we "read" another person's behaviour. It is thus an intuitive-holistic procedure. In the case of objective hermeneutics, the analysis involves *a team of readers*, not a single researcher as is usually the case. Each team member initially develops his or her own "reading" of the first narrative. The team members then discuss the different readings and work out rules for how to understand the narrative, what to focus on, and so on. Members then read the next narrative with the benefit of the rules that have just been worked out, if necessary (as is usually the case) modifying the earlier readings, as well as modifying or adding to the rules of interpretation. A third narrative is then read and its implications for the initial alternative "readings" discussed in the group, possibly eliminating some, which are seen to be obviously false, and modifying others, while the rules of interpretation are also modified on the basis of the additional experience gained with the third case. This procedure (sequential analysis of narratives) is continued until consensus is reached that no more modifications of the readings are needed – there is, in effect, now only a single reading, on which the team agrees. Although it is essentially holistic-intuitive in nature, this approach has the advantage that the rules of analysis are worked out in a transparent manner and stated in a relatively objective way. It is clear that they are not just fantasies of the researcher.

***Framework analysis*:** Framework analysis is an atomistic-logical procedure based on the identification of content units and the development of categories and concepts as already explained above. However, the broadest and most general categories (the "concepts") are not psychological dimension such as "Motivation" or "Defence mechanisms," but are themes or topics from a person's life. In psychological research such themes might be "Joblessness," "Emigration," or "Raising a handicapped child." Less general categories (subtopics) are then identified and assigned to a specific theme: in the example of the theme of "Joblessness" one relevant subtopic might be "Failure," another "Promotion policy." Results of a framework analysis are typically presented in the form of a matrix for each theme (hence the label "framework"), in which the rows are individual participants and the columns subtopics. Each cell then contains content units defining the particular subtopic for a particular participant. It is then possible to examine each column in order to see how the subtopic in question emerges for different respondents and to identify patterns, contradictions, relationships, and so on.

***Types and patterns analysis*:** An approach that has some overlaps with Framework Analysis involves identifying types and patterns. It is often possible to identify consistencies in a group of protocols which can be regarded as patterns or types. There are at least four forms of these::

- *Types of people* within the group of respondents,
- *Types of reaction* to the object of study,
- *Differing ways of dealing* with specific reactions,
- *Types of situation* which provoke a specific reation.

In the airfreight case study already described (e.g., p. 46-47), types could clearly be identified. For example, two types of loading personnel could be seen: those who were relatively satisfied with the level of competence of their managers and those who were clearly dissatisfied. The first type were almost all newcomers to the job, young, and less well trained, while the second type consisted of workers who were older, more experienced on the job, better qualified and strongly established with the company; on the one hand, beginners versus old hands. After identifying these two types, the analysis was able to focus on a new question: What were managers doing which drove away well-established employees but not beginners?

It was also possible to identify and focus on not types of person but types of negative reaction (e.g., aggression versus apathy). The aggressive type of reaction not infrequently involved leaving the job out of the desire to "show them a thing or two." The contrasting type of negative reaction involved a feeling of isolation and powerlessness, and resigning was an

act of despair or burnout. Such contrasting reactions could also be classified into more general, "psychological" types such as *extra-punitive* (the managers are to blame) versus *intra-punitive* (I am to blame).

A final variant of types and patterns analysis involves identifying typical situations which are of special interest for understanding particular aspects of the situation being studied. For example, this might involve a typical situation which had had a particularly strong effect on a particular type of respondent or had evoked a specific kind of reaction. This approach made it possible, for example, to show that younger loading personnel were inclined to react in an intra-punitive way when they tried to avoid the early morning shift in the middle of winter. For instance, they felt guilt about reporting in sick on particularly unpleasant days even though there was nothing wrong with them, although this did not stop them from continuing the practice! Such insights provide practical advice on training of supervisors and counselling new employees.

Interpretative phenomenological analysis: Phenomenology is concerned with how different events or states are experienced subjectively. It focuses on what experiences "feel like" to the individuals experiencing them. Interpretative Phenomenological Analysis (IPA) was developed specifically within psychology in order to use qualitative research methods to get at such feelings. It is now being used widely by researchers in health, clinical and social psychology: What does it feel like to be sick or depressed or lonely, for instance? This is, of coursed, a variant of the basic question in qualitative research: "How do people who are ill, depressed or lonely construct their situation?" What is special about IPA is that it *explores the individual's personal experience of a state or an event*, rather than describing the state or experience itself.

IPA can be used as a clinical diagnostic tool focused on a single case for the purpose of making recommendations for treatment, but for our purposes here it is better understood as a research tool for analysing a psychological phenomenon (see the examples above). In this case, as is customary, several cases are analysed one after the other and the phenomenological description is progressively refined, until the analysis of a new case produces no further refinement or only minor refinement, in which case the parsimony rule indicates that no further cases are needed. Typically, IPA specifies the object of study in advance (i.e., it is less emergent than some analytic induction or grounded theory approaches), and uses semi-structured interviews, in order to be sure that the respondent focuses on the particular phenomenon under investigation, while still allowing the researcher to probe interesting areas

which emerge. In theory, other qualitative data collection methods can also be used, e.g. diaries, letters or other narratives.

A Concrete Example

In order to make the whole procedure more concrete, I present in the following section the summarised and clarified text of an interview with a respondent who took part in a study of social workers' reasons for choosing to work with refugees and their psychological reactions to the job (Cropley, 2002). Although the example is based on an actual study it is presented here in a heavily modified form to make it suitable for the purposes of the present book. The first passage contains the social worker's remarks before summarization and clarification. As can be seen at once, the passage contains many *meaningless* elements that had to be removed in the process of *summarizing* and *clarifying* (see above).

[The interviewer asks about reasons for taking up social work with refugees.]
Well, of course, I ah, I mean everybody is the same, well, I wanted a job, and this one they ah offered it to me because it was you know it was available. It seemed OK, ah when I thought a bit I thought more or less it was just right when you think about it for me. I ah suppose I have to say that I, you know since I was young, have always been fascinated by the like exotic or what you call unusual. I wanted to see more, like experience what they call new horizons, broaden them you could say. That's me, I guess that's the sort of person I am, or any way I think that that's what I am. I'm social, you know I like to be with others, ah a ocial like creature too. I don't have any ah problems you could say that I get along well with people, most people I think ah even you know the kind that most people don't like that kind of people, so that I wasn't worried about, I didn't have any anxiety about ah actually I thought it was ah good to work with strangers**.**
It wasn't just that, though. I mean it's good when some-one has problems to be there, I ah feel OK when I help some-one. Especially when, mostly when, they have you know problems. But I am a person who likes, well I don't want some-one telling me "Do this, Do that!" I like to ah decide myself. A bit OK, but not telling me like all the time.

After summarizing and clarifying, the passage was much easier to understand, as can be seen from the passage that follows. The significance of the sections of the text that are now written in bold face will be explained shortly:

[The interviewer asks about reasons for taking up social work with refugees.] Well, of course, I wanted a job, and this one was available. It seemed just right for me. **I have always been fascinated by the exotic** or unusual. **I wanted to broaden my horizons**. That's the sort of person I am. I'm a social creature too. **I get along well with people**, even difficult people, so that **working with strangers interested me**. It wasn't just that, though. **I like to help people in trouble**. However, I'm an independent type. **I want to be able to work without someone telling me what to do** all the time.

The summarised and clarified version of the text can be compared with the original form given above. This comparison makes clear the value of these steps before commencing the actual process of developing content units. I turn now to this process.

The passage above and the two texts that follow are all part of the data collected in the social worker project. The researcher's object of study was social workers' reasons for entering their particular branch of work and the psychological problems they encounter there, and the identification of content units therefore focused on these areas. The groups of words written in boldface, both in the passage above and in those that follow, are the content units identified as relevant to the object of study.

[The interviewer asks: "Are you satisfied with your job?"]

What worries me though is that **I want to do my job better**. I can see that I need to learn more about people. You learn a lot on the job and that pleases me, but **I need more academic training**. Otherwise, I feel that **I am not really good enough** as a social worker. Conditions in the hostel aren't good. We don't get enough financing and the politicians don't care. **The clients are often very difficult** too. They quarrel among themselves and some try to get more than the others. **I don't know if I am really helping them**. They don't seem to make much progress. **Why can't they avoid trouble themselves?** Like when they don't pay their fare on the train. Then they try to get me to do what they want. **I'm sick of them trying to control me.** When I talk like this **I feel guilty**, because **I feel disloyal to my clients**.

[The interviewer asks how the respondent feels about the interview.] Well, it has helped me to **do something for myself for a change**. It gave me a chance **to overcome my isolation** and get new ideas about my job. I need such conversations in order **to understand the point of my work**. Otherwise it just seems to be doing the same thing over and over again. **I feel so helpless.** I often ask myself, "**Do you really need this job?**" I am too involved and **it wears me down.**

Statements such as, "Well, of course, I wanted to earn money, and this job was available," were disregarded because they were not specific (wanting to earn money refers to any job, and not specifically to social work with refugees). In a similar way, the statement "We don't get enough financing and the politicians don't care," refers to a difficulty of the job, to be sure, but it is not a statement about the respondent's psychological reaction to the job (i.e. it is irrelevant to the object of study). The same is true of "Conditions in the hostel aren't good," and "They don't seem to make much progress." The content units identified as relevant (i.e., those in boldface) were subsequently related to psychological categories. The results of the analysis of this case (the first one analysed in the study in question) are shown in Table 7.2 (see next page). Tentative concepts defined by the "categories" were also identified, and these are also shown in Table 7.2. The contents of this table can be regarded as representing the completion of step 5 in the description of grounded theory given on pp. 134-136.

Completing a Qualitative Analysis

The typical results of a qualitative content analysis conducted as outlined above is a set of concepts (such as "Motivation," "Personality characteristics," "Self-doubt," "Job-related stress," and "Burnout syndrome"). These do not stand alone, however. They *summarize* in psychological terms the way the participants in the interviews conceptualized the phenomenon under discussion. In the example above this involved social workers in the specialized area of refugees. Also available to the researcher are the original interview texts (i.e., the full interview context) as well as informal information such as emphasis, tone of voice, body language and observable nonverbal behaviour such as gestures or even smiles, crying and the like. The researcher's task is now to

- describe the way in which the object of study is understood in the particular group of participants with whom the interviews were conducted, *using the concepts worked out in the content analysis as a framework*

Table 7.2: Content units and categories identified in the social-work interview

Content Units (specific, concrete and couched in everyday language)	**Categories** (more general, more abstract and in fairly scientific language)	**Concepts** (abstract, scientific and related to theory)
to work without supervision to help people in trouble	desire for independence helper syndrome	**MOTIVATION**
fascination with the exotic I wanted to broaden my horizons working with strangers I get along with difficult people	openness to novelty desire for novelty tolerance for uncertainty feeling of special personal qualification	**PERSONALITY**
I am not really good enough I want to know more about people I need more academic training I feel guilty I feel disloyal to my clients	self-doubt need for greater knowledge feeling of personal deficiency negative affect about herself	**SELF-DOUBT**
I want to do my job well I don't know if I am really helping them The clients are often very difficult Why can't they avoid trouble themselves I'm sick of them trying to control me	success orientation uncertainty negative feelings towards clients feeling of being manipulated	**JOB-RELATED STRESS**
to understand the point of the work to overcome my isolation (the job) wears me down Do I really need this job? I feel helpless	sense of meaninglessness isolation sense of personal destruction sense of meaninglessness loss of control	**BURNOUT**

- interpret the relationship of the participants to the object of study, *using the concepts worked out in the content analysis as a framework.* Occasionally, the purpose of the study is to examine the way the concepts apply to particular individuals rather than to particular situations. In this case, a special phase is necessary.
- **generalize** the interpretation just mentioned (i.e., develop an understanding of the object of study that goes beyond the particular individuals studied). This

is the first level of *development of theory*

- **formalize** the generalization not just to other people, but to relevant psychological and educational theory
- **apply** the results of these steps to concrete, practical problems (i.e., make the analysis *useful).*

In the actual study on which the table is based, analysis of further interviews yielded many more content units that fitted well into the existing framework. The analysis then moved on to use the concepts just identified in order to develop a general description of the social workers in the study, i.e., a *substantive analysis* (see p. 75-76) was carried out. This analysis also made use of supplementary information such as repetition of statements, raising of the voice, or various forms of body language. The analysis finally went beyond description of this particular group of respondents in order to develop a general, psychological description of problems and difficulties of social workers working with refugees, i.e., a "formal" analysis was conducted. How to do this in a truthful, confirmable and useful way is the subject of Chapter 8.

Chapter 8: The requirements for a rigorous qualitative report

The task of a research report is to *communicate* the results of an investigation to readers. This calls for more than a literary or journalistic report, even though the study being presented may have involved descriptions of everyday experience couched in informal language. A research report must deal with scientific issues, and must leave readers better informed than before they read it. This means that it must contain some "surprise." Thus, simply recording and reporting narratives is not enough, even if the report is organized into an interesting, structured account. However, the kind of surprise that is needed does not result simply from departing from the usual or expected in an undisciplined way: A thesis or dissertation must be a *scholarly* document displaying *scientific rigour*. As Kvale (1995) put it, a scientific report should display what I call "artisanship." In this chapter I deal with the question of how to report qualitative research in a way that expands existing knowledge, while at the same time meeting the standards of scholarship and rigour necessary for a scientific report (i.e., I will look at how to deal with problems such as thee apparent *arbitrariness*, lack of *proof* and *triviality* of qualitative research). Although there are no set procedures for achieving this, general principles can be laid down, and this will be done here.

Chapter Glossary

artisanship: specialized skill in carrying out a demanding practical task to produce an effective and pleasing product

effective surprise: novel ideas that are plausible, relevant, and useful

higher order theory: theory that enlarges understanding of a field of study (also referred to as "formal" theory)

indefiniteness: the quality of research that allows the object of study, sampling, data collection, and the like to be changed in the course of an investigation. Until recently this was referred to as "openness," but this term now has a different meaning (see "open research" below)

open research: research that is conducted in accordance with strict and exact rules of procedure that are specified in detail in advance and are thus "open"

open research reporting: reporting of research that reveals everything that was done in a study

rigour: a combination of adherence to rules of good practice, thoroughness, precision, and accuracy

propelling a field: changing the way people conceptualize a phenomenon or area of study

quasi-creativity: novel ideas that have no objective substance

substantive theory: theory that enlarges understanding of a specific object of study and/or group of participants

science communication: the study of factors that facilitate/hinder popular understanding of research findings

transparency: a property of a research report that makes what was done, how, and why clearly understandable

usefulness: propelling a field in a way that can be applied in practice

Openness in reporting

Today, there is much talk of "open science" (e.g., Open Science Collaboration, 2015). The related discussion emphasizes the admirable goal of making research findings reliable (replicable). This is not merely an abstract academic issue: As the German Psychological Society (DGP, 2017) put it, critical discourse based on *informed* opinion is the indispensable foundation of democracy. According to the DGP, a failure of research to provide readily understandable information that stands up to scrutiny threatens "uncertainty and mistrust" of science. Bromme and Kienhuis (2017, p. 167) even suggested a new scholarly discipline, which they called "science communication." Much of this book, especially the present chapter and the next, can even be seen as first attempts at discussing aspects of science communication such as transparency, credibility, and the like. At the level of research reports, the need for transparent presentation of all phases of investigations is emphasized. All aspects of the research process need to be clearly documented, and reports written in a way that make plain what was done, what happened, and what it all means.

Different understandings of "openness: Earlier in this book (see, for example, pp. 45-47) I repeatedly emphasized the "openness" of qualitative methods, using the term to refer to emergent properties such as changing the object of study part way through an investigation, changing the data-collection method, developing hypotheses after data have been collected, and similar actions. However, in very recent quantitative research "openness" has come to mean adhering closely to strict methodological rules. If all researchers always go about all research in precisely the same way, what was done in a particular study will always be clear, so that the research will be "open." As of December 31, 2018, more than 150 scientific journals had gone so far as to require that the exact procedure of *planned* investigations must be registered *before* data collection is even started, so that projects can be

approved in advance as methodologically correct (or not). Some journals now guarantee to publish reports even if they yield no significant findings, provided that the methodology was pre-certified as correct. Thus, in the recent "open science" discussion, the term "openness" means more or less the opposite of what I have used it to mean so far in this book. Because of the conflicting useage of the term, from now on I will refer to the "flexibility" of qualitative research. The issue with which this chapter is concerned then becomes the question of what a report should contain in order to be rigorous, despite the "flexibility" of the procedures it is reporting.

Criteria of a rigorous scholarly report

What makes a qualitative thesis or dissertation rigorous? Although they did not specifically use the term "rigour," Altheide and Johnson (1998) suggested four criteria that I will apply here: *plausibility*, *relevance*, *credibility*, *importance*. To these Kvale (1995) added an important fifth criterion – "beauty." By this he meant in particular internal logic, clarity and elegance of expression. These properties are summarized in Table 8.1. It is important to note that formal correctness is not mentioned in the list. This is because there is no simple, clear cut right or wrong way to do qualitative research – it is flexible – and to write the corresponding report. In effect, r*esearchers can do what they like, providing that they describe it clearly and precisely*, so that readers can judge for themselves whether it was rigorous. In addition, researchers must make it clear that decisions made during the course of the investigation were based on specifiable systematic rules, and were not arbitrary or *ad hoc*. Of course, readers are not compelled to accept everything the researcher does or says. As a result, the researcher's *credibility* is of great importance, as Kvale (1995) emphasized. Credibility arises from artisanship, and establishing this credibility is one of the central tasks of the research report.

Table 8.1: Criteria of rigour in a qualitative report

Property	**Requirement**
Plausibility	The report should be rationally related to existing scientific knowledge
Relevance	The report should link the topic to people's experience of life
Credibility	The report should contain interpretations that are well founded, logical and believable
Importance	The research should generate ideas for further research and also for practice
Beauty	The report should be pleasing to read: clearly written, well-constructed, and well argued

Achieving rigour: I turn now to the question of how to fulfil these criteria. What properties of a report make its contents rigorous in the qualitative sense just outlined (i.e., plausible, credible, relevant, important and beautiful)? Building on suggestions of Hamel (1993), I divide a report into content areas: in order to be rigorous these must have the properties shown in Table 8.2.

Table 8.2. The sections of a report and their key properties

Content Area	Property
Specifying the object of study	What the report is about must be clearly stated in both everyday and scientific language
Selecting the cases	The participants' demographic properties, how they were recruited, and how they are "representative" must be fully described
Describing the procedures	This section must describe what was done and how data were recorded
Analyzing the data	The steps must be described and examples given that make the steps understandable
Interpreting and generalizing	As much as possible, the report should expand existing knowledge

The "properties" just listed require more detailed explanation and this is provided in the present section:

- *The specification of the object of study*: A high quality report makes clear from the very beginning what question or issue is being examined. This can initially be stated in everyday language, but it must be specified in scholarly terms in the course of the report.
- *The selection of the cases*: Well-chosen cases "represent" the object of study in a way that is obvious and compelling. The presentation of the case(s) in the report must (a) specify who they were (demographic data), (b) explain why they were suitable participant for the particular object of study, and (c) show how their participation was obtained.
- *The description of the procedure*: This must explain what technique was used to obtain data (e.g., participant observation, semi-structured interviews, examination of existing documents, etc) and under what circumstances, what preliminary steps occurred (e.g., a small number of pilot interviews), what aids were developed (e.g., rating schedule, interview plan, "prompts"), and how data were recorded (e.g., notes during an interview, video recording, etc).
  The description must contain sufficient concrete detail for another researcher

to be able to repeat the study in a form closely resembling the original research. It must be clear, logical, well-organized and complete. It must distinguish clearly between description of the method used to obtain the data and details of the data themselves. Where the researcher made decisions such as concentrating on certain material and ignoring some other, the rules underlying these decisions must be explained so that it is apparent that they were objective and consistent. Examples are very helpful.

- *The description of the data analysis*: In particular, a rigorous qualitative analysis is systematic, logical, understandable, plausible, and convincing. Because no set formulae exist, the various steps of the analysis (see Chapter 7) must be outlined and made understandable with the help of concrete examples. It is important to distinguish clearly between data and interpretations of them.
- *The interpretation and generalization of the findings*: Conclusions can be of two kinds: "substantive" (relating to the particular case(s) in the present study) or "theoretical"/"higher order" (relating to the object of study in general). They should expand existing knowledge ("create surprise" – see pp. 155-156). They should be *plausible* (i.e., consistent with the evidence delivered by the respondents), *credible* (believable) and *consistent* (internally logical). Also important is a distinction between a scientific interpretation of data and personal opinions, political views, or even hopes or wishes about what the researcher thinks the world should be like. The latter are perfectly acceptable in a scholarly report, but they must be identified as what they are and not presented as though they were strictly derived from the evidence obtained in the study.

Usefulness: To be externally valid a research report should be, above all, "useful" (Kvale, 1995): Findings should be relevant to real life and capable of advancing "sensible discussion" (Cronbach, 1980, p. 107). In order to be useful the report must be (a) *informative* (it must deliver an overview of the object of study), (b) *broad* (it must bring together a range of material), and (c) *practical* (it should offer ideas that can be applied to real life). However, the aim of useful research is to go further – it should advance thinking about the object of study. To do this it must be (d) *original* (explanations or interpretations should offer something new) and (e) *seminal* (explanations should show the way to or provoke further discussion and stimulate formulation of theory or offer new ideas on how to investigate the object of study more intensively). The criteria of usefulness are summarized in Table 8.3.

Table 8.3. Criteria of the usefulness (external validity) of a research report

Criterion	Explanation
Informative	The report must provide scholarly and scientific information about the object of study
Broad	It must offer a range of information and not be too narrow
Practical	It should offer generalizations that can be applied in real life
Original	It should go beyond common sense and offer new ideas
Seminal	It should suggest new hypotheses about the object of study, make suggestions for further research, and/or suggest novel ways of investigating the object of study

As with other properties and criteria such as those listed in Tables 8.1 and 8.2, these criteria form a total package that is ultimately judged on its overall quality. This means that not all dimensions will necessarily be equally strong in a particular report: A thesis or dissertation may have weaknesses in some areas, but still be of high overall quality (or of course not be), because particular strengths may compensate in part or in full for specific weaknesses. However, it must be borne in mind that glaring weaknesses in one area can also undo good work in another.

Achieving originality

The last two criteria of usefulness listed in Table 8.3 (originality and seminality) differ from the first three in that they cannot be achieved simply by hard work and knowledge. These are necessary, it is true, but are not sufficient. Achieving originality and seminality requires more, since the goal is to expand knowledge. In the case of quantitative research, this is usually regarded as having occurred when a null hypothesis is rejected. From time to time some quantitative researchers argue that the *failure* to reject the null hypothesis can also expand knowledge, for instance in studies where there are overwhelming reasons for expecting it to be rejected, but it is not: In terms of the following section this would be an example of a "surprising" result. However, very little quantitative research is published in which the null hypothesis was not rejected. Rejection of the null hypothesis permits generalisation of existing knowledge to new populations and/or new settings. In the case of quantitative research, by contrast, generalisation takes on a different form (see p. 156).

***Generating surprise*:** To repeat Elliott's (1999) comment mentioned earlier, qualitative researchers hope *to discover something new and unexpected*. Thus, a research

report must seek to generate *surprise*. This means that it must go beyond common-sense and develop an explanation of the data that transcends explanations initially offered by the respondents. Furthermore, it must do this according to principles not obvious to the respondents, and in so doing expand and generalize their constructions. Better still are general conclusions that contradict respondents' hunches, based as they are on a single case (themselves) and pre-scientific ways of analysing and drawing conclusions. Ideally, the interpretation of the data would *surprise the researcher too* by revealing an internal structure of the object of study that had previously been hidden. By doing so, a report acquires *surprise value*. Without this it simply repeats what we already knew. It is important to remember that achieving surprise is always subject to the tenet of rigour (system, logic, understandability, plausibility, and convincingness). Naturally, it is easy to achieve surprise by wild speculation, but this is not what is meant here. Surprisingness without rigour involves what Cropley (2001, p. 14) called "pseudocreativity" or at best "quasicreativity." What is required, however, is surprise that is "effective."

***Propelling the field*:** Effective surprise "propels a field" (Sternberg, Kaufman & Pretz, 2000) – a "field" for our purposes here is what I call an "object of study." According to Sternberg, there are seven ways of doing this:

1. *conceptual replication* (transferring what already exists more or less unchanged to a new field);
2. *redefinition* (seeing the known in a new way);
3. *forward incrementation* (taking the known further in an existing direction);
4. *advance forward incrementation* (extending the known in an existing as above, but going beyond what is currently accepted);
5. *redirection* (extending the known in a *new* direction);
6. *reconstruction and redirection* (returning to an approach previously abandoned and breathing new life into it);
7. *Re-initiation* (beginning at a radically different point from the current one and taking off in a new direction).

These ways of propelling a field can be thought of as forming a hierarchy. At the lowest level it is simply a matter of transferring what is already known to a new field. Successive levels involve greater production of novelty, but usually by adapting, extending, refining, or redefining what already exists. Indeed, Miller (2000) concluded that *seeing the already known in a new light* is the core of creativity. Only the highest level involves creating something entirely new. In other words, achieving effective surprise does not normally

require the development of previously unknown ideas in a burst of inspiration, but "merely" the clarification and refinement of existing theory. (This is not to suggest that inspiration is to be ignored: The intention here is to guard against exaggerated expectations.) Sternberg, Kaufman and Pretz's (2002) seven criteria can all be applied to the question of how to expand knowledge in qualitative studies. They can serve both as guidelines on how to construct original, surprising interpretations and also as a framework for self-assessment of degree of originality.

***Generalizing*:** The implications of these ideas for the process of generalisation in qualitative research are summarized in Table 8.4. It must be admitted that the

Table 8.4. Generalization in quantitative and qualitative research

Kind of research	**Steps in generalizing**
Quantitative	• Transfer of *existing* knowledge about the object of study to new settings or populations through testing of hypotheses formulated before the study commenced
Qualitative	• Creating surprise: Differentiation, extension or refinement of existing theory. • Development of new hypotheses. • Working out of new research questions. • Suggesting novel approaches to conducting research on the object of study

characterization of quantitative methods in this table is an oversimplification, but it is adopted here in order to create a clearly recognizable contrast. Put briefly, quantitative research can be stereotyped as seeking to prove that existing theory also applies in new situations, whereas qualitative seeks to see the object of study in a new way, i.e., to generate surprise. The "steps" listed in Table 8.4 as characterizing qualitative research are to be regarded as idealized goals – the task of the researcher is to go as far as possible towards fulfilling them. The way in which this is done in the expanding of theory is discussed in the following section. As has already been mentioned, the various aspects of creating surprise can receive different weight in a particular report, while strengths in one aspect (e.g., "development of new hypotheses" or "working out new research questions," and so on) can compensate for weaknesses in another.

Judging the extent to which a report generates novelty: D. H. Cropley and Cropley (2016) have developed an instrument that can be used to measure the extent to which a report

drives a field and the way it does this. They call this instrument the *Creative Solutions Diagnostic Scale* (CSDS). In essence, the scale identifies five "competences" of a report (the "solution" mentioned in the title of the test:

- Relevance and Effectiveness
- Problematization
- Propulsion
- Elegance
- Genesis

These competencies are broken down into properties of the report ("indicators") that make it possible to identify the presence or absence of the characteristics underlying the competences. The indicators include aspects of Relevance and Effectiveness (such as familiarity with the already known, accurate presentation of this knowledge, relevance of the presentation of the material for the object of investigation), Problematization (e.g. problem identification, prognosis), Propulsion (e.g. redefinition, redirection), Elegance (e.g. convincingness, pleasingness) and Genesis (e.g. seminality, germinality). The indicators can be considered as characteristics of a research report that allow a "diagnosis" of its strengths and weaknesses in terms of advancing the field. For example, one research report could be strong in terms of problem detection but offer no new approaches, whereas another might reveal vast knowledge of an area but show little insight into the shortcomings of what already exists.[16]

Advancing Theory

A key element in achieving external validity in qualitative studies is the enlargement of knowledge (see Table 8.4). Very early in discussions of qualitative methodology, Znaniecki (see Jorgenson, 1989. p. 112) discussed the way in which qualitative studies can do this. According to him, it always involves drawing general conclusions about "components of a theoretical system," i.e., it always involves theorizing. The theoretical conclusions can be "functional," "genetic," or "causal" in nature: *Functional conclusions* involve theory about the way elements relate to each other and are interdependent, *genetic conclusions* transform existing systems or even work out new systems, and c*ausal conclusions* use the information obtained in a content analysis to infer cause-and-effect relationships. The latter resemble most closely the typical result of quantitative studies. Despite this, all three kinds of explanation are possible in qualitative studies too,

16 [16]The CSDS can be used by students to analyze their own research reports. See https://play.google.com/store/apps/details?id=com.csdsrubrik.id&hl=en)

although it should be noted that the criteria of what is a proof are derived from the philosophy of truth, not inferential statistics (e.g., Kvale, 1996).

Two kinds of theory: Strauss and Corbin (1998, p. 161) made a differentiation that is very useful for the present discussion: They distinguished between "substantive" and "higher order" theory. The former focuses on theorizing about the object of study and the particular group of participants involved in the study in question. Substantive theory can be developed about (a) interactions among people (cases) in a particular setting, or (b) processes involved in a particular phenomenon (e.g., phases, stages and the like, or relationships between changes in conditions in one area and changes in another). However, a scientific research report in psychology and education should go beyond substantive description of a particular object of study in a concrete situation and seek to advance knowledge about other situations too, i.e., to generalize. This is the phenomenon of "formal" or "higher order" theorizing. Higher order theory is more abstract and general. It not only advances knowledge about the particular cases studied in the specific research project, but it also enlarges the general body of educational and psychological knowledge. As Strauss and Corbin pointed out, this kind of theorizing is more common in quantitative studies than in qualitative ones, although this does not mean that it is impossible in qualitative research.

Criteria for evaluating advances in theory: Kvale (1995) emphasized that in qualitative research the worth of theorizing is measured by its "usefulness." As Cronbach (1980, p. 107) put it, this means that the study's conclusions "advance sensible discussion." Katz (1983) made a similar point in defining usefulness: It lies not in establishing absolute truths but in *advancing knowledge*. Judging how much a particular study has achieved is thus not a matter of what universal laws it "proved" but of how much it advanced knowledge. The methods of analysis outlined in Chapter 7 can then be seen as strategies for using data to advance knowledge. This can be done by

- altering ways of thinking about the object of study
- generating novel hypotheses about the object of study
- giving new impetus to research on the object of study, for instance by provoking novel lines of inquiry
- suggesting novel ways for looking at either existing lines of inquiry or new ones

These are the basic criteria that should be applied to judging the usefulness of a qualitative study for advancing knowledge. They can be stated in the form of questions:

1. Does the study help us to see a psychological/educational issue in a new light?
2. Does it suggest new hypotheses about the issue?

3. Does it indicate what further research is needed on the issue, or open up novel lines of inquiry?
4. Does it suggest novel kinds of research?

Chapter 9: Rigorous, accessible, and transparent reporting

Qualitative research methods breach numerous rules of traditional procedure, such as forming the hypothesis only after the data have been collected, treating intuitions or hunches as knowledge, or allowing the researcher to specify what data mean (as against object tools such as test manuals, instruments, and the like). Since such procedures are not highly standardized in qualitative data collection and analysis, they must be reported with clarity, frankness, and completeness. Thus, it is essential that qualitative reports make clear what was done, how, and why. The case studies in this chapter show how to report subjective aspects of planning, implementation, analysis and implementation of a qualitative study in a flexible but transparent way.

Chapter Glossary

accessible reporting: research reports that contain all the relevant information about what was done and why

confession in reporting: reporting that does not hide weaknesses, problems, compromises, and the like

transparent reporting: research reports in a way that it is understandable to readers and could be repeated by them

Writing a report

In addition to the "scientific" issues discussed in Chapter 8, a number of more technical or stylistic aspects of the preparation of a qualitative thesis or dissertation need to be dealt with. Some of these will be discussed in the following paragraphs. The issue is that of making a report accessible and transparent, but also rigorous.

"Confession" in reporting: The convention in reporting quantitative research is to smooth out irregularities, i.e., to present a cleaned and streamlined report as though everything went according to plan. However, hitches often occur, despite the fact that the tradition is to gloss them over. A simple example is that in reports on conditioning rats to run through mazes it is seldom mentioned that the animals sometimes refuse to leave the starting cage! In qualitative research, which accepts a high degree of flexibility or indefiniteness in carrying out a research design and of subjectivity in recording, analysing and interpreting data, this problem is often much greater, and the question of how to handle this state of affairs when writing the final report is important. Referring to field research in sociology and

anthropology, van Maanen (2011) described the "confessional" style of reporting results with a considerable degree of irony, commenting that the confession seldom goes so far as to involve admitting being wrong. Also writing as sociologists interested mainly in field research, Fontana and Frey (1998) made a similar point when they wrote with approval of "soul cleansing" in writing reports. For our purposes this means that it is appropriate to describe events in the development of a qualitative research project in the way they actually occurred, although without exaggerated self-criticism.

Indeed, it may be necessary to do so. For instance, the object of study may have changed after a small number of interviews had been conducted, possibly because it became apparent that the original object was too complex or abstract for interviewer and/or respondents, or because it proved too painful for them. The way in which interviews were conducted may have had to be altered, for a number of reasons (e.g., unwillingness of respondents to talk about the object of study using the originally planned format, need for greater structure than originally foreseen, etc). It may have proved impossible to obtain the cooperation of the group of participants originally planned. The recording of data may have had to be curtailed, with subsequent omission of certain kinds of information. As a result, it may prove to be impossible to maintain the fiction that the project started with a clearly formulated hypothesis that was systematically tested by a set of steps laid down at the beginning and followed strictly and without variation to their inevitable conclusion.

In a similar way, there may have been moments of uncertainty with the data analysis. Coding may have proved less clear cut than anticipated, for instance because the meaning of respondents' words was ambiguous, and there may have been a degree of uncertainty about some of the categories identified. Some decisions about the meaning of statements may have been taken with an obvious degree of subjectivity. Some interpretations may have a particularly strong subjective component and some conclusions may be speculations rather than strictly logical. These are allowable, provided that they are identified for what they are. The main thing is to say clearly what happened and why (i.e. to "confess").

***The language of the report*:** The data being reported in a qualitative study normally consist of "commonplace evidence" (Hamel, 1993, p. 33), usually couched in everyday language. However, the report – often a thesis or dissertation – is a scholarly document, not a piece of journalism or *belles-lettres*. Thus, it must be couched in appropriate language, in the present case, the language of psychological and education or other social sciences. Students sometimes think that an insistence on using the specialized language of a scientific discipline involves pedantry, love of jargon, a wish to make relatively trivial or banal ideas seem more

important than they really are by couching them in complicated language, an attempt to gain prestige by activating the positive associations connected with a discipline's special language, creating false insider status by using a kind of secret language shared only with specialists in a particular area, or even an attempt to shut out non-specialists who are not familiar with this language. However, the language of a discipline is not simply jargon, but is a specialized terminology that facilitates communication with other specialists, and by evoking associations connected with the discipline gives new material a particular "flavour," brings to mind related existing knowledge, reminds the informed reader of special issues such as conflicts of opinion among experts, and adds to the believability of the conclusions being drawn. A report gains credibility from its ability to achieve a linkup with existing norms in an area of study, and this purpose is greatly facilitated by the use of appropriate specialized language.

***The status of the researcher in the report*:** Important in achieving plausibility is that a thesis or dissertation contain signs of professionality and self-confidence in the researcher. Indeed, Kvale (1995) pointed out that the personal credibility of the researcher is a major factor determining whether readers will allow themselves to be influenced by a research report. Statements of opinion, interpretations, or even speculations are permissible, even desirable, but they should always be identified for what they are. As was pointed out above, they should not be confused with logical conclusions. They should be stated with an air of authority, even when they are identified as tentative, preliminary, or speculative, because to a considerable degree they define the extent to which a research report is interesting for readers. This does not mean claiming infallibility or complete certainty: Speculations, hypotheses and assumptions can be identified for what they are without loss of authority. Much more important is to make clear what intellectual and scholarly basis statements have, and to show that they are rational and logically linked with existing opinion. Students sometimes err by being overly modest and making themselves unconvincing, for instance by being too hesitant, excessively uncertain, or even presenting themselves as ignorant, inexperienced and incompetent. If there are weaknesses in execution in a qualitative study, it is best to draw readers' attention to these in an apologetic way, but without cringing. One graduate student I supervised chose particularly inappropriate language in her thesis when she referred to herself as "this humble, insignificant person."

Transparent presentation: A case study

The following sections contain a concrete example of the writing up of qualitative research based on Petersen's (1989) study of the motivation of hobby authors, for which she obtained the German *Diplom* (comparable to an MA). The thesis was entitled "Motivation of amateur

authors." The following sections consist partly of extracts from Petersen's thesis. These are presented in boxes. However, the original text has not only been translated from German into English, but it has also been adapted for the purposes of the present book. Of course, the passages given here are only brief extracts from Petersen's thesis, because extended quotation would have exceeded the space available here. Both selection and adaptation of passages were conducted with the purpose of providing clear examples of what is meant by terms employed in this book. These passages are supplemented by brief summaries of other sections of the thesis, so that readers can obtain a general understanding of its structure and contents. The statements in italics contain my comments on the Petersen material. In passages directly quoting Petersen's thesis, literature sources she cites are retained in the quoted text in order to show how she made use of the literature relevant to her object of study. However, the details of these sources are not included in the list of references in this book, since they do not refer to its object of study (qualitative research methodology). The passages reflect Petersen's original perspective: For instance, the expression "I" in the following sentences refers to Petersen herself, not to me.

Specifying the object of study:

"As a hobby author myself I have often participated in writers' circles. Discussions with other members of such groups suggest that they experience a strong urge to write down their ideas. Because of the apparent importance of a drive to write (motivation) suggested by these observations of hobby authors, I decided to investigate the question: **'What leads hobby authors to write?'**" *Here Petersen identifies her object of study with admirable brevity and clarity, although in everyday language.*

"Necka (1986) hypothesized that there may be a number of components of such motivation, including need for recognition, need to communicate, need to prove oneself, and so on, and that these interact. However, he provided no empirical evidence. I was thus particularly interested in whether there is a single general drive to write, or whether the motivation of hobby authors can be broken down into differentiated components and, if this should prove to be the case, what relationship these components have to each other. Of particular interest was the question whether there are different and special patterns of motivation resulting from difference combinations of motives." *Petersen defines the object of study in a more scientific, psychological way and also orients*

readers' attention to ideas that will later be central to her thesis. She writes as though she still does not know what will emerge from her research, although in reality these sentences were written after the research had been completed, so that she is really preparing readers for what she already knows is to come in her thesis. Petersen did not commence the analysis without any idea of what she was looking for – the analysis was not conducted "cold." None the less, she specifies her object of study in general terms only.

Collecting the data: Petersen discussed various data collection procedures such as questionnaires or projective tests. However, she concluded that "the most appropriate way of collecting data would be interviews with the authors themselves (p. 5)." In making this decision, she decided to treat the authors as "experts."

"In order to avoid limiting the breadth of the interviews, it was decided to investigate the question of motivation via relatively open interviews. None the less, at least one opening question was needed, as well as a strategy that would make it possible to see to it that the participants did not wander too far from the main topic, but did not limit too severely the contents they introduced into the interviews. It was also necessary to consider how the fundamental question, "Why do you write?" could be broken down into answerable sub-questions (p. 6). …Four questions were developed. These were as follows:

1. Can you remember the first time you wrote something of your own?
2. What happened after you wrote it?
3. Is there anything else you would like to mention?
4. Can you explain why you write, whereas others do not?"

Petersen lists the questions she used to give her initial interviews a certain degree of structure.

Two exploratory interviews were conducted in order to try out these questions. Petersen described these two interviews (where they were conducted and with whom, how long they took, how she recorded responses, and so on). The exploratory interviews were used to develop prompts.

"In the two exploratory interviews, which served as a pilot study, it was established that interview partners could understand these questions, found them interesting and

were even eager to discuss them. Discussions in the pilot study showed that respondents spontaneously introduced eight more specific themes into their responses to the initial four questions. These themes were converted into questions that were then used as prompts in later interviews if the respondents did not spontaneously introduce them into the conversation:

1. What was the role of external stimuli?
2. What are your thoughts about writing?
3. What are your feelings before, during and after writing something?
4. What is the role of communication in your writing?
5. What is your source of ideas for topics to write about?
6. What problems do you experience in writing?
7. How important are formal writing skills?
8. What is the role of social factors in your writing?"

Petersen carried out two preliminary interviews to see if she could persuade writers to participate and how difficult it would be to obtain their views. The data from these two interviews were incorporated into the final study and presented as though they had been an integral part of it. Although the interviews in the main study were only loosely structured, because of the interviews in the pilot study Petersen knew what areas she wanted to cover and had the eight specific questions ready as prompts, in case respondents did not spontaneously discuss these areas. These questions were not imposed on the research by Petersen on the basis of a theory or of knowledge of the literature, but emerged from the pilot study or trial run (i.e., they were "emergent" issues). They were thus the first results of the study. This demonstrates the dynamic nature of qualitative research.

Describing the participants: There were 10 participants (four men and six women), aged between 17 and 31. All participants had completed the German high-school graduation examination (*Abitur*). They were recruited via contacts with people who were hobby authors, and all of them were participants in writers' groups. Thus, Petersen included in her sample people who obviously "represented" hobby authors by virtue of being active in this area. In the thesis she drew attention to this, described the way in which the interviews were conducted in some detail (usually in the home of the participant, although not always), as well as how long they took. She commented on the willingness of the respondents to participate and on the lack of difficulty they had in discussing the issues she was interested in

and communicating their thoughts about it. In general, respondents dealt spontaneously with most of the issues listed above, which indicates that these were relevant to their own conceptualizations (constructions) of their situation and were not simply imposed by the researcher.

Coding the data: The interviews were tape recorded and then transcribed. Subsequently, they were subjected to the processes of summarizing and clarifying described in Chapter 7 (see pp. 130ff.). This procedure was carried out one case at a time. In the actual thesis the summarizing and clarifying steps were described in detail. The rules Petersen developed for doing this were explained, and examples of original text were given, followed by the summarized and clarified versions of this text, much as was done in Chapter 5 with the two versions of the passage on social workers' reasons for specializing in the area of refugees. In view of the fact that there were only 10 participants, each case was presented separately, with examples of how specific passages were summarized and clarified. This follows the principle of the quantum of effort introduced in Chapter 4. Even with only 10 interviews it was, of course, not possible to include the full transcripts in the thesis, because they amounted to more than 300 pages. In all, Petersen's presentation of the coding procedures in the thesis involved about 30 pages of text. In other words, she gave considerable attention to this aspect of her study. The purpose of this detailed presentation was to increase the credibility of her analysis by making its logic plain to readers.

Analyzing and Interpreting the Data

Content analysis of the summarized and clarified transcripts yielded many content units for each respondent. Following a procedure resembling analytic induction these were used to build categories and subsequently concepts, one case at a time. A brief summary of the analysis of each case was presented, one after the other, with additions, modifications and clarifications of categories and concepts being explained step by step. After analysis of the tenth interview it became apparent that categories and concepts had become stable, and the set of concepts that had emerged was presented in a single table. Table 9.1 gives examples of Petersen's coding of the interviews. Only a single content unit is given here for each category, but in the actual study there were numerous additional content units defining each category, and in her thesis Petersen gave many examples. Naturally, Petersen also identified more than the three concepts that are presented here.

Table 9.1: Content units, categories and concepts in the interviews with hobby authors

Content Unit	Category	Concept
It helps when others like my ideas I don't like criticism It helps when I talk over my ideas people look up to me I need to tell others what I think	positive feedback negative feedback social support social status communication	**SOCIAL RELATIONS**
I often feel that I can't do it I feel very nervous Many ideas collide with each other I switch to something else	self-doubt anxiety internal conflicts avoidance behaviour	**INTERNAL BLOCKAGES**
Ideas just come from nowhere I just feel an urge to write I write when I feel excited	spontaneous ideation internal drive elevated mood	**INTERNAL IMPULSE**

Developing substantive theory: Returning to the individual transcripts, Petersen described the situation of the members of her group of hobby writers in some detail, structuring this description with the help of the concepts outlined in Table 6.5. Two examples of these descriptions follow:

> ***Multicausal motivation***: "The authors experienced 'multicausal' motivation that was the result of a developmental process going back into childhood. Their ideas sometimes derived from events in the world around them, but sometimes seemed to come from sources inside the individuals, springing into existence in a way that the respondents experienced as spontaneous. The authors often experienced self-doubt or anxiety about the quality of their work, and this led to periods of reflection and doubt. They also experienced fear of being laughed at by other people. However, not only the internal satisfaction of completing a piece of work, but also external rewards, especially praise, helped them keep going. Interactions with other hobby authors, for instance in discussion groups and clubs, provided supportive social contacts."
>
> *This description of the situation of Petersen's respondents goes beyond each individual person's understanding of his or her own specific situation, and constructs a more general picture of the motivation of hobby authors. However, it is still*

focused on the particular group of authors in the study. In this sense it involves only substantive theory.

Petersen continued with her analysis of multicausal motivation, and began to develop an understanding of the processes through which such motivation develops.

Writing and the satisfaction of needs: "The structure of motives of each individual author was complex. All 10 indicated that writing satisfied a combination of needs in the sense of Maslow (e.g., need for belonging and acceptance; need for status; need for self-expression; need for knowledge and understanding; need for self-realization). However, the nature of the combination and the importance of particular needs differed from author to author. Differences between authors seemed to reflect not the existence of different needs in different people, but rather differences from person to person in the pattern of needs, especially the importance of particular needs for an individual person. For instance, feedback from other people was a very important factor, in general. However, how important it was depended on the particular *pattern of needs* of the individual. Those authors who displayed a pattern of motivation emphasizing need for acceptance, status, or mastery were more affected by feedback, while those in whom self-realization was emphasized were less affected by it."

The concept of "pattern" or "profile" is very useful in qualitative studies. It makes it possible to construct more complex statements about kind or style. Petersen's distinction here between two groups of participants involves what is, strictly speaking, a quantitative statement, since it is not based purely on kind of need (i.e., mastery need vs. self-realization), but also includes a statement about the relative strength of the needs (i.e., self-realization was emphasized more than mastery by some people). However, Petersen has avoided using language typical of quantitative studies such as, "The level of self-realization was greater," and has spoken instead of "patterns" (i.e., kind) and of emphasis within a pattern, thus maintaining an essentially qualitative approach. Theorizing in this passage remains substantive, i.e., focused on describing the specific group of participants in this study.

Developing higher-order theory: Petersen then undertook an interesting and useful theoretical interpretation of her findings in which she drew conclusions not just about the people in her study but about the general nature of the development of (a) motivation and (b)

creativity. In other words, she developed higher order theory. Parts of this section of her thesis follow.

> ***Extrinsic vs. extrinsic motivation***: "Amabile's (1983) conclusion that intrinsic motivation is of special significance in creativity is important here. In her own research she showed that authors whose motivation is mainly intrinsic are more creative than those for whom it is mainly extrinsic. The present study neither confirmed nor disconfirmed this conclusion, because it did not look at the creativity of products. However, I have in several places drawn attention to the close links between extrinsic and extrinsic motivation. As far as these two areas are concerned, it is possible to see preferences or leanings in individual authors, but all participants displayed both extrinsic and also intrinsic motivation. This means either that Amabile's assumption that extrinsic motivation blocks intrinsic is not correct, or else that all participants in the present study had developed effective strategies for limiting the effects of extrinsic motivation."
>
> *Petersen begins to consider the implications of her findings for existing theory on motivation for creativity. In doing this, she goes beyond a description of her particular group of participants, i.e., she goes beyond substantive theory to higher order theory. She considers the implications of her findings for Amabile's extremely influential theory, drawing attention to discrepancies between the contents of this theory and certain aspects of her findings. She suggests the need for a* Redefinition *(see p. 156) in this area.*

Petersen continued her consideration of the implications of her findings for the theory of extrinsic/extrinsic motivation, focusing more on the development of motivation.

> ***The dynamics of the "extrinsic constraint"***: "It is also important to mention at this point that the 'extrinsic constraint' that can arise from extrinsic motivation and is regarded by Amabile as extremely inhibiting for creativity was hinted at in a few of the interviews, but clearly was not unfavourable to the degree described by Amabile. This was also true in the case of participants who displayed a clear pattern of extrinsic motivation. … Amabile herself added that there is a not inconsiderable number of contradictory examples for the theory of inhibition of creativity by extrinsic motivation. She attributed these to the ability of the people in question to resist the pressure of extrinsic motivation as well as to the opportunities available to them to avoid situations in which the extrinsic constraint is activated or becomes

particularly strong (Amabile, 1983, S. 96). The ability to avoid inhibition is one of the characteristics of creative people mentioned by Necka (1986). The present findings suggest that there is a continuum of extrinsic constraint and that its inhibiting effect depends upon an interaction between the strength of the constraint and the strategies for coping with the constraint that have been learned by the particular respondent."

Petersen now turns to the theoretical model of a second influential creativity theorist. In doing so she achieves forward incrementation *or* advance forward incrementation *of Amabile's theory*. *In doing so she offers insights leading to a substantial increase in the degree of differentiation of existing theory.*

Working out practical implications: One important aspect of the external validity of qualitative studies involves their ability to generate suggestions for practice. Petersen derived a number of interesting implications from her findings. Initially, the discussion was relatively general.

"Positive feedback was particularly important for the motivation to write, largely because this helped to develop self-confidence. Of great importance was that this positive feedback began in early childhood when the hobby authors first began to express creative ideas. This feedback can be regarded as positive reinforcement in the sense of Bloom (1985). It was particularly effective when the person providing the feedback was someone with high status in the child's eyes (e.g., parents, teachers and close friends), thus confirming the research of Bandura and Walters (1963) on social reinforcement of behaviour. The importance of self-confidence is scarcely surprising in view of the fact that this factor is consistently emphasized by creativity researchers (e.g., Cropley, 1982).

It is important to note that early positive feedback seemed to achieve its effect by making it possible for the authors to tolerate negative feedback or blockages later in life. This is consistent with Maslow's (1981) finding that people who experience satisfaction of a need early in life develop a higher level of tolerance for frustration of that need when they are older: a kind of immunizing or buffering effect. These findings support the view that the development of psychological properties that are favourable for creative writing, and presumably other forms of creativity as well, is positively (or negatively) affected by interactions with other people, and encourages

the hope of educators that the disposition to creativity can be trained."
Petersen goes beyond theory and begins to examine practical aspects of the development of creativity. Her remarks are useful, *because they indicate that parents and teachers can influence the development of creativity. They are also made more* credible *by the fact that she supports them with references to the existing literature.*

Petersen proceeds to more concrete suggestions for practice, focusing in particular on the classroom. Among these is a discussion of extrinsic motivation. Since a world in which there were no external rewards and punishments is almost unimaginable, it seems that extrinsic motivation will remain a fact of real life. As a result, it is highly appropriate to consider how extrinsic motivation and creativity can exist side by side.

"Certain factors seem to be favourable for creative activity, even in the presence of extrinsic rewards and punishments: Among these are high self-confidence, realistic expectations, and highly developed technical skills. On the other hand, there are also other factors that lead to negative effects of extrinsic motivation: for instance, low technical competence, low self-esteem, fear of failure. Taken together with other findings on the influence of childhood events on psychological development, this conclusion emphasizes the importance of appropriate experiences in the classroom. Among other things, these would include provision of opportunities to build up self-confidence through for instance the achieving of success in difficult situations such as examination or competitions, provision of differentiated feedback on the quality of work (including grades), and drill in basic skills."
The positive comments on examinations, grades and basic skills is not only closely practical *but it is also* surprising. *In discussions of creativity such activities are typically rejected as inimical to creativity. Thus, Petersen suggests a* redirection *in thinking on this topic.*

A return to the list of ways in which qualitative research can develop theory given above (see pp. 117-118) shows that Petersen clearly satisfied several of the criteria listed, e.g., redefinition, forward incrementation, advance forward incrementation, redirection. She also satisfied criteria listed in Table 8.4 by suggesting a revised way of thinking about motivation and creativity, and offered ideas capable of generating several hypotheses, even if she did not specifically identify the hypotheses in question. For instance, she suggested that

there are differences in motivation between people who actually write and those who do not, and described the differences in a way capable of being tested in a quantitative study. She also suggested the existence of a connection between childhood experiences, the hierarchy of needs, and adult creativity. This centres on the extent to which security, status and mastery needs are met in childhood, and suggests a hypothesis that could be tested empirically by either quantitative or qualitative research. The suggestions just mentioned also open up new lines of inquiry such as the question of changes in motivation at different stages of the creative process. Indeed, research since Petersen's study (see Cropley, 2001) shows that a number of her suggestions were well grounded.

Two Contrasting Examples

Petersen's study does not represent the only way of going about qualitative research. A second example from a *Diplom* student at the University of Hamburg shows some alternative possibilities. Plate (1997) was interested in "the conditions that make it possible for workers to apply their creativity in job settings." *He states his object of study clearly and in relatively straightforward language.* The first two chapters of his thesis contained a review of the relevant literature on (a) creativity and (b) work settings. On the basis of this review and before talking with any participants at all he worked out concrete questions that he specifically asked in the interviews, unless the respondents answered them without being asked. These included (a) Describe three ideas you have had at work. (b) Where did your best idea come from? (c) What blocked you expressing your idea? (d) What would have happened if you had expressed (implemented) your idea? (e) What would have helped you express your idea? *Plate defined his object of study much more exactly than Petersen, and structured the interviews according to fairly precise* a priori *expectations developed in his review of the relevant literature. It can be seen that he oriented the interviews towards discussion of* blocks *to creativity such as negative consequences of attempting to be creative or missing supportive factors. Implicit in his approach was the image of work as a negative environment for creativity. This reflected the position found in the literature he reviewed.*

Plate tape recorded the interviews and also made notes. The tapes were transcribed and the resulting texts analyzed in order to identify inhibiting or facilitating factors. The content analysis identified only content units relating to blocking factors in the work setting, negative consequences for the respondent of displaying or attempting to implement creativity, and factors that the participants believed would have been facilitating, had they existed (but they did not). *The analysis was highly focused and looked specifically for concepts that Plate's review of existing research indicated would be interesting. There was only limited room for*

emergent *issues (see Chapter 5, p. 78), and these were of interest only when they helped to clarify issues that Plate had decided to concentrate on* a priori.

The results identified two basic kinds of blocking factors: "internal" and "external." Internal factors were essentially psychological in nature: e.g., "image" (respondents' concern about how others saw them), "identification (or not) with the idea," "level of motivation," "willingness (or not) to take risks," and "willingness to risk conflict with colleagues." Factors outside the individual included "goals of the organization," "demand for creativity in the job itself," "opportunities to work without supervision," and "time pressure." In the last chapter of his thesis Plate first used these dimensions to describe the situation of his respondents in a more general way (i.e., he constructed "substantive" theory). He then went on to relate his findings to the original literature he had reviewed in the opening chapters, especially indicating where his findings supported or contradicted existing research findings (higher order theory).
Plate commenced the thesis by developing an a priori *theoretical framework, collected data with a specific orientation based on this framework (this almost involved formulating hypotheses), and coded his data in order to cast light on these expectations, finally returning in the last chapter to a discussion of the degree to which his findings supported existing theory. Thus, his approach had many of the characteristics of* quantitative *research, although it is clear that his design (data collection, analysis and interpretation) was strongly within the qualitative framework .*

Gray and Kunkel's (2001) study of ballet dancers and the way they experience themselves and their profession also demonstrates departures from Petersen's design, as well as from Plate's. Most striking of all, they did not conduct any interviews themselves at all, but carried out a content analysis of interviews found in a book that had already been published a number of years previously by a journalist (Gordon, 1983). This book described Gordon's observations of professional dancers and dance students in New York, Houston and Boston. She observed them in classes, in rehearsals and in social interactions, and recorded what they said and did, i.e., she was a participant observer. She wrote down a large number of *verbatim* statements by the dancers themselves about many aspects of their lives. Gray and Kunkel treated the contents of Gordon's book as though they were in effect a series of interview transcripts. *I have already mentioned the possibility of using various kinds of existing records as a source of data. This would be particularly useful in studies with a historical orientation, since it is in principle possible to examine events of the past in this way. Although it is obvious that the cases studied by Gordon did not constitute a random or stratified sample, it is also*

obvious what object of study they "represented" – ballet dancers' view of their work – and it is hard to deny that they would be likely to know about this subject.

Gray and Kunkel subjected Gordon's text to a content analysis conducted as strictly as possible according to the principles of grounded theory. They focused on finding content units in which the dancers described their own understanding of their professional experiences and of themselves as dancers (as against their views on other aspects of their lives, or statements revealing the perspective of other people such as parents or teachers). They tried to include all content units that satisfied this criterion. Thus, they did not select material on the basis of an *a priori* interest in particular aspects of the dancers' perspective, but they did limit themselves to material that referred to dancing. They identified a total of 167 content units that reflected dancers' constructions of this aspect of their lives. These were used to define categories such as "dancers are an expression of other people's fantasies," "the dancers pay for the viewers' pleasure," or "dancers enter a fantasy realm." The categories defined five concepts: "Fantasy creatures," "Mechanization," "Commodification," "Infantilization," and "Sacrificial transcendence." *Of course, the text analyzed by Gray and Kunkel had already been selected and edited by Gordon. However, this can to some extent be regarded as corresponding to the steps of summarizing and clarifying. It is not known to what extent Gordon focused on areas of special interest to her, but this does not mean that the concepts identified by Gray and Kunkel contain no insights into how dancers construct their own lives.*

Gray and Kunkel described dancers in terms of the concepts just listed ("substantive theory"), and then attempted to relate these categories to psychoanalytic theory, feminism, social psychological models of power relationships, and the like, giving considerable emphasis to issues like object relations, autonomy, individuation and identity. *In doing this they developed higher-order theory that went beyond description of the situation of their dancers and related this to general concepts in psychology. In addition, they helped to clarify the meaning of terms like "autonomy" and the nature of processes like "individuation," by showing how these manifest themselves in a real life situation.*

Finally, the authors discussed the possible role of art as a buffer against the depersonalizing effects in society of advancing technology, and suggested that training of dancers should give more emphasis to "artistic integrity" than is presently the case. *At the end of their report Gray and Kunkel turned to the practical implications of their findings, in particular for the education of dancers, thus attempting to satisfy the criterion of* usefulness.

Literature

Alasuutari, P. (1995). *Researching culture*: *Qualitative method and cultural studies*. London: Sage.

Allport, G. W. (1965). *Letters from Jenny*. New York: Harcourt, Brace and World.

Altheide, D. L. & Johnson, J. M. (1998). Criteria for assessing interpretive validity in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Collecting and interpreting qualitative materials* (pp. 283-312). Thousand Oaks, CA: Sage.

Andersone, M. (2002). *Datorspēles un jauniešu dzīvestils* [Computer games and youth lifestyles]. Riga: Unpublished MA thesis, Department of Sociology, University of Latvia.

Asch, S. E. (1955). Opinions and social pressure. *Scientific American, 193*, 31-35.

Bandura, A. & Walters, R. H. (1963). *Social learning and personality development*. New York: Holt, Rinehart and Winston.

Barthes, R. (1973). *Mythologies*. New York, NY: Hill and Wang.

Bartlett, F. C. (1932). *Remembering: A study in experimental and social psychology*. Cambridge: Cambridge University Press.

Bleicher, J. (1980). *Contemporary hermeneutics: Hermeneutics as method, philosophy and critique*. London, UK: Routledge.

Blumer, H. (1969). *Symbolic interactionism*. Englewood Cliffs, NJ: Prentice-Hall.

Breuer, F., Muckel, P. & Dieris, B. (2018, 3rd ed.). *Reflexive Grounded Theory. Eine Einführung für die Forschungspraxis*. Wiesbaden: Springer.

Briggs, C. (1986). *Learning how to ask: A sociolinguistic appraisal of the role of the interviewer in social science research*. Cambridge: Cambridge University Press.

Bromme, R. & Kienhuis, D. (2017). Gewissheit und Skepsis: Wissenschaftskommunikation als Forschungsthema der Psychologie [Certainty and scepticism: Science communication as the subject of psychological research]. *Psychologische Rundschau, 68*, 167-240.

Bruner, J. S. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.

Bryman, A. & Burgess, R. G. (Eds.). (1994). *Analyzing qualitative data*. London: Routledge.

Buckley, D. L. (1975). *Gymnasium im Wandel*. Weinheim: Beltz.

Casey, E. (1987). *Imagining: A phenomenological study*. Bloomington, IN: Indiana University Press.

Cattell, R. B. (1950). *Personality: a systematic theoretical and factual structure*. New York: McGraw Hill.

Charmaz, K. (2014, 2nd ed.). *Constructing grounded theory. Introducing qualitative methods*. Thousand Oaks, CA: Sage.

Cicourel, A. V. (1974). *Theory and method in a study of Argentine fertiility*. New York: Wiley.

Coghlan, D. (2011). Action research: Exploring perspectives on a philosophy of practical knowing. *Academy of Management Annals*, *5*, 53-87.

Cook, T. D. & Campbell, D. T. (1979). *Quasiexperimentation: Design and analysis issues for field settings*. Boston: Houghton Mifflin.

Corbin, J. L. & Strauss, A. M. (2015, 4th ed.). *Basics of qualitative research: Techniques and procedures for developing grounded theory.* Thousand Oaks, CA: Sage.

Couch, A. & Keniston, K. (1960). Yeasayers and naysayers: Agreeing response set as a personality variable. *Journal of Abnormal and Social Psychology*, *60*, 151-174.

Crang, M., & Cook, I. (2007). *Doing ethnographies*. Thousand Oaks, CA: Sage.

Creswell, J. W., Klassen, A. C., Plano Clark, V. L., and Clegg Smith, K. (2011). *Best practices for mixed-methods research in the health sciences*. Washingon, DC: National Institutes of Health.

Cronbach, L. J. (1980). Validity on parole: How can we go straight? *New directions for Testing and Measurement*, *5*, 99-108.

Cropley, A. J. (2001). *Creativity in education and learning*. London: Kogan Page.

Cropley, A. J. (2002). Problems and concerns of welfare paraprofessionals working with refugees. *British Journal of Social Work, 32,* 233-238.

Cropley, A. J. & Cropley, D. H. (2008). Resolving the paradoxes of creativity: An extended phase model. *Cambridge Journal of Education, 38,* 355-373.

Cropley, A. J. & Cardey, R. M. (1975). Contact with the dominant culture and cognitive competence in Canadian Indians and Whites. *Canadian Journal of Behavioural Science, 7,* 328-338.

Cropley, A. J. und Lüthke, F. (1994). Psychologische Aspekte der Adaptation von Zuwanderern. In: A.J. Cropley, H. Ruddat, D. Dehn & S. Lucassen (Hrsg.), *Probleme der Zuwanderung,* Band 1, *Aussiedler und Flüchtlinge in Deutschland* (S. 19-32). Göttingen: Verlag für Angewandte Psychologie.

Cropley, A. J. & Lüthke, F. (1995). Strategien für die psychologische Beratung von Zuwanderern. In: A.J. Cropley, H. Ruddat, D. Dehn & S. Lucassen (Hrsg.), *Probleme der Zuwanderung,* Band 2, *Theorien, Modelle und Befunde der Weiterbildung* (S.146-160). Göttingen: Verlag für Angewandte Psychologie.

Cropley, D. H. & Cropley, A. J. (2016). Promoting creativity through assessment: A formative CAA tool for teachers. E*ducational Technology*, *56*(6), 17-24.

Crowne, D. P. & Marlowe, D. (1964). *The approval motive: Studies in evaluative dependence,* New York: Wiley

Denzin, N. K. & Lincoln, Y. S. (1998). *Collecting and interpreting qualitative materials*. Thousand Oaks, CA: Sage.

Denzin, N. K. & Lincoln, Y. S. (Eds.) (2017, 5th ed.). *The Sage handbook of qualitative research*. Thousand Oaks, CA: Sage.

Douglas, J. D. (1985). *Creative interviewing*. Newbury Park, CA: Sage.

Ebbinghaus, H. (1983). *Über das Gedächtnis* [1885]. Passau, Germany: Passavia-Universitäts-Verlag.

Elliott, R. (1999). Editor's introduction to special issue on qualitative psychotherapy research: Definitions, themes and discoveries. *Psychotherapy Research, 9*, 251-257.

Ericsson, K. A., Chase, W. G. & Faloon, S. (1980). Acquisition of a memory skill. *Science, 208*, 1181-1182.

Erikson, E. (1968). *Identity, youth and crisis.* New Yuork, NY: Norton.

Fechner, G. (1860). *Elemente der Psychophysik*. Leipzig, Germany: Breitkopf und Härtel.

Festinger, L. (1957). *A theory of cognitive dissonance.* Stanford, CA: Stanford University Press.

Flanders, N. A. (1970). *Analysing teacher behavior*. Reading, MA: Addison-Wesley.

Fontana, A. and Frey, J. H. (1998). Interviewing: The art of science. In N. K. Denzin and Y. S. Lincoln (Eds.), *Collecting and interpreting qualitative materials* (pp. 47-78). Thousand Oaks, CA: Sage.

Freeman, M. (1993). *Rewriting the self: History, memory, narrative*. London: Routledge.

Friedman, H. S., and Schustack, M. W. (2012), *Personality: Classic theories and modern research*, Boston, MA: Pearson Allyn & Bacon.

Freud, S. (1964 [1910]). *Leonardo da Vinci, A memory of his childhood*. Oxford, UK: W. W. Norton.

Gergen, K. J. (1985). The social constructionist movement in modern psychology. *American Psychologist*, 40(3), 266-275.

Geertz, C. (2000). *The interpretation of cultures*. New York, NY: Basic Books.

Glaser, B. G. & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.

Gordon, S. (1983). *Off balance*. New York: Pantheon Books.

Gray, K. M. & Kunkel, M. A. (2001). The experience of female ballet dancers: a grounded theory. *High Ability Studies, 12*, 7-26.

Gunersel, A. B. (2009). A qualitative study of the impact of environmental and personal factors on prominent Turkish writers. *Psychology of Aesthetics, Creativity and the Arts, 3*, 222-231.

Gusdorf, G. (1980). Conditions and limits of autobiography. In J. Olney (Ed.) *Autobiography: Essays theoretical and critical* (pp. 28-48). Princeton, CA: Princeton University Press.

Hamel, J. (1993). *Case study methods*. Thousand Oaks, CA: Sage.

Hammersley, M. (1992). *What's wrong with ethnography?* London, UK: Routledge.

Harris, M. (2006). *Cultural anthropology*. Boston, MA: Allyn and Bacon.

Hawking, S., & Mlodinow, L. (2010). What is reality? In *The grand design* (pp. 39-59). New York, NY: Bantam.

Herborth, B. (2011). Methodenstreit – Methodenzwang - Methodenfetisch. *Zeitschrift für Internationale Beziehungen*, *18*(2), 137–152.

Heron, J. (1992). *Feeling and personhood. Psychology in another key*. London: Sage.

Hofstede, G., Hofstede, G. J., & Minkov, M. (2010, 3rd ed.), *Cultures and organizations: Software of the mind*. New York, NY: McGraw-Hill.

Hollis, M. (1994). *The philosophy of social science*. Cambridge, UK: Cambridge University Press.

Holstein, J. A. & Gubrium, J. F. (2015). *The active interview*. Thousand Oaks, CA: Sage.

Huber, G. L. & Gürtler, L. (2012). *Manual zur Software AQUAD 7* [originally published in 2003]. Tübingen: Ingeborg Huber Verlag.

Jorgensen, D. L. (1989). *Participant observation*. Newbury Park, CA: Sage.

Josselson, R. & Lieblich, A. (1993). A narrative introduction. In R. Josselson & A. Lieblich (Eds.), *The narrative study of lives*, Vol. 1 (pp. ix-xv). Newbury Park, CA: Sage.

Kampylis, P. & Valtanen, J. (2010). Redefining creativity – Analyzing definitions, collocations, and consequences. *Journal of Creative Behavior, 44*, 191-214.

Katz, J. (1983). A theory of qualitative methodology: The social science system of analytic fieldwork. In R. M. Emerson (Ed.), *Contemporary field research* (pp. 127-148). Boston, MA: Little, Brown.

Kelle, U. &Kluge, S. (1999). *Vom Einzelfall zum Typus*. Opladen, Germany: Leske und Budrich.

Knapper, C. K. & Cropley. A. J. (1980). Interpersonal factors in driving. *International Review of Applied Psychology*, *29*, 415-438.

Knapper, C. K. & Cropley, A. J. (1982). Public attitudes to property and property insurance. *International Review of Applied Psychology, 31*, 425-441.

Kromrey, H. (2009). *Empirische Sozialforschung* (12. Aufl.). Stuttgart, Germany: UTB.

Kuckartz, U. (2007). *Einführung in die computergestützte Analyse qualitativer Daten*. Wiesbaden, Germany: VS Verlag.

Kuckartz, A. M., & Kuckartz, U. (2002). Qualitative text analysis with MAXQDA. Downloaded on June 20, 2016 from https://www.researchgate.net/publication/239926542_Qualitative_Text_Analysis_with_MAXQDA

Kvale, S. (1995). The social construction of validity. *Qualitative Inquiry*, *1*(1), 19-40.

Kvale, S. (1996). *InterViews*. Thousand Oaks, CA: Sage.

Lamnek, S. (1988). *Qualitative Sozialforschung. Band 1: Methodologie*. Weinheim, Germany: Psychologie Verlags Union.

Lamnek, S. (1989). *Qualitative Sozialforschung. Band 2: Methoden und Techniken*. Weinheim, Germany: Psychologie Verlags Union.

Leiris, M. (1985). *Das Auge des Ethnographen*. Frankfurt a.M,, Germany: Suhrkamp.

Lewin, K. (1997). Field theory and experiment in social psychology. In D. Cartwright (Ed.), *Field theory in social science: Selected theoretical papers by Kurt Lewin* (pp. 130-154). New York, NY: Harper & Brothers Publishers.

Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Madison, G. B. (1988). *The hermeneutics of postmodernity*. Bloomington, IN: Indiana University Press.

Malinowski, B. (1929). *The sexual life of savages in North-Western Melanesia.* New York: Eugenics Pub. Co.

Maslow, A. H. (1962). *Towards a psychology of being*. Princeton, NJ: Van Nostrand.

Mason, J. (1994). Linking qualitative and quantitative data analysis. In A. Bryman and R. G. Burgess (Eds.), *Analyzing qualitative data* (pp. 89-110). London, UK: Routledge.

Mayring, P. (2008). Q*ualitative Inhaltsanalyse: Grundlagen und Techniken* (10. Auflage). Weinheim, Germany: Beltz.

Meehl, P. E. (1967). Theory-testing in psychology and physics: A methodological paradox. *Philosophy of Science, 34*, 103-115.

Miles, M. B. (1979). Qualitative data as an attractive nuisance. A*dminstrative Science Quarterly, 24*, 590-601.

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis: A sourcebook of new methods*. Beverly Hills, CA: Sage.

Miller, A. I. (2000). *Insights of genius*. Cambridge, MA: MIT Press.

National Centre for Vocational Education Research (2013). *Are we there yet*? Report presented at NCVER National Forum on research findings from the Longitudinal Surveys of Australian Youth (LSAY). Sydney, Australia, Thursday 11 April 2013.

Necka, E. (1986). On the nature of creative talent. In A. J. Cropley, K. K. Urban, H. Wagner, & W. H. Wieczerkowski (Eds.), *Giftedness: A continuing worldwide challenge (pp.* 131-

140). New York: Trillium.

Olney, J. (Ed.). (1980). *Autobiography: Essays theoretical and critical* (pp. 28-48). Princeton, CA: Princeton University Press.

Open Science Collaboration. (2015). Estimating the reproducibility of psychological science. *Science, 349*(6251).

Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Thousand Oaks, CA: Sage.

Petersen, S. (1989). *Motivation von Laienautoren.* Unveröffentlichte Diplomarbeit, Universität Hamburg.

Pike, K. L. (1967). *Language in relation to a unified theory of the structure of human behavior.* The Hague, NL: Mouton.

Plate, M. (1997). *Bedingungen für kreatives Handeln im Beruf.* Unveröffentlichte Diplomarbeit, Universität Hamburg.

Probst, P. (1997). Behinderungsbezogene Gesundheitsschemata bei Eltern autistischer Kinder. *Zeitschrift für klinische Psychologie, Psychiatrie und Psychotherapie*, *41*(1), 1-15.

Riessman, C. K. (1993). *Narrative analysis*. Newbury Park, CA: Sage.

Ravenstein, E. G. (1885). The laws of migration. *Journal of the Statistical Society*, *48*(2), 167-235.

Ricoeur, P. (1991). Narrative identity. *Philosophy Today*, *35*(1), 73-81.

Riddoch, M. J. & Humphreys, G. W. (1987). A case of integrative visual agnosia. *Brain*, *110*(6), 1431-1462.

Ritchie, J. & Spencer, L. (1994). Qualitative data analysis for applied policy research. In A. Bryman and R. G. Burgess (Eds.), *Analyzing qualitative data* (pp. 173-194). London: Routledge.

Rogers, C. R. (1980). *A way of being*. Boston, MA: Houghton Mifflin.

Rosenthal, R. (1976). *Experimenter effects in behavioral research*. New York, NY: Irvington.

Sampson, R. J. & Wilson, W. J. (1995). Toward a theory of race, crime, and urban inequality. In J. Hagen and R. G. Peterson (Eds.), *Crime and inequality* (pp. 37-56). Stanford, CA: Stanford University Press.

Sarbin, T. R. (Ed.). (1986). *Narrative psychology: The storied nature of human conduct*. New York, NY: Prager.

Schaefer, R. (1992). *Retelling a life: Narration and dialogue in psychoanalysis*. New York, NY: Basic Books.

Scheppele, K. L. (2004). Constitutional ethnography: An introduction. *Law & Society Review*, *38*, 389-406.

Sebre, S. (1992). *Autobiographical childhood narratives: Processes of remembering and reconstructing*. Unpublished doctoral dissertation, City University of New York.

Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2014). *Research methods in psychology* (10th ed.). New York, NY: McGraw Hill.

Silvia, P. J., Kaufman, J. C., Reiter-Palmon, R.**,** & Wigert, B. (2011). Cantankerous creativity: Honesty-humility, agreeableness, and the HEXACO structure of creative achievement. *Personality and Individual Differences*, *51***,** 687-689.

Smith, J. K. and Heshusius, L (1986). Closing down the conversation: The end of the qualitative-quantitative debate among educational researchers. *Educational Researcher*, *15*, 4-12.

Spradley, J. (1979). *The ethnographic interview*. New York, NY: Holt, Rinehart and Winston.

Stake, R. E. (1998). Case studies. In N. K. Denzin and Y. S. Lincoln (Eds.), *Strategies of qualitative inquiry* (pp. 86-109). Thousand Oaks, CA: Sage.

Sternberg, R. J., Kaufman, J. C., & Pretz, J. E. (2000). *The creativity conundrum: A propulsion model of types of creative contributions*. New York, NY: Psychology Press.

Strauss, A. and Corbin, J. (1998). *Grounded theory: Grundlagen qualitativer Sozialforschung*. Weinheim, Germany: Beltz.

Strauss, A. and Corbin, J. (1998). Grounded theory methodology. In N. K. Denzin and Y. S. Lincoln, (Eds.). *Strategies of qualitative inquiry* (pp. 158-183). Thousand Oaks, CA: Sage.

Tashakkori, A. and Teddlie, C. (2010). *Sage handbook of mixed methods in social and behavioural research*. Thousand Oaks, CA: Sage.

Taylor, S. J., Bogdan, R., & DeVault, M. (2015). *Introduction to qualitative research methods*. New York, NY: Wiley.

Thomas W. I. and Thomas, D. S. (1928). *The child in America*. New York, NY: Knopf.

Thomas, W. I. and Znaniecki, F. (1927). *The Polish peasant in Europe and America* (2nd ed.). New York, NY: Knopf.

Titchener, E. B. (1912). The schema of introspection. *American Journal of Psychology, 23,* 485-508.

van Maanen, J. (2011). *Tales of the field: On writing ethnography* (2nd ed.). Chicago, IL: University of Chicago Press.

Verplanck, W. S. (1956). The operant conditioning of human motor behavior. *Psychological Bulletin 53*, 70-83.

von Saldern, M. (2001). Klassengröβe. In: D. Rost (Hrsg.), *Handwörterbuch Pädagogische Psychologie* (2. Aufl.) (S. 326-331). Weinheim: Beltz.

Weckowicz, T. H., Younge, K. A., Cropley, A. J. & Muir, W. (1971). Objective therapy predictors in depression. *Journal of Clinical Psychology Monograph Supplement,* 1-27 (Whole No. 31).

Weitzman, E. A. (2000). Software and qualitative research. In N. K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 803-820). Newbury Park, CA: Sage.

Widdershoven, G. A. M. (1993). The story of life: Hermeneutic perspectives on the relationship between narrative and life history. In R. Josselson and A. Lieblich (Eds.), *The narrative study of lives*, Vol. 1 (pp. 1-20). Newbury Park, CA: Sage.

Woodman, R. W. (2014). The science of organizational change and the art of changing organizations. *Journal of Applied Behavioral Science, 50,* 463 –477.

Znaniecki, F. (1935). *The method of sociology*. New York: Holt, Rinehart and Winston.

Appendix A: Checking the quality of a thesis

The criteria that have been outlined earlier in this chapter can be used to check whether a thesis or dissertation possesses at least the *formal* properties needed for its acceptance as a scientific report (i.e., structure, organization, completeness, etc). Of course, satisfying formal or technical criteria does not necessarily mean that the *contents* of a thesis are consistent with scholarly opinion or that the novelty it produces is useful. Elegance, surprisingness, usefulness, and similar properties can only be judged adequately by people who possess the necessary expertise based on knowledge and experience. None the less, if the formal requirements are not satisfied, the document is not ready and should not be submitted. If it has been submitted, it should not be accepted.

The following are questions that students should ask themselves about their own work before submitting it. (The questions can also be adapted for use by supervisors and examiners considering accepting a thesis or grading an assignment.) If the answer to any question is "No," there is a corresponding weakness in the report and serious consideration should be given to revising it.

1. *Specification of the object of interest*: Has the object of interest been clearly specified in easily understandable language in the first page or two? Have you explained the source of your interest in the object? Have you presented the object (at least briefly) as a psychological/educational phenomenon? Have you indicated whether you started the study with any specific expectations? If you did, have you described these, as well as indicating their origin (e.g., previous research, your own intuitions)?
2. *Description of the participants*: Have you described the group of participants demographically and indicated how you obtained their cooperation. Have you described the sample in such a way that it is obvious what they "represent"?
3. *Description of the data collection*: Have you explained what procedure was employed to collect the data (e.g., participant observation, unstructured interview, in-depth interview, etc)? Have you given relevant details such as the question used to start interviews, prompts that were used to structure the interviews, etc? Have you described the circumstances under which the data were collected (e.g., in the participants' homes, at work, with or without other people present, how long the contact with the participants lasted, etc)? Have you explained how the narratives were recorded (e.g., tape recording, notes, minutes)?

4. *Description of the initial data analysis*: Have you explained how the narratives were converted to a written text (e.g., transcription of tape recordings, etc)? Have you explained how you went about the analysis (e.g., according to *a priori* categories or "cold")? If there were *a priori* categories where did they come from (e.g., from existing theory, from a personal interest, from an initial reading through of one or more transcripts)? Was there any summarizing and clarifying? If there was, what rules were used to guide this procedure? Have you given sufficient examples of passages from actual narratives in order for readers to understand what you did and reproduce it (at least approximately), if they wished to?
5. *Description of the content analysis*: Did you follow a procedure resembling analytic induction or grounded theory? In what way did you decide which content units to identify (e.g., all content units referring to the object of interest, an initial theory, a theory formed during the analysis)? Have you given a number of examples of content units from several cases? Have you used content units to form *categories*? Have you named the *categories* you identified and used psychological or educational terminology as much as possible? Have you explained the rationale of your categories? Have you given several examples of content units defining each category (preferably in a table)? Have you combined categories to form *concepts*? Have you given the concepts psychological/educational names? Have you explained the rationale of the concepts?
6. *Formulating theory*: Have you used the concepts identified to develop a general description of the way your object of interest manifests itself in your participants (i.e., substantive theory)? Have you linked this specifically to actual content units and categories? Is this substantive theory couched in scientific language? Does it go beyond what the respondents said? Does it go beyond simple everyday knowledge? Does it *create surprise* by propelling the field (your object of interest)? Have you at least attempted to indicate the significance of your substantive theory for more general psychological or educational knowledge or theory (i.e., higher-order theory)?
7. *Demonstrating usefulness*: Have you discussed the implications of your findings for psychological or educational practice (e.g., childrearing, counselling, therapy, teaching, training, learning, personnel selection, work conditions, etc)?

If you have answered “Yes,” to every question and the “Yes,” is really justified, you should have few problems with your thesis. Remember that this list describes the perfect document: Some deviations from perfection can be tolerated. It should also be borne in mind that weaknesses in one area can, to some extent, be compensated for by strengths in another, especially where a thesis is very strong in some areas. The checklist that follows specifies these criteria more explicitly. I recommend that you use it to check whether you have met the criteria of a rigorous thesis or dissertation.

Checklist		
Specification of the object of interest	**Yes/No**	**Page**
The object of interest has been stated clearly in the first 2 or 3 pages.		
I have explained the source of my interest in the object of study.		
I have stated the object of study in a scientific way.		
I have indicated how I structured the investigation.		
Description of the "sample"		
I have explained in what sense the participants are representative.		
I have described the group of participants demographically.		
I have explained how the participants were recruited.		
Data collection		
I have described the data collection procedure clearly and fully.		
I have explained what setting the data were collected in.		
If there was one, I have described the pilot study.		
If there was a pilot study, I have explained how it is linked to the main study		
I have given a full and detailed description of the collection of data.		
I have explained how the data were recorded.		
Data analysis		
I have explained how the data were turned into a text for analysis.		
I have explained the role of theory in the initial stage of the analysis.		
I have explained where the theoretical structure was derived from.		
I have explained the rules according to which any preliminary "cleaning" of the data occurred		
There are enough concrete examples to make the analysis understandable.		
I have explained the rules for building content units.		
There are enough understandable examples of the coding of data.		
My categories and concepts have scientific names.		
I have explained the logic of the concepts in an understandable way.		

Expansion of knowledge	**Yes/No**	**Page**
I have described the participants and/or the setting in terms of the concepts worked out in the analysis.		
This description goes beyond the statements of the participants and is more than common sense.		
I have developed "substantive" theory.		
I have demonstrated this theory's connection to the content units.		
I have formulated this theory in scientific language.		
I have developed "superordinate" or "higher-order" theory.		
I have demonstrated the links between my theory and existing theory.		
Usefulness and Seminality		
I have given an overview of knowledge about my object of interest.		
I have covered a wide spectrum of relevant material.		
I have established links to everyday life.		
I have worked out the implications of my findings for practice.		
I have made suggestions for further research on my object of interest.		
Beauty	**Yes/No**	
The report is well organized.		
The report is well written.		
I have supported my arguments and descriptions with enough examples.		
My arguments are logical and convincing.		
Creativity		
I have created effective surprise.		
I have propelled the field.		
The following aspects of my report have created effective surprise and propelled the field:		

Appendix B: Helpful introductory texts with a practical orientation

Babbie, E. (2015). *The practice of social research* (14th ed.). Belmont, CA: Wadsworth.
(Good discussion of how to conduct structured interviews.)

Berg, B. L., & Lune, H. (2018). *Qualitative research methods for the social sciences* (9th ed.). Chennai, India: Pearson India.
(Good overview of all the issues touched upon in the present book: very useful as supplementary reading and as a sourcebook for students wishing to go into various issues more deeply.)

Bryman, A. and Burgess, R. G. (Eds.). (1994). *Analyzing qualitative data*. London: Routledge.
(Overview of methods of data analysis.)

Lofland, J., Snow, D. A., Anderson, L., & Lofland, L. H. (2005). *Analyzing social settings: A guide to qualitative observation and analysis* (4th ed.). Belmont, CA: Wadsworth.
(Good discussion of how to conduct unstructured interviews.)

Moustakis, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.
(Very detailed description of hermeneutic methods.)

Silverman, D. (2013). *Doing qualitative research – a practical handbook* (4th ed.). Thousand Oaks, CA: Sage.
(An introduction containing separate chapters on special topics such as using computers in data analysis.)

Smith, J. A., Harré, R. and van Langenhove, L. (1995). (Eds.). *Rethinking methods in psychology*. Thousand Oaks, CA: Sage.
(An introduction with a psychological orientation that contains separate chapters on, for instance, semi-structured interviews.)

Stewart, D. and Shamdasani, P. (2014). *Focus groups: Theory and practice* (3rd ed.). Newbury Park, CA: Sage.

Yin, R. K. (2017). *Case study research and applications: Design and methods* (6th ed.). Thousand Oaks, CA: Sage.