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# RESEARCH METHODS

FOR BUSINESS STUDENTS

NINTH EDITION

MARK N. K. SAUNDERS  
PHILIP LEWIS  
ADRIAN THORNHILL



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# **Research Methods for Business Students**



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# RESEARCH METHODS FOR BUSINESS STUDENTS

**NINTH EDITION**

**MARK N.K. SAUNDERS  
PHILIP LEWIS • ADRIAN THORNHILL**



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First published under the Pitman Publishing imprint in 1997  
Then published 2000, 2003, 2007, 2009, 2012 (print), 2016, 2019 (print and electronic)  
**Ninth edition published 2023** (print and electronic)

© Pearson Professional Limited 1997  
© Pearson Education Limited 2000, 2003, 2007, 2009, 2012, 2016  
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ISBN: 978-1-292-40272-7 (print)  
978-1-292-40273-4 (PDF)  
978-1-292-40274-1 (ePub)

**British Library Cataloguing-in-Publication Data**

A catalogue record for the print edition is available from the British Library

**Library of Congress Cataloging-in-Publication Data**

Names: Saunders, M. N. K., author. | Lewis, Philip, 1945- author | Thornhill, Adrian, author

Title: Research methods for business students / Mark N. K. Saunders, Philip Lewis, Adrian Thornhill.

Description: Ninth edition. | Harlow, England ; New York : Pearson, 2023.

| Includes bibliographical references and index.

Identifiers: LCCN 2022042532 (print) | LCCN 2022042533 (ebook) | ISBN 9781292402727 (paperback) | ISBN 9781292402734 (pdf) | ISBN 9781292402741 (epub)

Subjects: LCSH: Business—Research. | Business—Research—Data processing.

Classification: LCC HD30.4 .S28 2023 (print) | LCC HD30.4 (ebook) | DDC 650.072—dc23/eng/20221107

LC record available at <https://lccn.loc.gov/2022042532>

LC ebook record available at <https://lccn.loc.gov/2022042533>

10 9 8 7 6 5 4 3 2 1  
27 26 25 24 23

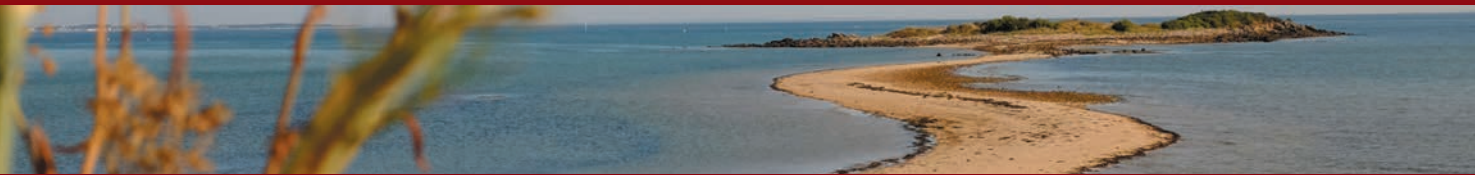
Cover design: Michelle Morgan

Cover image: © 2022 Mark N.K. Saunders, Île de Stuhan, La Trinité-sur-Mer, Brittany, France

Print edition typeset in 9.5/12 ITC Slimbach Std by Straive

Printed in Slovakia by Neografia

NOTE THAT ANY PAGE CROSS REFERENCES REFER TO THE PRINT EDITION



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## How to use this book

This book is written with a progressive logic, which means that terms and concepts are defined when they are first introduced. One implication of this is that it is sensible for you to start at the beginning and to work your way through the text, various boxes, self-check questions, review and discussion questions, case studies and case study questions. You can do this in a variety of ways depending on your reasons for using this book. However, this approach may not be suitable for your purposes, and you may wish to read the chapters in a different order or just dip into particular sections of the book. If this is true for you then you will probably need to use the glossary to check that you understand some of the terms and concepts used in the chapters you read. Suggestions for three of the more common ways in which you might wish to use this book follow.

### As part of a research methods course or for self-study for your research project

If you are using this book as part of a research methods course the order in which you read the chapters is likely to be prescribed by your tutors and dependent upon their perceptions of your needs. Conversely, if you are pursuing a course of self-study for your research project, dissertation or consultancy report, the order in which you read the chapters is your own choice. However, whichever of these you are, we would argue that the order in which you read the chapters is dependent upon your recent academic experience.

For many students, such as those taking an undergraduate degree in business or management, the research methods course and associated project, dissertation or consultancy report comes in either the second or the final year of study. In such situations it is probable that you will follow the chapter order quite closely (see Figure P.1). Groups of chapters within which we believe you can switch the order without affecting the logic of the flow too much are shown on the same level in this diagram and are:

- those associated with obtaining or collecting data (Chapters 8, 9, 10 and 11);
- those associated with data analysis (Chapters 12 and 13).

Within the book we emphasise the importance of beginning to write early on in the research process as a way of clarifying your thoughts. In Chapter 1 we encourage you to keep a reflective diary, notebook or journal throughout the research process so it is helpful to read this chapter early on. We recommend you also read the sections in Chapter 14 on writing prior to starting to draft your critical review of the literature (Chapter 3).

Alternatively, you may be returning to academic study after a gap of some years, to take a full-time or part-time course such as a Master of Business Administration, a Master of Arts or a Master of Science with a Business and Management focus. Many students in such situations need to refresh their study skills early in their programme, particularly

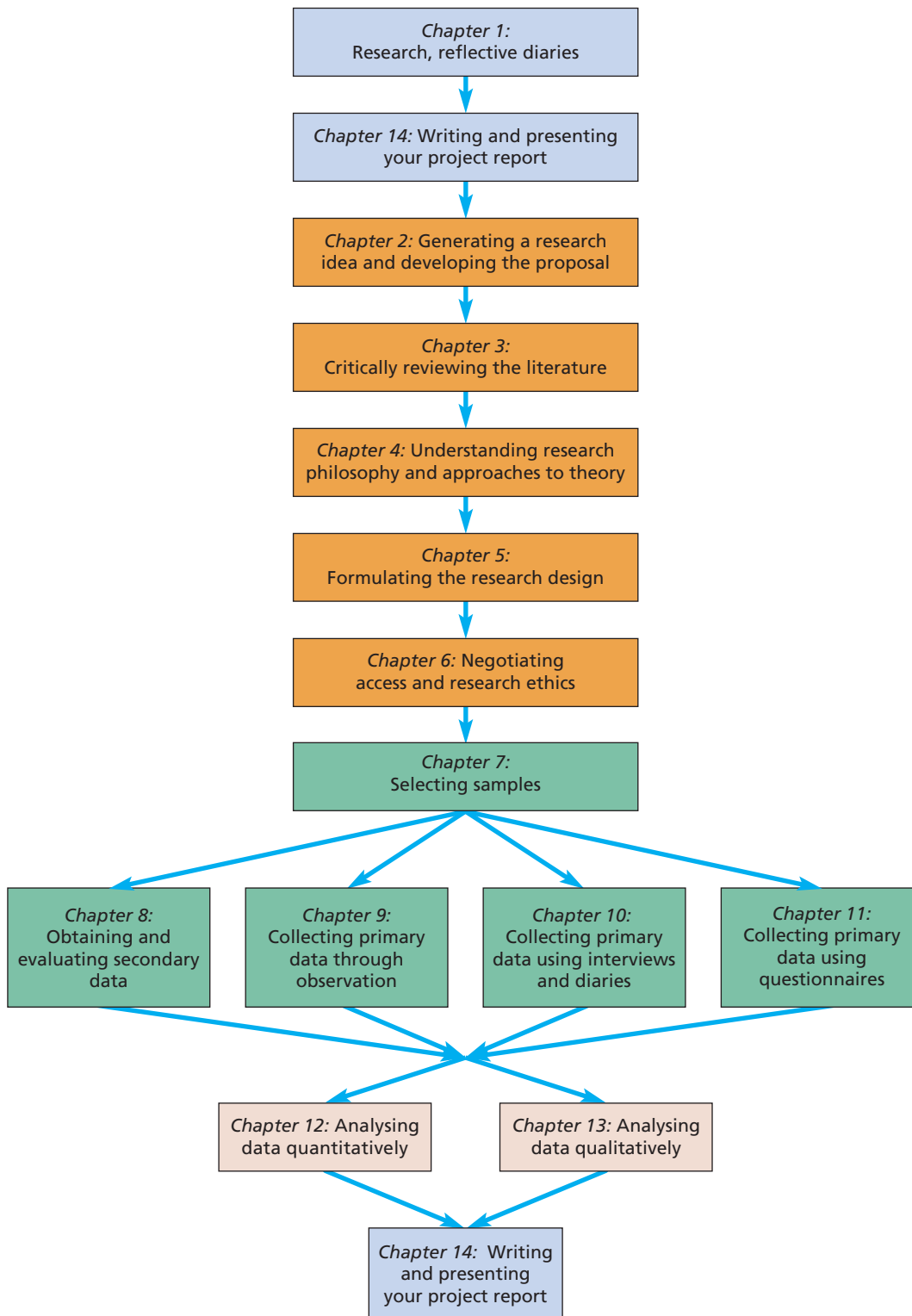
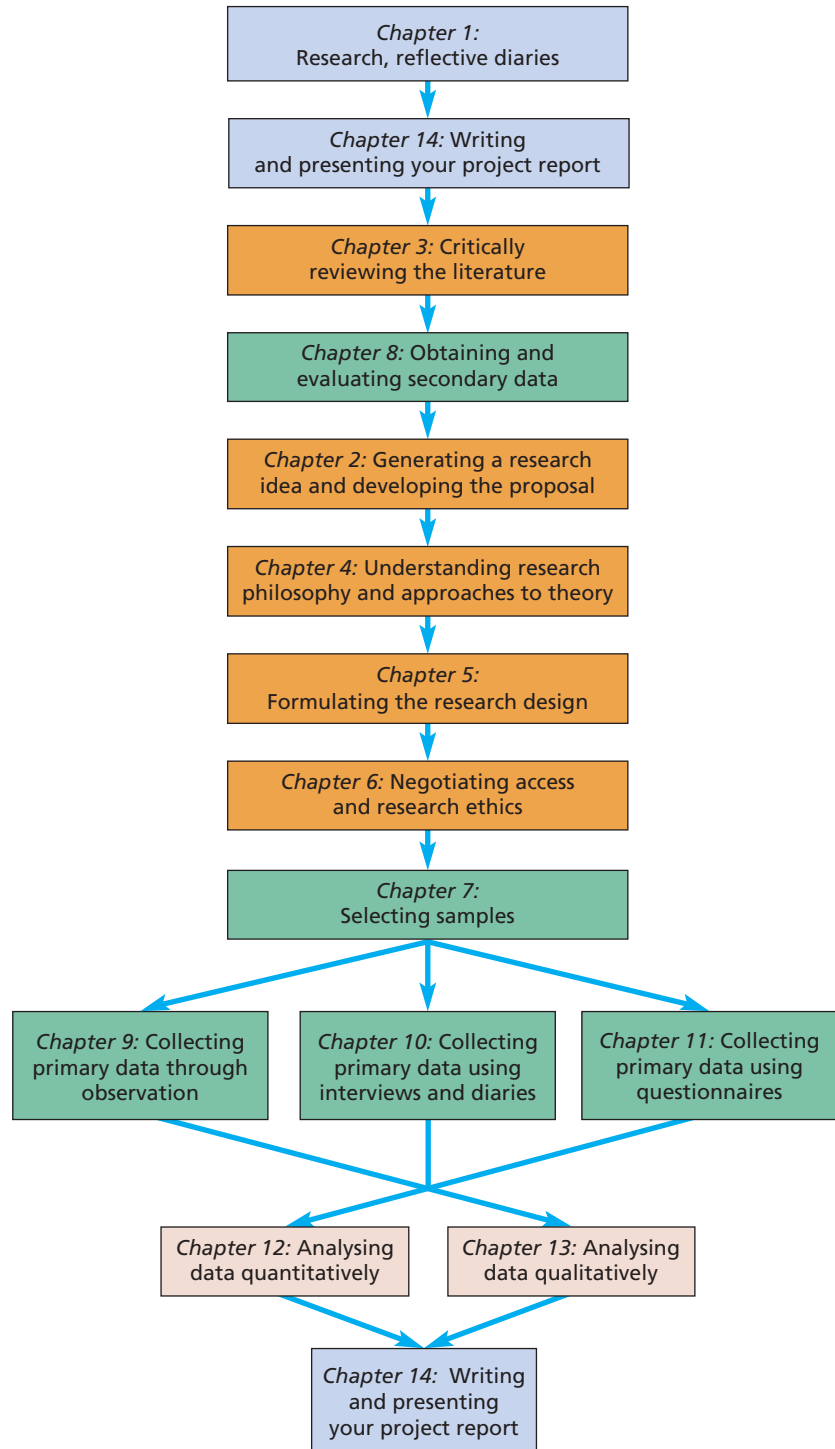


Figure P.1 Using this book for your research methods course and associated project

those associated with critical reading of academic literature and academic writing. If you feel the need to do this, you may wish to start with those chapters that support you in developing and refining these skills (Chapters 3 and 14), followed by Chapter 8, which introduces you to the range of secondary data sources available that might be of use for other assignments (Figure P.2). Once again, groups of chapters within which we believe



**Figure P.2** Using this book as a returner to academic study

you can switch the order without affecting the logic of the flow too much are shown on the same level in the diagram and are:

- those chapters associated with primary data collection (Chapters 9, 10 and 11);
- those associated with data analysis (Chapters 12 and 13).

In addition, we would recommend that you re-read Chapter 14 prior to starting to write your project report, dissertation or consultancy report, or if you need to undertake a presentation.

In whichever order you choose to read the chapters, we would recommend that you attempt all the self-check questions, review and discussion questions and those questions associated with the case studies. Your answers to the self-check questions can be self-assessed using the answers at the end of each chapter. However, we hope that you will actually attempt each question prior to reading the answer! If you need further information on an idea or a technique, then first look at the references in the further reading section.

At the end of each chapter, the section headed 'Progressing your research project' lists a number of tasks. Such tasks might involve you in just planning a research project or, alternatively, designing and distributing a questionnaire of your own. They all include making an entry in your reflective diary or notebook. When completed, these tasks will provide a useful aide-mémoire for assessed work (including a reflective essay or learning log) and can be used as the basis for the first draft of your project report. It is worth pointing out here that many consultancy reports for organisations do not require you to include a review of the academic literature.

## As a guide through the research process

If you are intending to use this book to guide you through the research process for a research project you are undertaking, such as your dissertation, we recommend that you read the entire book quickly before starting your research. In that way you will have a good overview of the entire process, including a range of techniques available, and will be better able to plan your work.

After you have read the book once, we suggest that you re-read Section 1.5 on keeping a reflective diary or notebook and Sections 14.2–14.10 on writing first. Then work your way through the book again following the chapter order. This time you should attempt the self-check questions, review and discussion questions and those questions associated with each case study to ensure that you have understood the material contained in each chapter prior to applying it to your own research project. Your responses to self-check questions can be assessed using the answers at the end of each chapter.

If you are still unsure as to whether particular techniques, procedures or ideas are relevant, then pay special attention to the 'Focus on student research', 'Focus on management research' and 'Focus on research in the news' boxes. 'Focus on student research' boxes are based on actual students' experiences and illustrate how an issue has been addressed or a technique or procedure used in a student's research project. 'Focus on management research' boxes discuss recent research articles in established refereed academic journals, allowing you to see how research is undertaken successfully. These articles are easily accessible via the main online business and management databases. 'Focus on research in the news' boxes provide topical news stories of how particular research techniques, procedures and ideas are used in the business world. You can also look in the 'Further reading' for other examples of research where these have been used. If you need further

information on an idea, technique or procedure then, again, start with the references in the further reading section.

Material in some of the chapters is likely to prove less relevant to some research topics than others. However, you should beware of choosing techniques because you are happy with them, if they are inappropriate. Completion of the tasks in the section headed 'Progressing your research project' at the end of Chapters 2–13 will enable you to generate all the material that you will need to include in your research project, dissertation or consultancy report. This will also help you to focus on the techniques and ideas that are most appropriate to your research. When you have completed these tasks for Chapter 14 you will have written your research project, dissertation or consultancy report and also prepared a presentation using slides or a poster.

## As a reference source

It may be that you wish to use this book now or subsequently as a reference source. If this is the case, an extensive index will point you to the appropriate page or pages. Often you will find a 'checklist' box within these pages. 'Checklist' boxes are designed to provide you with further guidance on the particular topic. You will also find the contents pages and the glossary useful reference sources, the latter defining over 750 research terms. In addition, we have tried to help you to use the book in this way by including cross-references between sections in chapters as appropriate. Do follow these up as necessary. If you need further information on an idea or a technique then begin by consulting the references in the further reading section. Wherever possible we have tried to reference books that are in print and readily available in university libraries and journal articles that are in the major business and management online databases.

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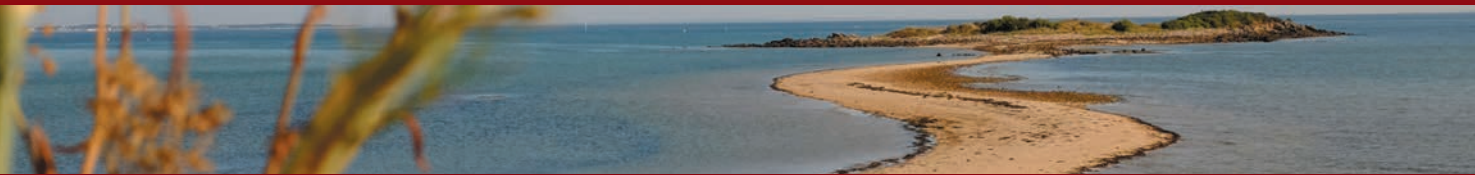
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## Preface

In writing the ninth edition of *Research Methods for Business Students* we have, alongside the many comments we have received regarding previous editions, considered the implications of the Covid-19 pandemic for undertaking research. The pandemic invariably caused us to adapt the way we do research posing new challenges for gaining access and recruiting people to take part, and in the collecting of data (Nind et al., 2021). Alongside an already growing use of online questionnaires, there was a shift from face-to-face to online and telephone interviews. The former of these made considerable use of cloud based video-conferencing and the latter computer assisted telephone interviewing. Ethnographic, diary and other expressive methods were also used more widely.

In response to these challenges and over developments we have fully revised the book, expanding our consideration of online, ethnographic, diary and other expressive methods and the analysis of the resulting data. In particular: Chapter 1 now includes a discussion of responsible business research; Chapter 2 contains considerably more detail on developing research questions including using the AbC (Abstract, Context) rule; Chapter 4 now considers the interrelationships between paradigms and philosophies in more depth; Chapter 5 now considers engaged scholarship; Chapter 6 now considers Internet mediated access and associated issues of ethics in more detail; Chapter 7 discusses using purchased database lists and volunteer panels alongside more detailed discussions of sample size; Chapter 9 contains enlarged sections on using researcher and informant created videos, static images and audio recordings in observation; Chapter 10 has a new section on evaluating interview practice looking at conversational space mapping and language cleanliness; Chapter 11 now provides an overview of scale development; Chapter 13 includes more detail on transcription and thematic coding, including using the Gioia method; Chapter 14 includes more detailed advice regarding using quotations from transcripts, diaries and other documentary data, as well as on poster design; and we have developed further the Glossary, which now includes over 750 research-related terms. New case studies at the end of each chapter have been developed with colleagues, providing up-to-date scenarios through which to illustrate issues associated with undertaking research. Alongside this we have also taken the opportunity to update many examples and revise the tables of Internet addresses.

As in previous editions, we have taken a predominantly non-software-specific approach in our discussion of methods. By doing this, we have been able to focus on the general principles needed to utilise a range of analysis software and the Internet effectively for research. However, recognising that many students have access to sophisticated data collection and analysis software and may need help in developing these skills, we continue to provide access to up-to-date 'teach yourself' guides to Qualtrics™, IBM SPSS Statistics™, Excel™ and Internet searching via the book's website ([www.pearsoned.co.uk/saunders](http://www.pearsoned.co.uk/saunders)). Where appropriate, these guides are provided with data sets. In the preparation of the ninth edition we were fortunate to receive considerable feedback from colleagues and students

in universities throughout the world. We are extremely grateful to all the reviewers who gave their time and shared their ideas.

Inevitably, the body of knowledge of research methods has developed further since 2019, and we have revised all chapters accordingly. Our experiences of teaching and supervising students and working through the methods in classes have suggested alternative approaches and the need to provide alternative material. Consequently, we have taken the opportunity to update and refine existing worked examples, remove those that were becoming dated, and develop new ones where appropriate. However, the basic structure remains much the same as the previous eight editions.

Other minor changes and updating have been made throughout. Needless to say, any errors of omission and commission continue to remain our responsibility.

As with previous editions, much of our updating has been guided by comments from students and colleagues, to whom we are most grateful. We should like particularly to thank students from University of Birmingham, and various Doctoral Symposiums for their comments on all of the chapters. Colleagues in both our own and other universities have continued to provide helpful comments, advice and ideas. We are particularly grateful to Heather Cairns-Lee, Zeineb Djebali, Colin Hughes, Emrah Karakaya, Juliet Kele, Amanda Lee, Ben Saunders, and Nicholas Wheeler for their insightful comments and help with early drafts of chapters. Colleagues and friends again deserve thanks for their assistance in providing examples of research across the spectrum of business and management, co-authoring chapters, writing case studies and in reviewing parts of this book: Neve Abgeller, Mina Beigi, Alexandra Bristow, Clare Burns, Catherine Cassell, Fariba Darabi, Viktor Dörfler, Adina Dudau, Sarah Forbes, Mat Hughes, Joséphine Lapointe, Natasha Mauthner, Megane Miralles, Emily Morrison, Trevor Morrow, Shahrzad Nayyeri, Jonathan Scott, Maura Sheehan, Melika Shirmohamma, Marc Stierand and Catherine Wang.

We would also like to thank all of the staff at Pearson (both past and present) who supported us through the process of writing the ninth edition. Our thanks go, in particular, to Vicky Tubb, our commissioning editor, and Kay Richardson our online content developer for their continuing support and enthusiasm throughout the process. We would also like to express our thanks to Andrew Muller as content producer and as copy-editor.

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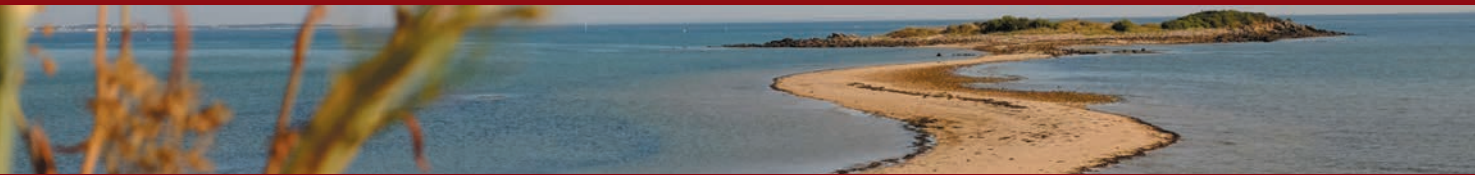
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## Reference

Nind, M., Coverdale, A. and Meckin, R. (2021) *National Centre for Research Methods: Changing Social Research Practices in the Context of Covid-19: Rapid Evidence Review*. UKRI Economic and Social Research Council. Available at: [https://eprints.ncrm.ac.uk/id/eprint/4458/1/NCRM%20Changing%20Research%20Practices\\_Rapid%20Evidence%20Review\\_FINAL%20REPORT.pdf](https://eprints.ncrm.ac.uk/id/eprint/4458/1/NCRM%20Changing%20Research%20Practices_Rapid%20Evidence%20Review_FINAL%20REPORT.pdf) [Accessed 1 March 2022]



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# Chapter 1



## Research, reflective diaries and the purpose of this book

### Learning outcomes

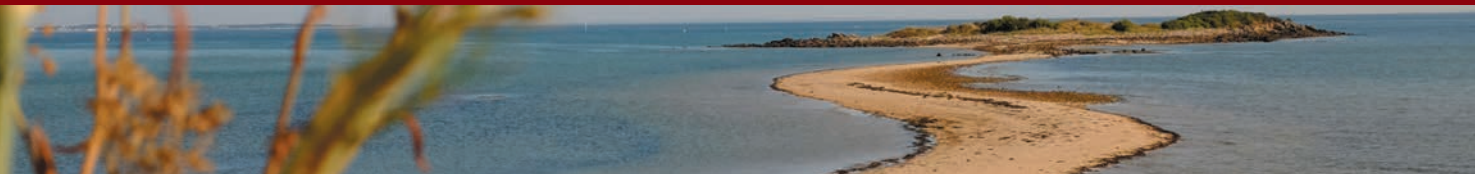
By the end of this chapter you should be able to:

- define the nature of research;
- outline the features of business and management research;
- recall the stages you will need to complete (and revisit) as part of your research process;
- understand the importance of keeping a reflective diary;
- recognise the purpose, structure and features of this book;
- progress your research project by starting to make entries in your reflective diary or notebook.

### 1.1 Introduction

This book is designed to help you to undertake your research project, whether you are an undergraduate or postgraduate student of business and management or a practising manager. It provides a clear guide on how to undertake research as well as highlighting the realities of undertaking research, including the more common pitfalls. The book will provide you with the necessary knowledge and skills to undertake a piece of research from first thoughts about a potential research topic to writing your project report and delivering an oral presentation. As such, you will find it useful as a manual or handbook on how to tackle your research project.

After reading the book you will understand what it means to review the literature critically; have been introduced to research philosophies and approaches to reasoning; explored a range of strategies, techniques and procedures with which you could collect and analyse data; and considered how to report and present your research. Of equal importance, you will know that there is no one best way for undertaking all research. Rather you will be aware of the choices you will have to make and how these will impact upon what you can find out. This means you will be able to make a series of informed choices including your research philosophy, approaches to reasoning, strategies, techniques and procedures that are most suitable to your own research project and be able to justify them. In reading the book you will have been introduced to the

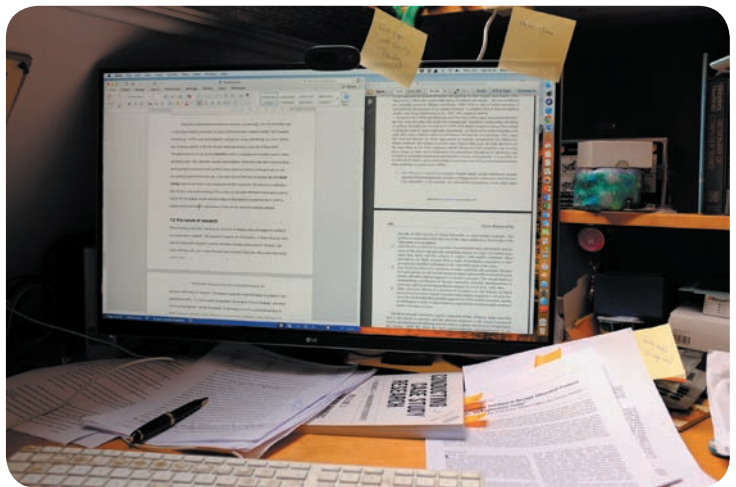


wealth of data that are available online, both online and face-to-face procedures for collecting your own data and techniques for analysing different types of data, have had a chance to practise them, and be able to select and justify which to use.

### The invention of Post-it® notes

The Post-it® note is one of the best-known and most widely used office products in the world. Yet, despite the discovery of the repositionable adhesive that made the Post-it® note possible in 1968, it was not until 1980 that the product was introduced to the market (Post-it® 2022). In the 1960s, 3M research scientist Spencer Silver was looking for ways to improve the adhesive used in tapes. However, he discovered something quite different from what he was looking for, an adhesive that did not stick strongly when coated onto the back of tapes! What was unclear was how it might be used. Over the next five years he struggled to find a use for his new adhesive, talking about it and its merits to colleagues whenever possible. He became known as 'Mr Persistent' because he would not give up!

Most people working for 3M know the story of what happened next and how the Post-it® note concept came about. A new product development researcher working for 3M, Art Fry, was frustrated by how the scraps of paper he used as bookmarks kept falling out of his church choir hymn book. He realised that Silver's adhesive would mean his bookmarks would not fall out. Soon afterwards the Post-it® note concept was developed and market research undertaken. This was extremely difficult as the product was



Post-it® notes in use

Source: © Mark NK Saunders 2018

revolutionary and was, in effect, designed to replace pieces of torn scrap paper! However, despite some initial scepticism within the company, Post-it® notes were launched in 1980. One year after their launch, they were named 3M's outstanding new product.

While your research project will be within the business and management discipline rather than natural science (such as developing a new adhesive), our opening vignette still offers several insights into the nature of research and in particular the business and management research you will be undertaking. It highlights that when undertaking research we should be open to finding the unexpected and how sometimes the applicability of our research findings may not be immediately obvious. It also emphasises the importance of discussing your ideas with other people.

However, a word of caution before you continue. In your study, you will inevitably read a wide range of books and articles. In many of these the terms ‘research method’ and ‘research methodology’ will be used interchangeably, perhaps just using methodology as a more verbose way of saying method. In this book we have been more precise in our use of these terms. Throughout the book we use the term **method** to refer to a procedure or technique used to obtain and analyse data. This, therefore, includes questionnaires, observation and interviews as well as both quantitative (statistical) and qualitative (non-statistical) analysis techniques and, as you have probably gathered from the title, is the main focus of this book. In contrast, the term **methodology** refers to the theory of how research should be undertaken. We believe it is important that you have some understanding of this so that you can make informed choices about your research. For this reason, we also discuss a range of philosophical assumptions upon which research can be based and the implications of these for the method or methods adopted.

## 1.2 The nature of research

When browsing social media, listening to the radio, watching television, listening to the radio or reading a daily newspaper it is difficult to avoid the term ‘research’. The results of ‘research’ are all around us. A debate about the findings of a recent poll of people’s opinions inevitably includes a discussion of ‘research’, normally referring to the way in which the data were collected. Politicians often justify their policy decisions on the basis of ‘research’. Newspapers report the research findings of academics and organisations (Box 1.1). Documentary programmes tell us about ‘research findings’ and advertisers may highlight the ‘results of research’ to encourage you to buy a particular product or brand. However, we believe that what these examples really emphasise is the wide range of meanings given to the term ‘research’ in everyday speech.

Walliman (2020) argues that many of these everyday uses of the term ‘research’ are not research in the true meaning of the word. As part of this, he highlights ways in which the term is used wrongly:

- just collecting facts or information with no clear purpose;
- reassembling and reordering facts or information without interpretation;
- as an activity with no or little relevance to everyday life;
- as a term to get your product or idea noticed and respected.

The first of these highlights that, although research often involves the collection of information, it is more than just reading a few books or articles, talking to a few people or asking people questions. While collecting data may be part of the research process, if it is not undertaken in a systematic way and without a clear purpose, it will not be seen as research. The second of these is commonplace in many reports. Data are collected, perhaps from a variety of different sources, and then assembled in a single document with the sources of these data listed without any explanation of what the data means. In other words, there is no interpretation of the data collected. Again, while the assembly of data from a variety of sources may be part of the research process, without interpretation it is not research. The third emphasises, as shown in the opening vignette, how despite research often appearing abstract, it influences our daily lives and creates our understanding of the world. Finally, the term ‘research’ can be used to get an idea or product noticed by people and to suggest that people should have confidence in it. In such instances, when you ask for details of the research process, these are either unclear or not forthcoming.



## Box 1.1 Focus on research in the news

### What would persuade you to change?

## ‘Megastudies’ are teasing out what helps people to behave differently

By Andrew Hill

Gym members are ‘the fruit fly of habit research’, in the words of behavioural scientist Katy Milkman.

Natural scientists keep coming back to experiment on the flies because the insects share 60 per cent of their DNA with humans. Similarly, social scientists swarm around gym users, or at least their data, to work out why people stick with, or drop, healthy workout habits.

Milkman is both a gym-goer and, as a professor at the Wharton School of the University of Pennsylvania, an avid student of other people’s gym-going habits. Her interest goes well beyond the locker room, though. Find the key to good repeat behaviour, she suggests, and you can use it to unlock motivation at work or in your studies or build a better and more productive business.

Milkman and Angela Duckworth, best known for her work on ‘grit’ and the book of the same name, organised a ‘megastudy’ in partnership with the 24-Hour Fitness chain, simultaneously testing on its 60,000 members, 54 four-week micro-interventions suggested by dozens of scientists.

Of the ideas they tested, 45 per cent increased weekly gym visits by between 9 and 27 per cent, according to the study, recently published in the journal *Nature*. All the ideas outperformed a placebo control programme.

The most effective nudge turned out to be the offer of a few pennies of reward, in the form of Amazon vouchers, for users who returned to the gym after missing a session. The study also tested ‘temptation bundling’, based on ideas Milkman explored in previous research looking at how people are encouraged to go to the gym if they combine visits with the opportunity to listen to favourite audiobooks. Persuasion expert Robert Cialdini, bestselling author of *Influence*, proposed an experiment that successfully demonstrated the power of simply informing users that most Americans were exercising, and numbers were growing. The technique boosted gym visits by 24 per cent.

The willing participation of Milkman and Duckworth’s gym-going ‘fruit flies’ is only a start. Megastudies are planned or under way to look at how teachers can improve the performance of their pupils, universities can retain students, people can create emergency savings pots, societies can reduce misinformation and – critically during Covid-19 – patients can be encouraged to consider vaccination.

In *How to Change*, Milkman poses this question: ‘If you can’t persuade people to alter their behaviour by telling them that change is simple, cheap and good for them, what magical ingredient will do the trick?’ Megastudies could open a fast track to find the magic spell.



Source: Abridged from the article by Andrew Hill, *Financial Times*, 10 February 2022.  
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Based upon this brief discussion we can already see that research has several characteristics:

- The purpose, to find out things, is stated clearly.
- The data are collected systematically.
- The data are interpreted systematically.

We can therefore define **research** as a process that is undertaken in a systematic way with a clear purpose, to find things out. Two phrases are important in this definition: ‘systematic way’ and ‘to find out things’. ‘Systematic way’ suggests that research is based on logical relationships and not just beliefs (Ghauri et al. 2020). As part of this, your research will involve an explanation of the method or methods used to collect the data, will argue why the results obtained are meaningful and will explain any limitations that are associated with them. ‘To find out things’ suggests there are a multiplicity of possible purposes for your research. It is therefore an activity that has to be finished at some time to be of use. This will undoubtedly be true for your research project, which will have a specific deadline. Purposes are often stated as describing, explaining, understanding, criticising and analysing (Ghauri et al. 2020). Crucially, it also emphasises you have a clear purpose or set of ‘things’ that you want to find out, such as the answer to a question or number of questions or the solution to a problem.

### 1.3 Business and management research

Using our earlier definition of research we can define business and management research as undertaking systematic research to find out things about business and management. Ongoing debate within the literature has explored the transdisciplinary nature of business and management research, its relevance and utility to society, the importance of rigorous methods and, more recently, the need for responsible research in business and management (McKiernan and Tsui 2020).

#### Trans disciplinaryity

Discussions about the nature of management research consider the transdisciplinary nature revealing how it also draws on knowledge from a range of other disciplines such as sociology, psychology and economics, which have differing underlying assumptions. They emphasise that the research ‘cannot be reduced to any sum of parts framed in terms of contributions to associated disciplines’ (Tranfield and Starkey 1998: 352). In other words, using knowledge from a range of disciplines enables management research to gain new insights that cannot be obtained through using these disciplines separately.

#### Relevance and utility

Debates about the relevance and utility of management research highlight a belief that it should have the potential for some form of practical consequences. In other words, it should be relevant to and have the potential to impact upon business and management practice. Here it has been argued that such research should complete a virtuous circle of theory and practice (Tranfield and Starkey 1998) through which research on managerial practice informs practically derived theory. This in turn becomes a blueprint for managerial practice, thereby increasing the stock of relevant and practical management

knowledge. Thus, business and management research needs to engage with both the world of theory and the world of practice. Consequently, the problems addressed should grow out of interaction between these two worlds rather than on their own. This suggests that managers are less likely to allow research access unless they can see the utility for their organisations or themselves.

## Rigour

Alongside the relevance debate has been a concern for rigour in both quantitative and qualitative methods. An article by Hodgkinson et al. (2001) offers a useful four-fold taxonomy for considering relevance and rigour in relation to managerial knowledge. Using the dimensions of theoretical and methodological rigour, and of practical relevance (as discussed earlier) they identify four quadrants (see Table 1.1). Within this, **theoretical rigour** refers to the clarity and thoroughness with which the research as reported is grounded in existing explanations of how things work. Although part of the same dimension, **methodological rigour** refers to the strength and quality of the research method used in terms of the planning, data collection, data analysis and subsequent reporting; and therefore the confidence that can be placed in the conclusions drawn. Hodgkinson et al. argue that pedantic science is characterised by a focus on increasing methodological rigour at the expense of results that are relevant. This can sometimes be found in refereed academic journals. In contrast, popularist science is characterised by a focus on relevance and usefulness while neglecting theoretical and methodological rigour, examples being found in some books targeted at practising managers. Consequently, while findings might be useful to managers, the research upon which they are based is unlikely to be valid or reliable. Puerile science both lacks methodological rigour and is of limited practical relevance and, although unlikely to be found in refereed academic journals, can be found in other media. Finally, pragmatic science is both theoretically and methodologically rigorous and relevant.

## Modes of research

Over the past two decades, debate about the nature of management research has focused on how it can meet the double hurdle of being both theoretically and methodologically rigorous, while at the same time embracing the world of practice and being of practical relevance (Hodgkinson et al. 2001; Wensley 2011); practice being reframed recently more broadly than just the world of practice to being socially useful (Hodgkinson and Starkey 2011) and impactful (MacIntosh et al. 2017). Recognising a lack of relevance for much research, debate centred initially around the work by Gibbons et al. (1994) on the

**Table 1.1** A taxonomy for considering the 'relevance gap' in relation to managerial knowledge

Theoretical and methodological rigour	Practical relevance	Quadrant
Higher	Lower	Pedantic science
Lower	Higher	Popularist science
Lower	Lower	Puerile science
Higher	Higher	Pragmatic science

Source: Developed from Hodgkinson et al. (2001)

production of knowledge and, in particular, the concepts of Mode 1 and Mode 2 knowledge creation. **Mode 1** knowledge creation emphasises research in which the questions are set and solved by academic interests, emphasising a basic rather than applied nature, where there is little, if any, focus on utilisation of the research by practitioners. In contrast, **Mode 2** emphasises a context for research governed by the world of practice, highlighting the importance of collaboration both with and between practitioners (Starkey and Madan 2001) and the need for the production of practical relevant knowledge. Based upon this, Starkey and Madan (2001) observe that research within the Mode 2 approach offers a way of bringing the knowledge created in universities together with the needs of businesses, thereby overcoming the double hurdle. Bresnen and Burrell (2012: 25) suggest a further alternative, which they consider is a 'more insidious' form of knowledge production. This form, termed **Mode 0** knowledge creation, they argue has been around since the seventeenth century. It refers to knowledge production based on power and patronage, being particularly visible in the close relationships between sponsor and researcher, for example pharmaceutical industry sponsorship of medical research.

Drawing upon these debates, it could be argued that business and management research not only needs to provide findings that advance knowledge and understanding in this subject area, but it also needs to address business issues and practical managerial problems. However, this would negate the observation that Mode 2 practices develop from Mode 1. It might also result in business and management research that appears to have little obvious commercial benefit being ignored. This, Huff and Huff (2001) argue, could jeopardise future knowledge creation, because as highlighted in the opening vignette, research that is initially not of commercial value can have value in the future. Building upon these ideas, Huff and Huff highlight a further form of knowledge production: Mode 3. **Mode 3** knowledge production focuses on an appreciation of the human condition as it is and as it might become, its purpose being to 'assure survival and promote the common good at various levels of social aggregation' (Huff and Huff 2001: 53); in other words the research is of benefit to humankind rather than business. This emphasises the importance of broader issues of the wider implications of research and, we consider, links to the idea of research being of benefit to society in general rather than just business. Consequently, in addition to research that satisfies your intellectual curiosity for its own sake, the findings of business and management research might also contain practical implications, which may be far broader and complex than perhaps envisaged by Mode 2.

### The relevance gap

Tranfield and Denyer (2004) draw attention to concerns resulting from the separation of knowledge producers from knowledge users. This has introduced a schism, or what Starkey and Madan (2001) call the 'relevance gap', which has been the subject of considerable debate. Rousseau (2006) has drawn attention to ways of closing what she terms the prevailing 'research-practice gap' – the failure of organisations and managers to base practices on the best available evidence. She extols the virtues of 'evidence-based management', which derives principles from research evidence and translates them into practices that solve organisational problems. Research findings do not appear to have transferred well to the workplace. Instead of a scientific understanding of human behaviour and organisations, managers, including those with MBAs, continue to rely largely on personal experience, to the exclusion of more systematic knowledge. Within these debates some maintain that the gap between academic research and practice is fundamentally unbridgeable because management researchers and the researched inhabit different worlds, are engaged in different activities and have different research orientations, while others disagree. Hodgkinson

and Rousseau (2009), for example, argue that the research–practice gap is due to more than differences in style and language, and that management researchers can generate knowledge that is both useful to society and academically rigorous.

Not surprisingly, many managers and academics perceive the gap between research undertaken by academics and management as practiced as problematic. Saunders (2011) categorises these as differences between academics’ and practitioners’ orientations in relation to their foci of interest, methodological imperatives, the key outcomes and how each views the other. These we summarise in Table 1.2, the contrasting orientations indicating where tensions may occur.

However, perhaps the most telling comment on the so-called ‘relevance gap’ is from Tranfield and Denyer (2004: 13), who assert that ignoring such a gap would be ‘unthinkable in other professional fields, such as medicine or engineering, where a national scandal would ensue if science base and practice were not inextricably and necessarily interlinked’. This relates to the idea of conceptualising management as a design science rather than a social science. From the design science perspective, the main purpose of academic management research is to develop valid knowledge to support organisational problem solving. Many researchers would probably agree that the purpose of management research, like other social sciences, can be undertaken from a wide variety of perspectives involving exploration, description, evaluation, explanation and prediction. However, taking a design science perspective focuses upon solution-orientated research to develop valid knowledge which supports practitioners in solving business problems (Van Aken 2005). The counter argument proposes that management practice is characterised by a wide variety of organisational phenomena that are often ambiguous, and may not be suited to rule-like explanations offered by design science, and that there needs to be a balance between the different purposes of research and a need for application (Pandza and Thorpe 2010).

## Responsible Research in Business and Management

The creation of the Community for Responsible Research in Business and Management (cRRBM) provided further impetus. They emphasise that findings needed to be both credible (drawn from research undertaken rigorously) and applicable (relevant) to practice if business and management research was to be useful to society (McKiernan and Tsui 2020).

**Table 1.2** Practitioner and management researcher orientations

<b>Management researcher</b>		<b>Practitioner</b>
Basic understanding	<b>Focus of interest</b>	Usable knowledge
General enlightenment		Instrumental
Theoretical explanation		Practical problem solutions
‘Why’ knowledge		‘How to’ knowledge
Substantive theory building		Local theory-in-use
Theoretical and methodological rigour	<b>Methodological imperative</b>	Timeliness
Academic publication	<b>Key outcome</b>	Actionable results with practice impact
Disdain of practitioner	<b>Views of other</b>	Deprecate or ignore
Desire to make a difference to practice		Belief research can provide relevant (socially useful) fresh insights to managers’ problems

Source: Developed from Saunders (2011)

**Table 1.3** Community for Responsible Research in Business and Management’s seven principles of responsible research

<b>1. Service to society</b> Research aims to develop knowledge that benefits business and the broader society locally and globally to create a better world	
<b>Improving rigour</b>	<b>Ensuring relevance</b>
<b>2. Valuing both basic and applied contributions</b> Contributions of both basic and applied research are recognised	<b>5. Stakeholder involvement</b> Different stakeholders can play critical role without compromising independence or autonomy of the research
<b>3. Valuing plurality and multidisciplinary collaboration</b> Diversity in research themes, methods, forms of scholarship, types of inquiry and interdisciplinary collaboration reflect plurality and complexity of societal and business problems and are valued	<b>6. Impact on stakeholders</b> Research that has an impact on diverse stakeholders, especially contributing to better business and a better world, is rewarded
<b>4. Sound methodology</b> Uses sound scientific methods and processes in both quantitative and qualitative or both theoretical and empirical domains	<b>7. Broad dissemination</b> Diverse forms of knowledge dissemination that collectively advance basic knowledge and practice are valued

Source: Developed from McKiernan and Tsui (2020)

Their objective is ‘to change research practice for a better science and towards having a greater impact, especially on society as a whole’ (McKiernan and Tsui 2020, p. 491). cRRBM offer seven principles to guide research and ensure it is both credible in terms of a rigorous method and methodology, and relevant to society (Table 1.3). Of these, principle 1 – service to society, is considered core, developing knowledge that creates a better world. Principles 2 to 4 (left column) are concerned with aspects of methodological rigour in research, whereas principles 5 to 7 focus on ensuring research is relevant to society. As you digest these seven principles, think about how they relate to both the earlier debates we have outlined and your own beliefs regarding how business and management research should be undertaken (Box 1.2).

## Basic and applied research

Table 1.3 highlights responsible research in business and management valuing both basic and applied contributions, and thus although the immediate purpose and the context of your research project can differ considerably it can still benefit broader society. For some research projects your purpose may be to understand and explain the impact of something, such as a particular policy. You may undertake this research within an individual organisation and suggest appropriate action based on your findings. For other research projects you may wish to explore the ways in which various organisations do things differently. In such projects your purpose may be to discover and understand better the underlying processes in a wider context, thereby providing greater understanding for practitioners. For yet other research projects you may wish to place an in-depth investigation of an organisation within the context of a wider understanding of the processes that are operating.

Despite this variety, we believe that all business and management research projects can be placed on a continuum (Figure 1.1) according to their purpose and context. At one

**index number** Summary data value calculated from a base period for numerical variables, to facilitate comparisons of trends or changes over time. *See also* base period.

**indexical sign** Sign in which the object being signified is inherently indicated. *See also* iconic sign, semiotic analysis, sign, symbolic sign.

**individual person access** When an individual, who is not affiliated to an organisation, is willing to provide data.

**inductive approach** Approach to theory development involving the development of a theory as a result of the observation of empirical data.

**ineligible respondent** Respondent selected for a sample who does not meet the requirements of the research.

**inference, statistical** *See* statistical inference.

**inferred consent** Informants, participants or respondents may or may not fully understand the implications of taking part but their consent to participate is inferred from their participating in the research. The researcher assumes that data may be recorded, analysed, used, stored or reported as she or he wishes without clarifying such issues with those who take part. *See also* informed consent.

**informant** Person who agrees to be observed in participant observation or structured observation studies.

**informant error** Error that occurs when an informant is observed in a situation that is inconsistent with their normal behaviour patterns, leading to an atypical response. *See also* informant.

**informant interview** Interview guided by the perceptions of the interviewee.

**informant verification** Form of triangulation in which the researcher presents written accounts of, for example, interview notes to participants for them to verify the content. *See also* triangulation.

**informed consent** Position achieved when intended participants are fully informed about the nature, purpose and use of research to be undertaken and their role within it, and where their consent to participate, if provided, is freely given. *See also* deception,

**initial coding** *See* open coding.

**initial sample** Purposively selected initial case from which to collect and analyse data used in Grounded Theory. *See also* grounded theory (method).

**instrument** *See* questionnaire.

**integer** A whole number.

**inter-library loan** System for borrowing a book or obtaining a copy of a journal article from another library.

**inter-quartile range** Difference between the upper and lower quartiles, representing the middle 50 per cent of the data when the data values for a variable have been ranked.

**inter-rater reliability** Extent which two coders agree when coding the same set of data.

**interdiscursivity** Way one discourse is introduced into another discourse within discourse analysis. *See also* discourse analysis.

**interim summary** Type of summary used to outline progress and to aid analysis. *See also* document summary, transcript summary.

**internal researcher** Person who conducts research within an organisation for which they work. *See also* cognitive access, external researcher.

**internal validity** Extent to which findings can be attributed to interventions rather than any flaws in your research design. *See also* ecological validity.

**Internet forum** Commonly referred to as Web forums, message boards, discussion boards, discussion forums, discussion groups and bulletin boards. Usually only deal with one topic and discourage personal exchanges.

**Internet questionnaire** *See* online questionnaire.

**Internet-mediated access** Use of Internet technologies to gain virtual access to conduct research.

**Internet-mediated observation** Adaptation of traditional observation from oral/visual/near to textual/digital/virtual to allow researchers purely to observe or participate with members of an online community to collect data. *See also* netnography.

**Internet-mediated structured observation** Type of Internet-mediated observation that broadly follows the approach to structured observation. *See also* Internet-mediated observation, Internet-mediated participant observation, structured observation.

**interpretive ethnography** Ethnographic strategy stressing subjectivity, reflection and identifying multiple meanings. *See also* autoethnography, ethnography, critical ethnography, realist ethnography.

**interpretive paradigm** Paradigm concerned with the way humans attempt to make sense of the world around them; for example, understanding the fundamental meanings attached to organisational life.

**interpretivism** Philosophical stance that advocates humans are different from physical phenomena because they create meanings. Argues that human beings and their social worlds cannot be studied in the same way as physical phenomena due to the need to take account of complexity.

**intertextuality** Way a text or texts overtly or covertly borrow from and are informed by other texts within discourse analysis. *See also* discourse analysis.

**interval data** Numerical data for which the difference or 'interval' between any two data values for a particular



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