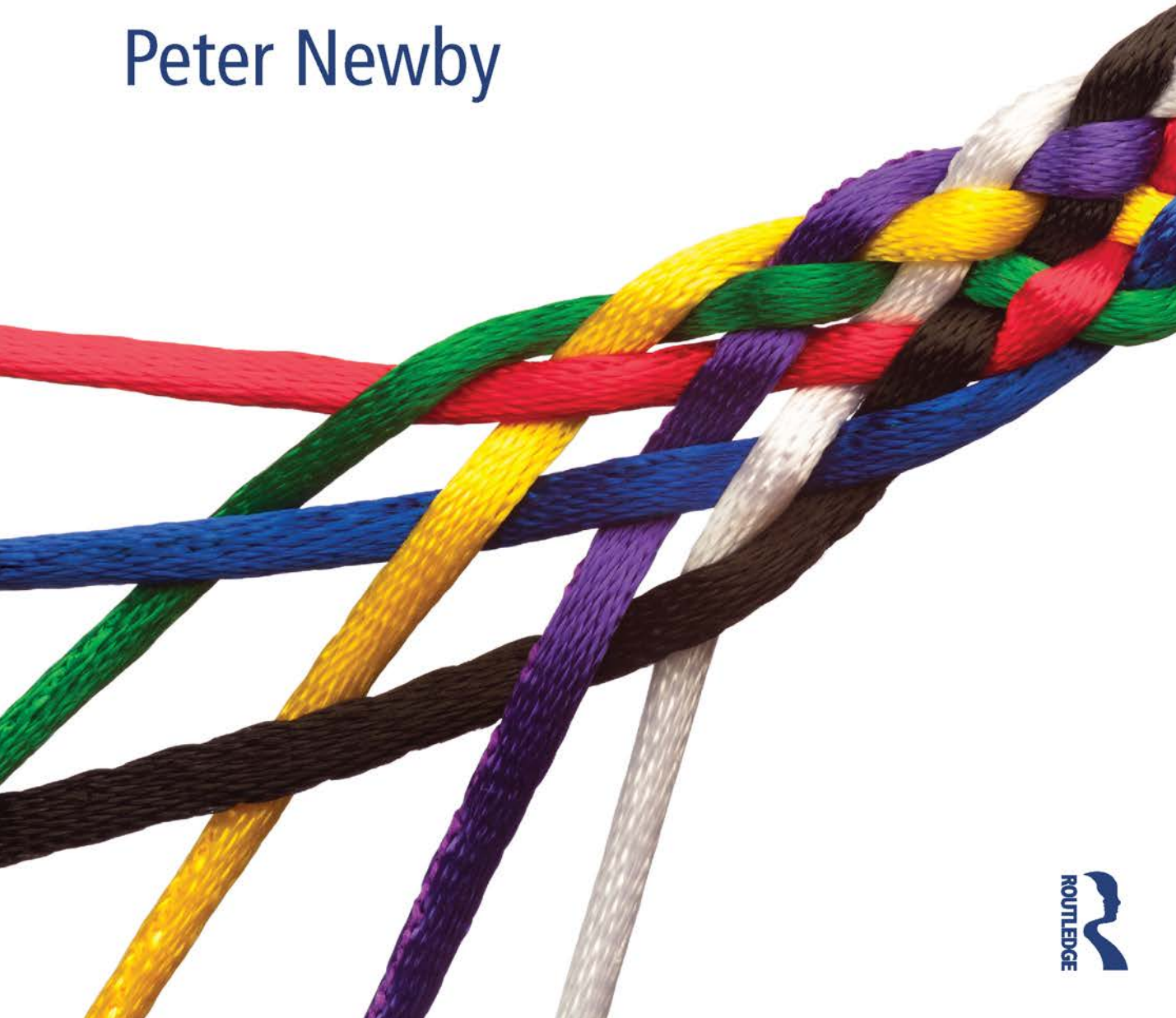
Research Methods for Education

second edition

Peter Newby



ROUTLEDGE

Praise for the first edition:

Peter Newby is an affable and welcoming guide, but don't let that fool you; his introduction represents the crystallization of careful, sophisticated practical, technical, and conceptual thinking, combined with a sure-footedness in and around the folk-ways of educational research. This is a book with a considerable span of interests, permeated with a strong sense of why such work, and a commitment to doing it well, really matters. That Newby has done all this without compromising the complexities and challenges that make all this work important is an achievement that makes this an especially useful and enjoyable book for beginning and experienced researchers alike.

Peter Freebody, The University of Sydney

Crafting an appropriate and effective research design is a challenging task for many students, novice and experienced researchers. Users of this comprehensive text will find it very helpful in designing suitable research tools, seeking consistency in theoretical underpinnings and making critical research decisions. The text is intelligently grounded – it provides useful insight into real-life research situations and examples. It is a very accessible text, easy to read and navigate through. I would have no hesitation in recommending it to students embarking on educational research and to lecturers about to teach a course in research methodology.

Marc Shäfer, Rhodes University, South Africa

An excellent text for students studying at all levels from undergraduate to doctoral qualifications. The structure of the book leads the reader through the complete research process, highlighting the many ambiguities and challenges faced during the research. Clear language makes the text accessible and helps to clarify some of the more difficult issues without minimising their complexity. This book will be a great asset to many first time as well as experienced researchers.

Sheine Peart, Nottingham Trent University

There are few things more important than good research into education, and in this book Peter Newby makes sure his readers can meet this challenge. He is a reliable, thorough and confident guide for anyone setting out on their research journey. The text is particularly helpful for researchers developing action or policy in this field.

James Wisdom, Visiting Professor of Educational Development, Middlesex University

This is an excellent, up-to-date and accessible methods text which will greatly appeal to students grappling with the research process. The style of the book is clear and user-friendly, whilst the content anticipates many of the problems which students are likely to encounter during their research in education. Comprehensive and good value for money.

Samantha Punch, University of Stirling

A refreshing approach to basic research issues, in a comprehensive research text that should stand the test with students who find some issues difficult to grasp. Its combination of theory and practical illustrations guides the reader through all aspects of the research process, the management of quantitative methodology and analysis a particular strength. The relaxed style of writing and presentation, and online features, will be appreciated by staff and students alike.

Molly Cumming, University of Strathclyde (retd)

One of the most thorough and comprehensive research texts available. The author offers a thorough presentation of all aspects of the research process, draws on a wide range of real examples from practice and offers particular support to those students who might struggle when presenting quantitative data in their research process.

Liz Keeley-Browne, Oxford Brookes University

Combines comprehensive detailed coverage with accessibility and practical guidance. This will become a core text for many students of educational research.

Steve Strand, University of Warwick

A serious and important attempt to simplify the complex process of research, without restricting or overly classifying the range and power of techniques available to us.

Stephen Gorard, The University of Birmingham

I am impressed by Newby's concrete and structured way of guiding the student through the entire research process. His descriptions of complex theories and procedures is conveyed in an interesting and accessible way. Students will also enjoy the writing style and pedagogical organization of the book.

Carina Rönnqvist, Umeå School of Education, Sweden

Peter Newby provides a lucid and accessible guide to research methods for education. His approach, which sees such methods as a means to an end, is a much needed reminder that the main aim of research is to answer difficult questions and to break new theoretical and empirical ground.

Richard Andrews, Institute of Education, University of London

Research Methods for Education

Research Methods for Education, Second Edition takes the student by the hand and guides them through the complex subject of research methods in an engaging, witty and clear way. The book covers the philosophical approaches and epistemology, as well as the practical aspects of research, such as designing questionnaires and presenting conclusions.

Each chapter is split into 'Context' and 'Practice' and both sections are packed with exercises, examples and comparative international material from other educational contexts. Peter Newby's book is the student-friendly text which demystifies the research process with clarity and verve.

Key features:

- written in a clear and friendly manner to help students feel more confident dealing with the complexities of research and particularly useful for those new to research or less confident with numbers
- a mixed methods approach, which doesn't simply prioritise quantitative or qualitative methods, allowing for greatest possible coverage
- contains guidance on analytic procedures that require more advanced tools such as SPSS and Minitab
- many excellent international examples and case studies specifically from education, which break away from a parochial focus on UK education system.

Additional support such as activities, multiple choice questions, data-sets, examples of good and bad research tools and help with mathematics is available on the website www.routledge.com/cw/newby.

Peter Newby headed up educational development at Middlesex University for ten years. After this he set up an education research and development centre where the focus of the work was the exploration of learning processes and frameworks that could deliver prosperity and greater social equality to communities. Peter is now Emeritus Professor of Higher Education at Middlesex University.

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Research Methods for Education

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Emeritus Professor of Higher Education,
Middlesex University

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I would like to dedicate this book first to Radka. It is, I know, a small recompense for all the support you have given me. I would, as well, like to offer it to Josephine, Matilda, Elspeth, Clara and Beatrice whose experience of education will lay the foundations to become the next generation of researchers.

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About the author

I began academic life as a geographer. An early interest in research methods gave me an insight into another world – consultancy. It was in this context that I learnt to translate theory into practice and how to construct a research strategy that was within the client's budget. My experiences here shaped my belief in what I thought higher education should be doing and my own career changed as a result. For ten years, I headed up educational development at Middlesex University. After that, I set up an education research and development centre where the focus of our work was the exploration of learning processes and frameworks that could deliver prosperity and greater social equality to communities. At the heart of much of my work was the idea of how skills should be embedded in the curriculum. Over time, my ideas moved on to explore the interaction of skill, knowledge and performance inherent in the concept of capability and through this I developed my ideas on skill complexes. This led to significant work on the development of entrepreneurship and leadership. I am now Emeritus Professor of Higher Education at Middlesex University.

Peter Newby

Preface

I would like to begin by explaining to students who are using this text why you are expected to follow a course in research methods and, almost certainly, why you are expected to produce some research of your own. When students join a university, they are, invariably, presented with details of the course they will follow. These show what will be studied at each stage of the course, where they have choices and how assessment is conducted. In many institutions, certainly in the UK, students will also be told what learning outcomes are expected. However, what is often lost in this detail is a bigger picture of the principles that underpin a university education. Perhaps surprisingly, these principles are common to many disciplines, from the sciences, through the social sciences to the arts. They almost certainly inform undergraduate programmes in education. And from my perspective as author of this text, research plays a major part in giving these principles substance.

An undergraduate programme develops students so that they can, with integrity and a sense of having earned the honour, call themselves 'graduates'. Generally there are three steps in this process. Each builds an important element in the infrastructure of becoming a graduate. The first is *understanding*. You demonstrate your ability to understand a subject by reproducing arguments, perspectives and evidence in your own words. So, if you ever wondered why you were given essays, term papers and examinations, this is the reason. As you progress in your course, the need to demonstrate understanding becomes intertwined with another principle on which graduateness is based, *critical capability*. This is concerned with how well we exercise our judgement. We develop critical capability by using our understanding to assess and judge subject material and we demonstrate our critical capability through the quality of the arguments we construct. The final stage of becoming a graduate is to develop the ability to *create knowledge*. This can only happen when we exercise critical judgement, when we see where there are gaps in our knowledge or where our understanding is flawed.

It should be clear now where a course in research methods fits in. It is the key to the final stage of becoming a graduate. As a graduate, you will be expected, wherever you work, to be capable of influencing development based on a cogently argued case for change. You will not be able to do this without sound research to back up your argument. And the same argument applies if your research journey begins at the postgraduate level.

I am aware that not every student finds a course in research methods as appealing as one on educational policy or special needs or citizenship but you should remember

that a university education is designed to give you the intellectual and technical skills to shape the world. I have written this text to help you develop the ability to do this. I recognise, however, that learning about research methods and how to use them can seem challenging so, while writing, I have had in mind a student who is a little daunted by the thought not only of passing a course in research methods but also of having to produce a piece of research work. I have tried to see the expression on that student's face and in the eyes, so that I can see whether my ideas are understood. I have tried, also, to write the text so that it is approachable and readable. Nothing is more daunting than reading an author who likes to show that he or she knows more than the person studying the text. There is, of course, technical vocabulary in this text, but it is explained. I have, wherever possible, sought to give context to what I have included, with background on some of the people associated with the techniques and approaches. You will learn that the history of social and educational research has the drama of professional rivalries and the corrupting influence of personal ambition as well as the knowledge generated by the efforts of researchers. I have tried also to show the utility of the methods with examples of how and where they have been used. The learning model is explanatory but I hope that the inclusion of activities, case studies and the Web materials developed and provided by Mike Radford, moves the text away from being overly didactic. Certainly my object was to engage students with both the excitement of research and the sense that they could do it themselves.

I have said that I had a student in mind when I was writing, but who are you? As I imagine you, you are just beginning a research journey. You may have done research elsewhere, perhaps at school, but that was not designed to enable you to produce research that could inform and shape the world. Typically you can begin this research journey at one of three points. First, you may be an undergraduate taking a course in education. Second, you could be a trainee teacher or a newly qualified teacher who has moved into education from a specialist subject field and are taking a course of professional development over and above a postgraduate teaching qualification. Third, you might be following a postgraduate programme at masters or doctorate level, often after a period in teaching and as a means of advancing your career. While these three starting points inevitably imply that people will have different amounts of contextual knowledge, it is unlikely that you will have the appreciation of how to go about research in ways that other education and social researchers will find acceptable and convincing. For this reason I have assumed little prior knowledge and, in mathematical terms, only the ability to add up, subtract, multiply and divide. The challenges in research methods (as in most other courses) are met by thinking logically and creatively. There is some mathematical formulation to enable you to make the leap to more advanced texts and academic papers where statements about statistical tests are an integral part of communication.

So what has my approach been? It is founded on the belief that something that is well explained is better understood. It is designed to develop the confidence to undertake research. This is not a text that sets out rules and recipes for how to carry out research. I believe that my role is to build understanding and a self-belief that you are capable of research so that when you apply your learning to tackling a research problem, you understand the opportunities open to you, the freedom you have to select methods and that you are able to justify your research practice. I have used the opportunity of a second edition to reshape some of the material and introduce up-to-date research and ideas about research. In terms of structure, I have chosen to make explicit frameworks that were implicit in the first edition in order to encourage students and teachers to use the text more flexibly. While there is clearly a linear narrative to the whole, the changes to each chapter that I have introduced should make it easier to use the text in ways that suit how a course

is taught. There no need to start at the beginning and continue through to the end. Each chapter and section of a chapter can be read independently. Part 1 gives the context for research in education. It deals with the implications of philosophy and terminology and concepts used by research methodologists to make the research process comprehensible. Weaving through these sections are discussions of approaches to education research. Some of these ways of looking at research (the qualitative/quantitative in particular) are deeply rooted but things may change as young researchers grasp the opportunity to attack the research question without feeling the need to be bound by research convention. Part 2 examines the process of data collection and Part 3 data analysis. Each chapter is now divided into two sections; one, research practice, as it suggests, adopts a 'how to' approach and the other, context, gives guidance on issues researchers should consider before embarking on the research practice.

There are some key messages within the text that I would like to highlight here.

First, it will introduce you to a range of research positions, methods and approaches. I should make it clear that I do not advocate any one over others. My position is that you should use your view of the world and the issue you intend to research to determine what you do and how you do it.

Second, I believe that all researchers should have a broad appreciation of research approaches so that they can develop a research strategy and design that is appropriate to the circumstances.

Third, I want readers to feel confident about their research approach. It is for this reason that I have highlighted context and practice in each chapter. The context sections and Part 1 in particular provide the intellectual arguments for justifying research practice.

Fourth, many beginning researchers are needlessly concerned about their mathematical competence and therefore their ability to use quantitative approaches. All this text asks of you is that you understand (i) straightforward arithmetic, (ii) the logic that underpins statistical tests and (iii) the idea that mathematics has a language of its own whose basic vocabulary can be picked up quickly. There are now so many utilities on the Internet that actual statistical calculation can be done at the click of a button.

Finally, perhaps the most important message: research is not just enjoyable (honestly!), it is also liberating. It will open your eyes to new ideas, possibilities and ways of viewing the world, it will show you what you can achieve and it will give you the confidence to set your sights high and achieve even more.

How I have approached writing this text is the product of many years' teaching students research methods. As the character of the student population has changed, so has my approach. I hope what I have written meets the needs of present day students. While the words and the framework are mine, I have had valuable help from a number of people. In particular, for the first edition, I should mention Dr Liz Browne (Oxford Brookes University), Helen Channon (University of Cumbria), Molly Cumming (University of Strathclyde), Dr Lisa Lucas (University of Bristol) and Dr Steve Strand (University of Warwick). To the anonymous referees of both the first and second editions and those who found ways of contacting me directly, I send you my thanks too. I would also like to record my thanks first to the team at Pearson who produced the first edition. To Catherine Yates who chanced on a throwaway remark that I knew something about research methods and to my editors, Stuart Pearce whose protestations that he 'didn't quite understand' revealed, instead, significant knowledge about research methods. Second, to Natalie Larkin, Victoria Bate and Vicky Parting who managed the transfer to Taylor and Francis and the production of this second edition so effectively. All of you have helped improve *Research Methods for Education*. Any errors that remain are mine alone.

Acknowledgements

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Figures

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Screenshots

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Tables

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Text

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Dishion, J. (1991) The Interpersonal Process Code (IPC), Oregon Social Learning Centre, Eugene, Oregon. Available at http://www.oslc.org/resources/codemanuals/interpersonal-processcode.pdf; Activity 13.4 from Reading Achievement & Social Selection in Independent Schools in Sweden: Results from IEA PIRLS 2001 Reading Test, *Scandinavian Journal of Educational Research* 50(2) 185–205 (Myrberg, E. and Rosen, M. 2006), Reprinted by permission of the publisher (Taylor & Francis Ltd, http://www.tandf.co.uk/journals).

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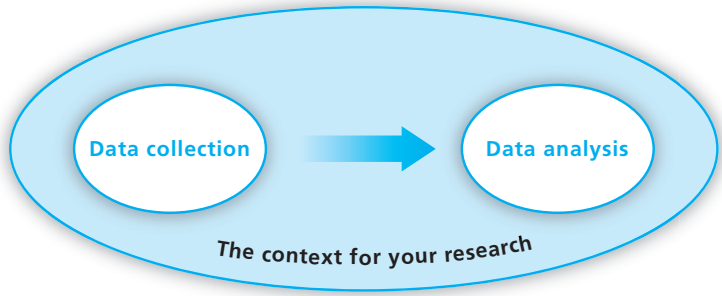
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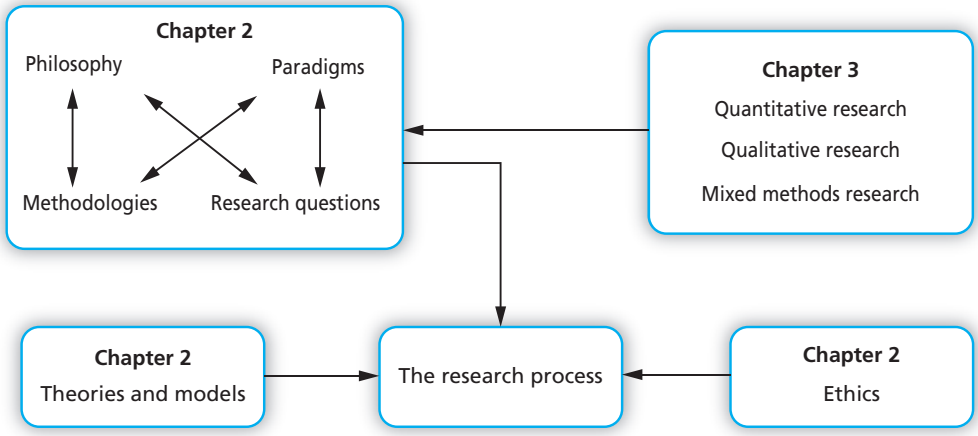
Data analysis
The context for your research


Chapter 2
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Chapter 2
Ethics

Part 1

THE CONTEXT FOR YOUR RESEARCH

This first part of the text sets the scene for research in education. Its purpose is to provide you with confidence in handling the concepts and ideas that condition research practice. These are important if you want your research to be taken seriously. While some of the material can seem challenging, it is discussed in a straightforward way. Because of the need to explain concepts and ideas to students who may not have met them before, there has had to be some simplification as well as selection.

Simplifying things in order to help people understand them can lead to concerns being ignored or glossed over. There is, however, guidance on further reading that will take you more deeply into issues. Nonetheless, there are two points of advice that I offer in respect of this section.

1. It is possible to omit much of Part 1 and go on to Parts 2 and 3, which deal with the more technical aspects of research data collection and analysis. But do note, there will be times when it will be necessary to return to Part 1 in order to understand fully why certain things should be done in a certain way and why some approaches and techniques should be used only in specific circumstances.
2. If this is your first introduction to research methods, the discussion and explanations are still within your grasp, especially if they are supported by the guidance of a tutor and class discussions.

Chapter 1 sets the scene for education research.

Chapters 2 and 3 explore influences on the research process that we undertake. These constitute the context for our research and they are shown in the preceding figure.

In Chapter 2 we will look at the influence of philosophy, methodology, research paradigms and research questions. The figure shows that these are highly connected issues. In fact paradigms, broad approaches to research activity, are so important in giving shape to our understanding of the research process that they are considered in depth in Chapter 3. In Chapter 2 as well we will look at how theories and models fit into the research process and how our research should rest on ethical considerations of how others are affected by our work.

Chapter contents

Chapter 1

RESEARCH: A MESSY BUSINESS

Learning themes

- Learn how this text can meet your needs, whatever stage you are at in your research development.
- Why people undertake education research.
- The character of the research community in education.
- How to be successful in education research.
- Educational research is highly contested.

By the end of this chapter you will:

- Understand how this text meets your needs and how you can use it.
- Appreciate the character of educational research, its broad goals and objectives and be able to use these to stimulate your own research thinking.
- Be able to think in advance of what you should do to minimise the risk of your research programme being derailed.

Introduction: Putting the text in perspective

A text on research methods – it's not exactly the sort of thing you would choose for the beach, is it? Let's be clear, getting through this text will require some work from you and, at times, you might find that it's stretching you rather more than you want to be stretched. However, what is written here will help you understand what you need to know so that you can make sense of the research process. The explanations are clear and draw on your understanding of education. You will be guided through some of the more tricky research manoeuvres and there will also be practice activities to help you develop your confidence, your understanding and your technique. There is a lot to learn but when you are at the end of your journey, you will appreciate that what you have learnt is making sense at a whole series of levels. You will know about the 'proper' way of applying a technique; you will know about alternative techniques for different situations; you will know that there is always more than one route to a research destination and you will also appreciate the most important lesson that this text has to teach you, that while you can bend and sometimes break the rules, there are principles that will constrain and confine you if you want others to value your work.

And there are two other things that you will find out as well: first, that developing an approach to research issues is creative and

stimulating and second, that doing your first piece of research is engrossing and one of the most enjoyable and satisfying things that you will ever do – believe me!

Think of this text as if it were a game or a puzzle, for example a jigsaw. This introductory chapter is the box that contains the puzzle. It gives some instructions and guidance on how to put it together. One thing you need to appreciate is that the research puzzle is unusual because, unlike a conventional jigsaw, it can be put together in an infinite number of ways. To this extent, it is more like a computer game in which the object is to get to the end but because of the random nature of events there are a great many routes for reaching the goal.

What does this chapter tell you about the puzzle? It will give you a perspective on research in education. As a puzzle, research can be 'solved' at various levels of expertise and this chapter will help you understand which level you, as a reader, are at. You will also appreciate that education research has not one heart but three – one whose beat provides the life-support for academics as 'searchers after truth', one for practitioners and the third for policy makers. It will help you understand that solving the research puzzle involves decisions and judgements on your part. You will see that the interest in education research does not end at the school gates. Education is seen as a way of achieving a wide range of social, economic and political goals, so it concerns a far wider community than just education professionals. Most important though, this chapter will give you guidance on the standards that you have to maintain if you want your research to be taken seriously.

Welcome to the research world.

1.1 What do you put first?

There is no absolutely right or wrong way of putting together the first section of any text but there is always a way that makes sense in terms of the message that the author wants to convey. In this instance, rather than getting into the intricacies of the research process, we are going to look at who this text is for and why it will be useful at all stages in your research career. You are going to see why we do education research and just who does it, because it is important you understand this when you read education research. And you will also learn what the key objectives of any research are as well as some rules of thumb that you should know before you become a researcher.

1.2 Who is this text for?

In order to write this text, I first identified the people who might use it so that they could see how it could be valuable to them. See if you recognise yourself in Table 1.1. For everyone in the world of research this text, and this chapter particularly, has two key messages.

- First, real world research is not necessarily clear cut and well structured. It is important that you develop the skill of knowing when, where and how to compromise with what theory and accepted practice says that you should do. You can choose to

Table 1.1 Who can use this text?

- An undergraduate student following a course in research methods.
- A postgraduate student following a course in research methods.
- A research student planning a dissertation or thesis.
- A lecturer responsible for a taught research methods programme.
- A tutor supervising a student's project.
- A professional or academic researcher.

work within one of the traditional research approaches and abide by their rules (we cover these in Chapter 3). But you do not have to; you can mix approaches and styles of research to give you the information you need to solve your research problem. If you do work within a set of rules, you should recognise that you are letting go of your freedom to take decisions and to construct your research programme in ways that seem best for you. The argument of this text is that you need to understand the consequences of doing or not doing something, so that you are able to make good decisions according to the circumstances.

- This leads on to the second key message. Once you have this understanding and you are confident in your judgements, then you will have the intellectual command of your subject to persuade others that the choices you have made and the way you have done things are appropriate. This word 'appropriate' is important. It does not mean 'best' necessarily, but it does mean 'justifiable' and 'acceptable in delivering results that are fit for purpose'. Once you can do this, then you will meet the prime, perhaps the only, requirement of delivering research output, namely that it is acceptable to the audience you select.

But what of the specific value to each of the groups?

(i) If you are starting your research journey

You could be an undergraduate studying education and the course you are following is your first experience of the research world or you could be a postgraduate, perhaps a teacher, studying for a higher degree in education, in which case you may well have been introduced to research approaches in another subject. If this does describe you, a word of warning: beware of assuming that what you have already learnt can be transferred directly to the field of education. The techniques you are aware of may well be transferable but the context in which they are applied is likely to be very different and you should be looking to identify these differences. Whether you are an undergraduate or a postgraduate following a course in research methods, this text will give you a grounding in how to do research. It is more applied than philosophical (though you may be forgiven for thinking otherwise as you read the first few chapters) but it never loses sight of the fact that principles underpin not only research methods but also the outlook of the researcher. It also argues that research frequently blends data and methods and can draw upon more than one approach. What you have to do as a researcher is to learn how to put together a research strategy that meets the needs of the research problem and the context for undertaking the research. At the end of your course and with the help of this text, you will be able to do this.

(ii) If you are preparing a research project

If you are a student preparing a research proposal and plan, the goal for you is much the same. You need to appreciate that an academic audience can be fickle and precious about research. Because of this, it is important that the infrastructure on which your research programme rests is robust. Pay particular attention to Chapters 4 and 5 but be aware that no single text will deliver everything you need to know about research. Use this text to give you a sufficient understanding to develop a research strategy and choose a research procedure.

(iii) If you are a lecturer or supervisor

You can be confident that with your guidance your students will be able to manage this text and associated learning materials by themselves. Experience suggests that this is particularly important when learning about quantitative procedures. If your students are preparing a research proposal, the text can be used as a platform for introducing them to more sophisticated research procedures. It is, as well, designed to encourage discussion and reflective assessment because this develops the imaginative thinking that produces creative solutions to research problems.

(iv) Professional and academic researchers

Professional and academic researchers will dip in to this text to see what is being said about research methods today, though only you can answer whether you have learnt anything more than experience has taught you already. You have probably learnt how to manage the pressures of time and the lack of resources. It would, however, be good to think that if this text has just one message for you, it is to consider building in other approaches to the way you work. (Chapters 4 and 10 might offer something new to you.)

1.3 Why do we do educational research?

Let's begin by looking at the most important question, why bother to research education at all? The answers will begin the process of building a framework that will help you understand how the research process works. At one level the answer to the question is quite simple but when you start to look at the reality of research it is a little more complex than you might think. There are three broad reasons for doing research in education.

(i) To explore issues

This category includes everything from finding answers to a specific question (why do girls in the UK get better grades in mathematics up to Key Stage 4 than boys?) to identifying and specifying a problem or issue that should be the subject of further research. For example, if you think there could be a relationship between social conditions in a community and the educational attainment of cohorts of children, it would be interesting to know if any schools or areas bucked the trend.

(ii) To shape policy

We conduct research to collect information and use it to make a judgement that informs policy goals and indicates how we can attain them. We also carry out research to find out whether we are going in the right direction once a policy has been implemented. There is an example of this in Case Study 1.1.

Case study 1.1 Education research and policy

Education is a bit like constructing a building, you cannot get very far if the foundations are not strong. The foundations for learning are the ability to take in information, to communicate understanding and to manipulate number according to rules. More popularly we would call this 'the 3Rs', reading, writing and arithmetic. In the UK there has been concern over 'declining standards' in these basic skills for some time. In the recent period, politicians and others have blamed it on social change in the 1960s and the outcomes in terms of attitudinal and behavioural changes in later decades. If we look around the world we find evidence of the same concerns. The Organisation for European Co-operation and Development (OECD) co-ordinates with Statistics Canada (the official statistics agency for Canada) the Adult Literacy and Life Skills Survey (ALL). This records tests of the proficiency of national populations in:

- Prose literacy – the ability to understand and use text.
- Document literacy – the knowledge and skills to locate and use information in text and diagrammatic form.
- Numeracy – the effective management of the demands made on us by different situations.
- Problem solving – the ability to move towards a goal in situations where routine procedures are not available.

The ALL survey builds on the earlier International Adult Literacy Survey. The headline results of the ALL survey (OECD, 2013) are that:

- Many adults worldwide have difficulty coping with literacy and numeracy in their everyday lives.
- National differences in performance are apparent; England and Japan perform well in all areas, Italy and the Spain less well in literacy.
- Young people tend to perform better than older people, though not in the UK or USA.
- Men tend to perform better in numeracy tests and women in prose literacy.

The Progress in International Reading Literacy Study (PIRLS), which is co-ordinated by the International Association for the Evaluation of Educational Achievement (IEA) reports on the reading achievement of children in 40 countries. The results of the 2011 study are not yet released but the report of the 2006 research programme (Mullis, I. et al., 2007) produced one finding which, from the point of view of UK policy, stands out:

> For countries with decreases since PIRLS 2001, Lithuania and the Netherlands had decreases at the two highest benchmarks, England and Sweden had decreases at all except the low benchmark, and Romania had decreases across the distribution.

These concerns and studies constituted the context for policy development in England. In 2006 the Government received a report on teaching reading in primary schools (Rose, 2006). The report's core recommendation is:

> Despite uncertainties in research findings, the practice seen by the review shows that the systematic approach, which is generally understood as 'synthetic' phonics, offers the vast majority of young children the best and most direct route to becoming skilled readers and writers.

Synthetic phonics teaches reading by first requiring children to learn the letter sounds and then how to blend letter sound combinations to give words.

This policy direction has been continued following the change of Government in 2010 and the Secretary of State for Education has introduced a mandatory phonics screening check for children at the end of Year 1, the first year of education.