



**Allan Feldman,
Herbert Altrichter,
Peter Posch
and Bridget Somekh**

TEACHERS INVESTIGATE THEIR WORK

**An Introduction to Action Research
Across the Professions**



Teachers Investigate Their Work

Now in its third edition, *Teachers Investigate Their Work* introduces both the theoretical concepts and the practical methods necessary for readers wishing to develop their action research.

Drawing from studies carried out by teachers and other professionals, as well as from the authors' own international practical experience, the book provides detail on multiple educational contexts from primary education to university training and beyond. It contains over 50 practical methods and strategies to put into action, and explores key areas, such as:

- the purpose, roots, and varieties of action research
- collaborating with a critical friend, research participants, or your peers
- choosing a data collection method
- observing and documenting situations
- making sense of your data
- action research for professional development.

This key text also provides crucial tools, such as:

- a simple 'quick start' nine-step guide
- a toolbox for producing written reports
- criteria for guiding the quality of action research.

A concise yet thorough introduction to action research, *Teachers Investigate Their Work* is an essential, practical, and easily accessible handbook for teachers, senior staff, and researchers who want to engage in innovation and improve their practice.

Allan Feldman is Professor of Science Education and Teacher Education in the Teaching and Learning Department of the College of Education, University of South Florida, USA.

Herbert Altrichter is Full Professor of Education and Educational Psychology and Director of the Linz School of Education at Johannes Kepler University, Austria.

Peter Posch was Professor of Education at the Institute of Education, University of Klagenfurt, Austria, until his retirement.

Bridget Somekh was Professor of Educational Research at Manchester Metropolitan University, UK, and is now Adjunct Professor at the University of Canterbury, New Zealand.

Teachers Investigate Their Work

An Introduction to Action Research
across the Professions

Third edition

Allan Feldman, Herbert Altrichter,
Peter Posch and Bridget Somekh

Third edition published 2018
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN

and by Routledge
711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2018 Allan Feldman, Herbert Altrichter, Peter Posch, and
Bridget Somekh

The right of Allan Feldman, Herbert Altrichter, Peter Posch, and
Bridget Somekh to be identified as authors of this work has been
asserted by them in accordance with sections 77 and 78 of the
Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or
reproduced or utilized in any form or by any electronic, mechanical,
or other means, now known or hereafter invented, including
photocopying and recording, or in any information storage or
retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks
or registered trademarks, and are used only for identification and
explanation without intent to infringe.

First edition published by Routledge 1993
Second edition published by Routledge 2008

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data
A catalog record has been requested for this book

ISBN: 978-1-138-22575-6 (hbk)
ISBN: 978-1-138-22576-3 (pbk)
ISBN: 978-1-315-39882-2 (ebk)

Typeset in Palatino
by Deanta Global Publishing Services, Chennai, India

Contents

<i>List of figures</i>	<i>ix</i>
<i>List of methods and strategies</i>	<i>x</i>
<i>Authors</i>	<i>xii</i>
1 Introduction: what will you find in this book?	1
<i>The purposes of action research</i>	<i>6</i>
<i>Getting started: learning to be a researcher by doing research</i>	<i>8</i>
<i>Quick start guide in nine steps</i>	<i>9</i>
<i>Features that distinguish action research as presented in this book</i>	<i>13</i>
<i>The contents of the book and how it might be used</i>	<i>14</i>
<i>Notes</i>	<i>14</i>
2 The research journal: companion to the research process	16
<i>The role of journals in research</i>	<i>17</i>
<i>Some suggestions for writing research journals</i>	<i>20</i>
<i>Memos and in-depth reflection</i>	<i>27</i>
<i>An example taken from a research journal</i>	<i>29</i>
<i>Getting started</i>	<i>38</i>
<i>Notes</i>	<i>45</i>
3 Collaborating with others	46
<i>Collaborating with your critical friend</i>	<i>48</i>
<i>Collaborating with research participants</i>	<i>49</i>
<i>Collaborating with peers</i>	<i>50</i>
<i>Note</i>	<i>63</i>

4 Finding and clarifying a starting point for your own research 64

- What do we mean by starting points for research?* 64
- Features of starting points* 67
- Sources for starting points* 68
- Issues for action research* 70
- Finding starting points* 72
- Your personal search for a starting point could be facilitated by the following exercises* 73
- Approaches to choosing a starting point* 76
- Clarifying the starting point of research* 80
- From the “first impression”* 82
- Clarifying the starting point through reconnaissance* 86
- Clarifying the starting point by introducing changes in existing situations* 91
- Clarifying the starting point through the elaboration of practical theories* 91
- Holistic and analytic perspectives* 99
- Methods for clarifying the starting point* 100
- Using diagrams* 104
- Notes* 113

5 Developing a research plan and collecting data 114

- What are data?* 114
- Data collection methods* 120
- Observing and documenting situations* 121
- Audio recording observations* 132
- Photography* 138
- Making video recordings* 139
- Existing archival data* 140
- The action researcher as detective* 142
- Advantages and disadvantages of using existing data* 144
- Interviewing* 146
- After the interview* 154
- Some suggestions for learning how to interview* 154
- Sample interviews for different practice situations* 157
- Sources of misinformation in interviews* 159
- Narrative data* 160
- The written survey* 161
- Suggestions for the design and use of surveys* 163
- Collecting data as part of daily practice* 166

<i>A combined method: triangulation</i>	168
<i>Criteria for guiding the quality of action research</i>	172
6 Data analysis	182
<i>Making sense of data</i>	182
<i>Constructive methods of analysis</i>	185
<i>Developing categories and coding data</i>	187
<i>Metaphors in research</i>	196
<i>Narrative analysis</i>	204
<i>Critical methods of analysis</i>	207
<i>Complex methods of data analysis</i>	210
<i>Stage 1 Identification of patterns</i>	212
<i>Stage 2 Significance of the patterns</i>	214
<i>Stage 3 Effects of the patterns</i>	215
<i>Stage 4 Relationship between the pattern and the practitioner's intentions</i>	217
<i>Stage 5 New actions</i>	218
<i>Dilemma analysis</i>	219
7 Developing action strategies and putting them into practice	226
<i>Practical action as an integral part of research</i>	227
<i>What are action strategies?</i>	229
<i>How can I/we find a variety of suitable action strategies?</i>	233
<i>Group decision making for choosing among alternative action strategies</i>	237
<i>Planning concrete steps to enact my/our action strategy</i>	245
<i>How can I/we check the results of action strategies and record the experiences I/we have gained?</i>	246
<i>Unexpected results from action strategies</i>	249
8 Making practitioners' knowledge public	255
<i>Why is it important to make practitioners' knowledge public?</i>	255
<i>Making practitioner knowledge public for professional reasons</i>	256
<i>Making practitioner knowledge public for personal reasons</i>	258
<i>Making practitioner knowledge public for political reasons</i>	259
<i>Disseminating practitioners' knowledge: to whom, what, and how?</i>	261
<i>Possible audiences for action research</i>	261
<i>Deciding on what you want to say</i>	262
<i>Methods of reporting</i>	262

<i>Reporting action research</i>	263
<i>Arts-based forms of reporting</i>	264
<i>Oral reports, workshops, and in-service education</i>	266
<i>Acting on results</i>	266
<i>Written reports</i>	266
<i>Getting started with writing</i>	274
<i>Toolbox for producing written reports</i>	276
<i>Suggestions for improving technique</i>	281
<i>Learning to be flexible in writing</i>	282
<i>Criteria to use in writing reports</i>	283
<i>Further ideas about writing</i>	286
<i>Note</i>	287
9 Examples of action research studies published in journals	288
<i>Studies of classroom practice carried out by teacher-researchers</i>	289
<i>Examples of participatory action research</i>	293
<i>Self-studies</i>	299
<i>Action research for professional development</i>	302
<i>Coda</i>	306
<i>Notes</i>	306
10 Behind the scenes: a theoretical foundation of action research	307
<i>The roots of action research</i>	307
<i>The "standard" story</i>	307
<i>The other players</i>	308
<i>Is action research "research"?</i>	310
<i>Action research as educational innovation</i>	312
<i>Varieties of action research</i>	313
<i>Practitioners as members of a profession</i>	317
<i>Professional action</i>	317
<i>The iterativity of action research</i>	322
<i>The value orientation of practice</i>	323
<i>Final thoughts</i>	324
<i>Notes</i>	325
 <i>References</i>	 326
<i>Index</i>	345

Figures

1.1	The circle of action and reflection	9
2.1	Bergk's cluster	37
2.2	Collage made for M2.3 by Katie Laux, University of South Florida	42
2.3	List made for M2.5 by Janine Hall, University of South Florida	44
3.1	The lesson study cycle	56
3.2	Procedure for conducting a learning study	58
3.3	Step-by-step process for conducting a learning study	60
4.1	Possible sources for starting points	69
4.2	Issue cards	75
4.3	Symbols for relationships	105
4.4	A graphical reconstruction of clarifying the starting point	107
5.1	The ladder of inference	118
5.2	Observation profile	137
5.3	Using triangulation to locate a lost hiker	168
5.4	Using triangulation to better ensure the accuracy of our interpretations	169
5.5	Adding an outside perspective increases the likelihood that we have "located" an accurate interpretation of the data	169
6.1	The constructive analysis of data	186
6.2	Example of inductive coding	189
6.3	Categorizing qualitative survey data	192
6.4	Percentage of Allan's waking time spent in different activities	194
6.5	Development of the T-P-T pattern	213
7.1	Excerpt from a graphical reconstruction— 'Course on statistics'	231
7.2	Consensus decision-making	243
7.3	Ms. Schechter's data collection plan	248
10.1	Diagram of Lewin's conception of the action research cycle	308
10.2	Carr and Kemmis' model of critical action research	314
10.3	From action to reflection and back again	315

List of methods and strategies

M2.1	Research journal	39
M2.2	The slice of life	40
M2.3	Exercise to warm up your research muscles	41
M2.4	In-depth reflection	42
M2.5	Rainer's techniques for journal writing	43
M3.1	Engaging in a journal club	53
M3.2	Designing a lesson study	56
M4.1	Brainstorming: finding starting points	73
M4.2	Giving consideration to several starting points	74
M4.3	The photovoice metaphor	75
M4.4	Choosing a starting point	77
M4.5	The "Gap:" making discrepancies explicit	79
M4.6	Analytic discourse in a group	100
M4.7	Conversation with a critical friend	103
M4.8	The starting point speech	103
M4.9	Graphical reconstructions	105
M4.10	A story from cards	108
M4.11	Photovoice: a story from photos	109
M4.12	From categories to hypotheses	110
M5.1	The ladder of inference	117
M5.2	The data collection plan	121
M5.3	Getting tuned in to doing observations	124
M5.4	Vignettes	127
M5.5	Selective observation using topic cards	129
M5.6	Notes on observations	130
M5.7	Shadow study	132
M5.8	Partial transcription of recordings	136
M5.9	Observation profiles	137
M5.10	Making a dossier	141
M5.11	Quick methods for data collection	144
M5.12	Preparation of an interview protocol	150
M5.13	First attempts at interviewing	155

M5.14	Standard interview questions for the analysis of classroom action research	156
M6.1	Making data summaries	186
M6.2	Inductive data coding	188
M6.3	Categories for questionnaire or survey data	190
M6.4	Writing theoretical notes	193
M6.5	Quantification	193
M6.6	Researching with metaphors	202
M6.7	Narrative analysis	205
M6.8	Testing the findings	208
M6.9	Communicative validation	209
M6.10	Pattern analysis	218
M6.11	Dilemma analysis	224
M7.1	Brainstorming: identifying action strategies	235
M7.2	Cross-checking alternative action strategies	236
M7.3	Nominal group technique (NGT)	240
M7.4	Consensus making	242
M7.5	Devil's advocacy and dialectical inquiry	244
M7.6	Planning your action research	247
M7.7	The "organic to-do list"	248
M8.1	Potential audiences for action research reports	261
M8.2	Producing a cross-case analysis as a team	271
M8.3	The elevator pitch	273
M8.4	Annals and chronicles	274
M8.5	Collegial interview	274
M8.6	What does writing mean to you?	276

Authors

Herbert Altrichter is Full Professor of Education and Educational Psychology and Director of the Linz School of Education at Johannes Kepler University, Linz, Austria. He was the founding president of the Austrian Educational Research Association (ÖFEB) and is now member of the Executive Committee of the European Educational Research Association (EERA). His research interests include educational governance studies (school development and system reform), evaluation, teacher education, and qualitative research methodology.

Allan Feldman is Professor of Science Education and Teacher Education in the Teaching and Learning Department of the College of Education at the University of South Florida. His scholarship focuses on science teacher education, and in particular how practicing science teachers learn from their practice in a variety of subjects, including physics, environmental education, and education for sustainability in formal and informal settings. Much of his scholarship has been on teacher learning through action research and self-study, and through participation in scientific research groups. He is currently co-editor of *Educational Action Research*, and has published theoretical and empirical studies of action research and self-study.

Peter Posch was Professor of Education at the Institute of Education of the University of Klagenfurt in Austria from 1976 until his retirement. His Ph.D. is in Education and Psychology, and he has teaching degrees in English and Geography. He engaged in research and teaching activities at the universities of Innsbruck and Konstanz, the Vienna School of Economics, and Stanford University. Currently, he is an associate member of the Institute for Instructional and School Development at the Alpen-Adria-University of Klagenfurt. His main research and development activities are in school development, quality evaluation, action research, and the professional development of teachers.

Bridget Somekh started to work in action research with John Elliott at CARE-UEA, UK, in the 1980s. She was a founding editor of the international journal *Educational Action Research* from 1993 and for many years a coordinator of the Collaborative Action Research Network. She was Professor of Educational Research at Manchester Metropolitan University, UK, 1999–2008. Since then she has carried out consultancy work in New Zealand, Malaysia, and Hong Kong. Her books include *Action Research: a methodology for change and development*, 2006; and the *Sage Handbook of Educational Action Research*, 2009 (with Noffke). She is Adjunct Professor at the University of Canterbury, New Zealand.

This page intentionally left blank

Introduction

What will you find in this book?

You have just opened this book, are slowly reading the first lines and starting to build up an impression of what may be contained in the following pages. How can we give you, the reader, an idea of the book's importance for us, what drove us to devote much energy and time to writing the first edition, revising it for the second edition, and now rewriting it a third time? Wistful thoughts like these invade the consciousness of many authors sitting in front of a manuscript that has achieved a certain status—or at least size—through being written, rewritten, and finally polished. It is now to be given the last finishing touch: the introduction, which will introduce some key ideas and motivate you to read on.

In the first and second editions of the book, we recounted some personal experiences that convinced us of the importance of action research—specifically, research conducted by professionals in order to improve their practice, come to a better understanding of it, and share what they have learned and done with others. For the most part, we retain this same approach to the introduction, even though the events that we recount have slid into the past far enough so that they may have occurred before you were born. However, to us, they still resonate as the salient experiences that brought us to devote our professional work to the furtherance of action research.

In the early 1980s, three of us (Bridget, Herbert, and Peter) were strongly influenced by the work of the Teacher–Pupil Interaction and the Quality of Learning Project (TIQL) in which teacher-researchers investigated what it means to understand a subject or a topic and how students' understanding can best be developed through classroom work (see Elliott, 1991). At that time, Allan was working as a high school teacher in Philadelphia in the US. While he was not aware of the language of action research, he engaged in reflective practice and wrote about his teaching (see, for example, Feldman, 1981, 1988). In 1989, he began to pursue his doctorate in education and was introduced to the literature of action research by his advisor, Mike Atkin, who was a friend and colleague of Peter and of John Elliott. During that time, he had the opportunity to serve as a critical friend

to Bridget, Herbert, and Peter as they prepared the first edition, by trying out many of the strategies and approaches with the Physics Teachers Action Research Group (PTARG) that he was facilitating (Erzberger et al., 1996; Feldman, 1996). These projects were exciting because teachers investigated the development of students' understanding in their own classrooms, shared their experiences, tried to identify and explain common and contradictory findings, developed and experimented with new teaching strategies, and wrote case studies of their work. Although we had different connections with these projects—as a TIQL Project teacher (Bridget), interested observers of TIQL (Herbert and Peter), and a facilitator of the PTARG project (Allan)—for each of us the experience was an important landmark in our professional development. The teachers' research provided us with new insights into the process of teaching and learning: it paid much closer attention to details and practicalities than other kinds of research; and it probed the differences between stated aims and actual practice in a way that integrated teaching with research. To show you what we mean here are some examples:

In the TIQL Project, Carol Jones (1986), teaching a mixed-age class of seven- to nine-year-olds, investigated their understanding of their schoolwork. She kept notes of what the children did each day, the tasks she set, and anything special about the way in which they carried them out. She soon realized that the children understood the tasks in terms of their previous expectations, and had developed an idea of the sort of work she, as their teacher, would be expecting. Her research then focused on "the extent to which children operate according to criteria of their own, rather than according to the intention of the teacher." She enlisted the help of an outsider who visited her classroom and interviewed the children. By transcribing and analyzing these interviews she found that the children's criteria for judging the value and importance of their work were, indeed, different from hers. For example, when they were asked to observe Puss Moth caterpillars, and make drawings and notes of what they saw, they made a clear distinction between writing and drawing, "holding writing to be a more 'worthwhile,' or higher status task, than drawing." In addition, because they were used to being given cards to help with spelling, one child had not understood that the work card gave instructions about how to observe the caterpillars, and instead said, "it just tells you the spellings." These data suggested that the children were not engaging in the kind of observation and interpretation that Carol had intended, but instead had turned the work into "a routine writing task." She also found that the children did not value working in collaboration as she did, but instead used the criterion of "liking to have your own ideas" and rejected sharing ideas, calling this "copying."

In addition to developing their own teaching, some of the TIQL teachers worked in schools where a number of other colleagues were also engaging in research. Thus, it was possible to discuss what they were doing and begin

to develop new-shared understandings. This kind of work can be a valuable professional development experience for many individual teachers, but in some schools, with the support of a member of senior management, teachers undertaking research can also make a significant impact on the development of the curriculum as a whole. For example, in a large secondary school, Brian Wakeman, one of the deputy heads, coordinated a group of teachers who all carried out research into aspects of their pupils' understanding and in this way built up a picture of the kind of changes that it might be helpful for the staff as a whole to implement.

(after Wakeman, Alexander, Bannister, Nolan, & Aspray, 1985)

A few years later, Allan worked with PTARG, which was an example of a group of teachers who taught in different schools who came together to engage in collaborative action research on their practice as physics teachers. PTARG was formed in 1990 and met on a regular basis for three years. The teachers continued to meet occasionally through the year 2000.

Although the teachers helped each other with their research, each had his or her own focus. One of the teachers, Sean Fortrell, had as his starting point for research the dissonance that he noted between the students in two different levels of introductory physics. He found that those in the "Conceptual Physics" class put their effort into attempts to arrive at conceptual understandings of physics. Students in his other course, who he thought to be more able, were principally concerned with getting the correct answers to quantitative physics problems. When he talked about this dissonance at a PTARG meeting, one of the other teachers, Andria Erzberger, told of how she required her students to write down the "approach" that they used to arrive at a numerical solution. This idea, which she had got from a physics text, has the students writing down in words the way that they will go about solving a numerical problem. Sean began to have his students do the same on their homework so that they would begin by describing how they solve problems rather than by writing down equations.

At the end of the school year, Sean reported to the PTARG group what he had learned from the data that he had collected about using this method to encourage his students to think about a problem before attempting to solve it: "What I found was that some students were comfortable with this idea of writing down an approach and others were not. Those who were not generally did not do it very much. Those who were, I found, latched onto it and used it pretty much the year through, especially in test situations. Most of them used it when the problems were difficult and they were searching around for 'How do I do this?' They would really sit down and write out their steps. I'm not sure how well it necessarily helped them ... For those students who were really reaching and trying to figure out in writing their approach, it would make very clear [to me] that they had no idea of what they were doing. They would write

out an approach and you could see, 'This is what they're trying to do and it doesn't make sense. That's not the way it should be done.' Very rarely would you find a problem where somebody wrote down an approach in full and then went through and did it all, and did it all right ... And so, their approach didn't describe how they would solve the rest of the problem. So, sometimes it really helped them, other times it just showed that they didn't understand what they were doing."

While Sean's adoption of Andria's technique did not necessarily give him his hoped-for results, as the year went on the other teachers became aware through their discussion of Sean's project of a similar dissonance between their goals to teach conceptual understanding of physics and the students' concern with getting the right answer. Ultimately, a concern for students' conceptual understanding led the group to the agreement that their goal for the next year would be to develop teaching methods and assessment techniques that would encourage conceptual as well as quantitative learning in all students.

(after Feldman, 1993)

Looking back after all these years we are reminded of the deep impression these projects made on us from our different points of view.

- For Herbert and Peter, as visitors from Austria with experience in educational research and teacher education, it was important and unusual that the TIQL teachers not only saw themselves as “users of knowledge produced by professional researchers” but also did research themselves—producing knowledge about their professional problems and substantially improving their practice. In their developmental work the teachers sometimes made use of external support (for example, in-service training courses and external consultancy from the project team) but, on the whole, retained the initiative in the work themselves. It was impressive that the TIQL teachers were reflecting on their experiences and self-confidently discussing them in public, thus successfully overcoming the notorious disregard for teachers' knowledge and the tradition of teachers working alone behind closed classroom doors.
- For Bridget, as a TIQL participant, it was an opportunity to stand back after 12 years' experience as a teacher and analyze the complexities of teacher-pupil interactions and their impact on children's learning. For the first time she described, and theorized about, her professional practice and found that others were interested. She realized that as a teacher she had insights into classroom processes that were of value in developing educational knowledge.
- For Allan, as facilitator of the PTARG project who had himself just recently been a high school physics teacher, it was an opportunity both

to see how many ways in which teachers similar to him could work together to generate new knowledge about their practice and to learn about the practice of action research. As we noted above, Allan was at that time a doctoral student at Stanford University and was a student in a course on action research taught by Peter. In fact, Peter met with the PTARG teachers and helped them with the analytic discourse (M4.6), and provided the teachers with new ways to think about their learning. This can be seen in Sean's comments about action research:

It reminds me of what Peter Posch was talking about last time, he impressed on me the idea that it's often more useful, especially in this sort of stuff [action research], to not give the conclusions but to tell the whole story because you can glean so much more from somebody else's experience hearing the whole tale than you can if you hear 'I've found that this kind of student conversation is good and this is how you should implement.' It's kind of empty, it loses something.

(Feldman, 1993, p. 112)

In both of these projects, practitioners understood themselves as "teacher-researchers" and they are not alone. Through action research networks like the Classroom Action Research Network (CARN),¹ the Action Research Network of the Americas (ARNA),² and many other around the world,³ and through our interactions with practitioners in many schools and universities, we have met enough individuals and teams working in a comparable way to understand why some people talk about an action research "movement."

This edition of *Teachers Investigate Their Work* will be published more than ten years after the second edition and 25 years after the first, which was published in 1993. Since then there have been ups and downs of action research, and teachers and other practitioners have had to contend with shifts in policies and regulations that constrain their practice. However, when we wrote the second edition we noted that action research had become much more widely accepted among many professional groups as a methodology for supporting development and change. This trend has been sustained and therefore we will continue to include in this edition examples from a wide range of contexts and professions. Our experience has been that drawing on cases from different professional groups is enormously helpful in allowing us to better understand our own practice as action researchers. Differences destabilize our assumptions and make it possible to ask new kinds of questions about our own cultural norms. We invite you to explore whether this is also the case for you, by making conscious comparisons between your own professional workplace and those described in our examples.

In this book we attempt to collect and present in concise form the various ideas, methods, and strategies for research that have been developed by European and American action researchers in recent years—in particular, in the fields of in-service education of teachers (Feldman, Bennett, & Vernaza-Hernández, 2015; Kayaoglu, 2015; Reed, Davis, & Nyabanyaba, 2002), initial teacher education (Capobianco & Ní Ríordáin, 2015; Cochran-Smith, Barnatt, Friedman, & Pine, 2009), staff development in higher education (Zuber-Skerritt, 2015), curriculum innovation (Somekh, 2006; Tan & Atencio, 2017), and environmental education (Kyburz-Graber, Hart, Posch, & Robottom, 2006).

The purposes of action research

John Elliott, whose work has been influential in the action research movement, gave this well-known definition of action research:

Action research might be defined as *“the study of a social situation with a view to improving the quality of the action within it”* (original italics). It aims to feed practical judgment in concrete situations, and the validity of the “theories” or hypotheses it generates depends not so much on ‘scientific’ tests of truth, as on their usefulness in helping people to act more intelligently and skillfully. In action-research “theories” are not validated independently and then applied in practice. They are validated through practice.

(Elliott, 1991, p. 69)

This definition directs attention to two of the most essential purposes for doing action research: the improvement of professional practice and situations, and the development and testing of the practical theories that guide one’s own practice and can be shared with others.

Action research is intended to support practitioner researchers in coping with the challenges and problems of practice and carrying through innovations in a reflective way. Experience with action research for nearly 50 years has shown that teachers, nurses, social workers, community support workers, and other professionals are able to do this successfully and can achieve remarkable results when given opportunities and support. Teachers, for example, have not only carried out development work for their schools but have also broadened their knowledge and their professional competency. They have passed on this knowledge to colleagues, pupils, and parents, and, in written and other forms, to the wider public. They have shown that teachers can make an important contribution to the knowledge base of their profession. And they have demonstrated that they can engage successfully with professional problems without recourse to external direction. When practitioners have engaged in action

research they have gone beyond developing and testing new routines by constructing new theories about their practice, including a critique of its educational and social contexts.

These practitioners are “normal” teachers, nurses, social workers, and community support workers who reflect on their practice to strengthen and develop its positive features. They are not prepared to blindly accept the problems they face from day to day, but instead reflect upon them and search for solutions and improvements. They are committed to building on their strengths and overcoming their weaknesses. They wish to experiment with new ideas and strategies, rather than letting their practice petrify.

We believe that action research as we describe it above is exemplified in the definition that Allan uses, with reference to Lawrence Stenhouse (1981, 1983):

Action research happens when people are involved in researching their own practice in order to improve it and to come to a better understanding of their practice situations. It is action because they act within the systems that they are trying to improve and understand. It is research because it is systematic, critical inquiry made public.

(Feldman, 2007, p. 242)

Through our book we aim to encourage all professionals to investigate those aspects of their practice that they want to improve and develop in their daily work and their relationships with colleagues, clients of all ages, and managers or administrators. We want to provide a range of methods that can help them to gain a more comprehensive view of their situation, develop action strategies to bring about improvement, and evaluate the outcomes of their efforts.

We want to encourage professionals to share their experiences and, by this means, to give a degree of publicity to the professional knowledge that informs their practice. The book contains some suggestions to make this possible. We believe that sharing ideas with colleagues, and keeping the public well-informed about professional concerns and endeavors, can contribute to raising the self-confidence of professionals and, thereby, improving both performance and job satisfaction.

Finally, the book is intended to stimulate the various professional groups to recognize the value of their work to society as a whole, in particular by taking control of the development of their organizations, and of the identification and resolution of crucial professional problems. The current period of rapid social change, even as professional practice becomes more regulated, offers exciting possibilities to build a more dynamic culture across the social services. This implies a need, however, for professionals and their leaders, individually and collaboratively, to

reflect upon their practice, analyze the functioning of their organization and its strengths and weaknesses, develop perspectives for the future, translate them into actions and structures, and monitor their impact on real situations.

Getting started: learning to be a researcher by doing research

Familiarity with action research can develop in various ways: one way is to read about practical methods and theories, another is to study what other practitioners actually did in order to reflect on and improve their practice. The wealth of examples in this book as well as collections of action research case studies, for example, Cochran-Smith and Lytle (1993), Mohr (2004), and Kyburz-Graber et al. (2006), among others, and journals such as *Educational Action Research*, *Action Research*, *International Journal of Lesson and Learning Studies*, *Journal of Research in Nursing*, and *International Journal of Nursing Studies* may enable you to do this. However, the best way to learn to do it is to do it. That is why we have structured this book as a guide and resource for doing action research, while providing along the way insights that we and others have developed about the methodology. We like to think of this as two parallel strands—practice and theory—tied together through the engaging in the doing of action research. Therefore, we have structured the book so that, first, it includes a wide variety of practical suggestions that have been developed by action researchers for investigating and introducing innovation into their practice and practice situations. To do this we use many examples drawn from studies by practitioners. The book does not contain any complete case studies written by practitioners, but if you are interested in reading this kind of outcome of action research you can find them in the sources that we cited above and throughout the book.

Second, we also want to provide readers with the theoretical background of action research that underpins the methodological suggestions and gives them meaning. We do this from time to time as part of the process of clarifying the various research strategies, as well as in Chapter 10, which offers a theoretical grounding.

Carrying out research is a project and like any other project it requires good organization and a combination of prior planning and on-the-job adjustments to the plan, moving from the initial starting point to some kind of conclusion. As a professional teacher, health worker, or manager you already have skills in planning a complex project and carrying it through; and this book is designed to help you experiment with more specific research skills in data collection and methods of analysis, so that you will learn to develop tentative explanatory theories about your working practices as the basis for developing action strategies. Researching one's

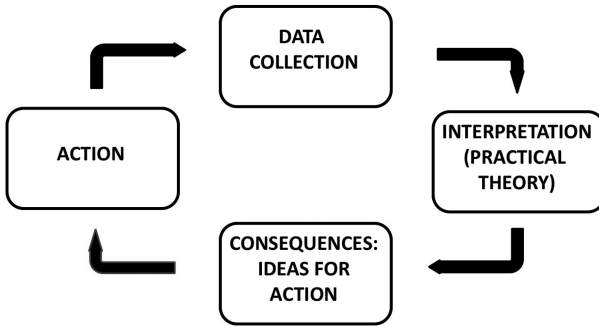


Figure 1.1 The circle of action and reflection.

own practice is immensely interesting and rewarding and, rather than thinking of research skills as something to be acquired in advance, we recommend you engage in small-scale research activities immediately and learn through experience.

The key to being a good researcher is not, however, just a matter of acquiring skills; it is important to understand the research process as an art to be continuously perfected rather than a set of procedures that can be applied unproblematically. There is never one clear, right answer to matters relating to human behavior, and research into social situations always involves uncovering the unexpected. To be a good action researcher you need to learn to reflect on what you do, speculate on the possible implications of every situation, and generate theories to be tested in action. Figure 1.1 presents action research as an iterative process that integrates theory with practice, through reflection and action planning.

Quick start guide in nine steps

In the dialogue that bears his name, Meno asked the following question of Socrates:

And how will you enquire, Socrates, into that which you do not know? What will you put forth as the subject of enquiry? And if you find what you want, how will you ever know that this is the thing which you did not know?

(Jowett, 1892, p. 80)

You may find yourself asking a similar question, “How can I learn to do action research by doing it if I don’t know what it is?” Rather than respond to you the way that Socrates did to Meno, we will rely on a technique developed by the educational psychologist David Ausubel.

He showed that learning new material is enhanced when students have a framework on which they can construct their new understanding. He called this type of framework an advance organizer: "I define advance organizers as introductory material at a higher level of abstraction, generality, and inclusiveness than the learning passage itself" (Ausubel, 1978, p. 252). The way that we provide you with this is with a quick start guide to action research so that you can get an overall sense of the whole process as nine components. Because they are all interrelated and not necessarily sequential we present them as a bulleted rather than numbered list.

- ***Identify a research support group***

If possible, you need to establish yourself as part of a group that can share experiences and provide mutual support. Often a research support group is made up of people who are not all from the same workplace. The important thing is for all members of the group to be involved in their own research, and to agree to meet regularly and be good listeners for one another. There are various strategies described in the book, such as analytic discourse (M4.6), that help groups to provide each other with high-quality support. In addition, Chapter 3 includes some of the different ways that action research can be done by groups.

- ***Identify your collaborating research partners***

These are usually people directly involved in the situation you will be researching. They might be colleagues or clients (children if you are a teacher). When you are choosing them, remember that the more closely involved these partners are in your research the more powerful it is likely to be in terms of bringing about change, but the less control you will have over the direction of the change.

- ***Begin keeping a record of your research activities***

This is often called keeping a "research journal" and Chapter 2 provides a lot of ideas about different kinds of research diaries, their purposes, and how to make them most useful to you. The key idea is to build up a record of all the impressions and ideas that come to you in the course of your professional activities so that you can think back on these over the weeks and months to come. On the day itself and the one or two days following, these are vivid and powerful but they are only held in short-term memory and will soon be lost if they are not written down. As you are more and more involved in researching your practice, the focus of your research journal will shift to more explicit recording of research activities.

- ***Decide on the starting point for your research and begin investigating it***

This is discussed in Chapter 4. Starting points can be of many different kinds. There may be some aspect of your professional practice that you find problematic and would like to investigate in order to understand it better. You may want to develop a new approach to some aspect of your practice in order to improve it. You may have a very specific question you want to investigate, but more likely you will just have a general area of interest. One of the reasons that we call it a starting point is that you are likely to change or refine your area of interest once you start researching. So how you start is not nearly as important as starting.

- ***Clarify your starting point***

This is the process of progressively refining your area of research through beginning to collect data and analyze it. It is discussed in the latter half of Chapter 4. You may find that your original focus is considerably changed during the early stage of your research. Sometimes this stage can be frustrating because data analysis is an important skill that you need to develop over time, so you may not immediately see anything very significant in your data. However, this stage can sometimes be very exciting as you begin to see things from new points of view. There are several methods and strategies (Ms) in Chapter 4, some to be carried out alone, and others involving your support group in giving mutual help with this process.

- ***Collect data systematically***

Data collection has already been an important part of your research in the components described above, but Chapter 5 gives a lot of ideas for different methods of collecting data more systematically. It is important to experiment with different approaches and learn how best to collect rich data. For example, interviewing is a complex process and different approaches to interviewing will result in very different accounts from the same interviewees. Some data are in this sense richer than other data. But what counts as rich will vary and is very much a decision for you to make. Comparing different kinds of data and discussing how they were collected and what makes them more or less rich is always a very useful focus for the research support group.

- ***Analyze data***

The most fascinating, but also initially the most difficult, part of the research process is data analysis. Typically, new researchers find it difficult to “see”

what is significant in their data, but there are a number of techniques that are very helpful and the methods and strategies (Ms), as well as the more detailed theoretical discussion of the process of analysis, in Chapter 6 should make this stage of becoming a researcher particularly interesting and rewarding. Once again, involvement of your support group and/or research partners will make an enormous difference to how quickly you can acquire the necessary sensitivity to data to become good at analysis.

- ***Developing action strategies and putting them into practice***

In practice, as soon as you begin recording your impressions and reflections in your research notebook you will feel the urge to start taking action. This very immediate feedback from research into practice is one of the great benefits of professionals getting involved in action research. When you are beginning to develop greater competence as a researcher, you will be able to plan action strategies more systematically on the basis of practical theories you have developed. This process is described in Chapter 7. When action strategies result in the improvements you aimed for, it takes your research one further step forward by demonstrating the utility of your practical theories for improving practice situations.

- ***Make your knowledge public***

Lawrence Stenhouse (1975, p. 142) defined research as “systematic inquiry made public,” and however powerful your research is for your own professional development or the improvement of your practice situation, we believe that, following Stenhouse, for it to be research it must be shared with others. In Chapter 8 we discuss the many different ways that professionals can make their research knowledge public, and the reasons why this is important for both the status of the professions and the benefit of clients (students, patients, etc.). In practice, action research is never a “finished” process because each set of “findings” gives rise to new ideas for action strategies, and another cycle begins. However, it is important to decide on a cut-off point and write up the research and/or present it formally to an interested group (for example, peers, parents, administrators, or policy makers). When accounts of multiple but related action research studies are brought together for cross-case analysis, the findings become increasingly stable and capable of informing the action strategies of other professionals working in comparable settings (Somekh, 2006).

An important cautionary note is that much of what is written about action research, including this book, may give the impression that it is a step-by-step method that follows a set pattern called the “action research cycle.” For example, the nine components of our quick start guide above proceed from data collection to data analysis to the development of action strategies,

and finally to the implementation of those strategies. Unfortunately, when action research is represented as a step-by-step cyclical process it may then be implemented as such by practitioners. As a result, we may hear them making statements such as “I’m in the reconnaissance stage of my first action research cycle” or “I’m getting ready to start my second cycle.” This rigid interpretation of the methods of action research can get in the way of reflection and action on reflection on a continuous basis (see the discussions of reflection-in-action and reflection-on-action in Chapter 10). Unlike those engaged in more academic research in which it is possible to spend months or even years on the collection and analysis of data, and then making the results public, practitioners engaged in action research need their inquiries to be useful within the time frame of their practice (Feldman & Atkin, 1995). For teachers it could be the next class and for nurses or social workers the next patient or client. Instead of this rigid model of what it means to engage in action research, we think of it being a process in which these steps happen almost simultaneously in a continuous set of “mini” action research cycles as the doing of research and engagement in practice interact seamlessly with one another. As you read on through Chapters 2–8, keep in mind this notion of mini-action research cycles and how they constitute the larger action research cycle.

Features that distinguish action research as presented in this book

There are many different conceptions of action research, or more broadly, practitioner research (see, for example, Feldman, 2017; Lytle & Cochran-Smith, 1990; Zeichner & Noffke, 2001). In writing this book we draw most closely on the traditions of action research deriving from the work of Elliott and Stenhouse, which in turn draws heavily on the work of Dewey and Bruner. We present our stance on action research in the following five principles:

- 1 Action research is carried out by people directly concerned with the social situation that is being researched. In the case of the social situation of a classroom this means in the first place teachers who take professional responsibility for what goes on in the classroom. While action research will usually be initiated by individual practitioners (teachers, nurses, social workers, etc.), sustainable improvements will rarely be possible if other concerned persons do not become won over to its purposes. According to the problem being investigated, these might include in the case of teachers: students, parents, administrators, or representatives of the local community. In the case of nurses, they might include patients, their families, physicians, and health insurance administrators. Thus, the long-term aspiration of action research is always a collaborative one. In cases

where action research begins as a more private and isolated concern, external consultants are often involved, for example, from higher education institutions. However, we strongly believe that in these cases the role of the outsider is to provide support and not to take over responsibility and control over the direction and duration of the project.

- 2 Action research starts from practical questions arising from everyday professional practice. It aims to improve the practice situation, the knowledge and skills of the action researchers, and to make this new knowledge available to others.
- 3 Action research must be compatible with the educational values of the workplace and with its working conditions (see Chapter 5 for a more extensive discussion of this point). However, it also contributes to the further development in the direction of increased social justice for all involved.
- 4 Action research offers a repertoire of methods and strategies for researching and developing practice that is characterized by a sensible ratio of efforts to results. Methods are tailored to what is achievable without overly disrupting practice or placing too large a burden on the action researcher and other participants.
- 5 Action research is characterized by a continuing effort to closely inter-link, relate, and confront action and reflection; to reflect upon one's conscious and unconscious doings in order to develop one's actions; and to act reflectively in order to develop one's knowledge. Both sides will gain thereby: reflection opens up new options for action and is examined by being realized in action.

The contents of the book and how it might be used

Our intention in writing this book was to introduce readers to action research. It is primarily for professionals who want to engage in innovation and improvement in their practice situations. The most rewarding use of this book will be for those who are prepared to engage in an action research process alongside their reading. They can make immediate use of the suggestions and proposed strategies while, at the same time, critically examining and further developing them. In this way, the book is intended as a source of practical support for those engaging in research, without in any sense being prescriptive.

Notes

- 1 CARN is an international network linking all those interested in action research through regular conferences and publications. See the CARN website for up-to-date information: <https://www.carn.org.uk>

- 2 “ARNA was initially organized in 2012 by five ‘network initiators’ with a vision to support and promote a wide variety of forms of participatory research that would be shared to increase knowledge production, knowledge dissemination and knowledge democracy for critical, social, educational and environmental issues in the Americas and beyond” (ARNA, 2017). See the ARNA website for up-to-date information: <http://arnaweb.org/>
- 3 For information about the many different networks see Part III Action Research Networks in Local and Global Contexts of *The Palgrave International Handbook of Action Research* (Rowell, Bruce, Shosh, & Riel, 2017).

The research journal

Companion to the research process

Much of what is written about action research, including this book, suggests that it is a step-by-step method that follows a set pattern called the action research cycle. However, while this pattern is a useful way to talk, write, and learn about action research, the practice of action research is often more complex because it is research on ongoing practice. That is, even as we collect data, we are immersed in the practice we are studying. The collection of data affects our practice directly and indirectly because as we collect data we become more knowledgeable about our practice, which changes the way we talk about it and the way we choose to act in our practice situations. The converse also occurs—as we engage in our practice we become aware of new aspects and contingencies that affect our choices of starting points and data collection methods.

What this suggests is that as we go through an action research cycle, we are actually going through many “mini” action research cycles as our doing of research and our practice interact with one another. As we proceed through Chapters 2–8, we will return to this notion of mini-action research cycles and show how they constitute the larger action research cycle. We begin with the research journal.

The research journal is one of the most important research methods and is very commonly used by practitioners doing research on their practice. It also makes a good way into research. We want to suggest that you regard it as a companion to the whole research process, rather than simply as a means of collecting data or recording analysis. Our suggestions for writing and using research journals are based on personal experience as well as experience of working with others keeping similar journals. At the end of the chapter we provide some exercises that should make it easier to start a research journal. For the most part our experience has been with either paper journals or ones using computers to type into text documents. In the ten years since the publication of the previous edition of this book, various types of social media using Web 2.0 applications on all types of devices, including smart phones and tablets, have changed the conception of how one would keep a journal. We believe that much of what we have to say

below, which is based on our and others' experiences with paper journals, also applies to ones kept using new technology. The most significant difference is that journals can now be interactive in real time. It is no longer necessary for people to physically come together to read, reflect, and comment on each other's journal entries. We provide some examples and suggestions as to how this can be done in the M exercises later in this chapter.

The role of journals in research

There is a long tradition of using journals for research and scholarship. "From the very beginning of European culture texts have been written with the aim of increasing self-understanding, becoming aware of self-delusions, and articulating and reducing pain" (Werder, 1986).¹ Journals in which the self and its surrounding conditions were investigated include Saint Augustine's *Confessions*, *The Country Diary of an Edwardian Lady*, *The Diary of Lady Murasaki*, *The Diary of a Young Girl*, and *Twelve Years a Slave*. Published accounts like these stand out in a sea of anonymous journals by writers whose reflections on themselves and on their everyday lives remained unpublished. At first sight, such journals may appear to us as self-reflective or introspective texts or as "literature" but only rarely as research. This does not mean, however, that introspective journals cannot lead to important insights or that they are necessarily self-indulgent.

In many disciplines, journals hold a central position in which researchers recall the fruits of their daily observation in the research field: for example, in zoological field research, DeVore's (1970) journal containing his observations on the behavior of apes; or in ethnographical research, Malinowski's (1982) use of a journal to record his detailed observations. Qualitative sociological research makes intensive use of research journals in building up thorough insights into the functioning of institutions through participant observation and through conversations with key informants: for example, the famous studies of the Chicago School, such as Whyte (1955) and Cressey (1932). Whether they are called journals, log-books, field notes, or laboratory books, these records are important companions to the research process.

There is also a tradition of using research journals in *qualitative educational research* as a result of the influence of ethnography and sociological field research. Examples include the highly readable ethnographies by Alan Peshkin (1988). An early example of this qualitative school research is Philip Jackson's *Life in Classrooms*. In this book, the author tried to "move up close to the phenomena of the teacher's world" (Jackson, 1968, p. 159). As a participant observer he had to use a mixture of methods and perspectives since "classroom life ... is too complex an affair to be viewed or talked about from any single perspective" (p. vii). More recently, Jackson had turned to autobiographical methods to reflect upon his experiences as a

pupil and a teacher to delve into the complexities of teaching and learning (Jackson, 1992).

Given this tradition of the use of research journals in educational research, it is not surprising to find articles and books that argue for their importance and provide methods for keeping a journal. Valerie Janesick (1999) provides a particularly persuasive argument. She sees research journal writing as providing an opportunity for us to reflect on the words, beliefs, and behaviors that we include in our journals. It also provides a way for us to question our assumptions, assertions, and conclusions. This is important because, as Janesick reminds us, when we do qualitative research, we are the research instrument. In addition, through journal writing and reflecting on what we have written we can clarify through the reflection and the writing process involved in journal writing the roles of the researcher and participants.

Another qualitative researcher, Simon Borg (2001), has written about what he has learned about doing research on language teaching through the process of keeping a research journal. Borg defines a research journal as “a form of reflective writing which researchers engage in during a project and through which they document their personal experience of the research process” (p. 157). As a result of analyzing his own journals, he found that by keeping it, it helped him to better understand his research situation and write up his report, and to assuage anxiety and deal with negative feedback. In addition, Borg’s research journal served as an educational archive (Holly, 1989) of his research experiences that he analyzed retrospectively. By treating his journal as data, he found that he benefited from having kept the journal in the following ways:

- 1 It served as a reminder of past ideas and events that guided subsequent action.
- 2 It provided a record of plans and achievements that facilitated evaluation.
- 3 It supplied an account of events and procedures that allowed a more detailed write up of the study.
- 4 The journal allowed me to recall and to reproduce the thinking behind key decisions in my work.
- 5 The research journal comprised an instructive narrative of my professional growth.
- 6 The journal provided physical evidence of progress that gave me a sense of achievement and motivated me.
- 7 The journal provided an account of experiences and ideas that, when returned to, often sparked off further insights.

Action research has drawn upon this tradition of journal keeping in educational research. Research journals containing observations, ideas, and,

plans (Attard & Armour, 2005) have been increasingly used during the past years by those interested in action research (for example, Glover, 1993; Strieb, 1985). For example, Fuller (1990) and Williams (1990) made a journal the basis of their data collection to investigate ways of enabling children to become more autonomous learners. Similarly, Griffiths and Davies wrote critical autobiographical journals of their experience conducting a series of action research cycles into aspects of equal opportunities in the classroom (Griffiths & Davies, 1993). It is important to note that its legitimacy as a research method has increased dramatically in the past ten years as narrative forms of inquiry, including autobiography, memoirs, and autoethnography, have become accepted forms of educational research (Attard & Armour, 2005; Carless & Douglas, 2010; Elbaz-Luwisch, 2004; Ellis & Bochner, 2000; Quicke, 2010). In fact, for some, journal writing has become synonymous with practitioner research (for example, Griffiths, 1994). In North America, this has been due largely to the influence of the Writing Projects (Jago, 2003; Lieberman & Wood, 2002). These local collaboratives of teachers of writing and of literacy practices have made teacher research a central part of their work, with the process of journal keeping and reflecting in and on it being the prime research method (Holly, 1989). As Holly has noted, "keeping a journal can facilitate observation, documentation, and reflection on current and past experiences, including one's life history and the social, historical, and educational conditions that usher in the present" (p. ix).

We believe that journals have a special role in action research, in addition to all that we described above.

- 1 Writing a research journal *builds on an everyday skill* of many practitioners. In this sense, writing a research journal is simpler and more familiar than other research methods, such as interviewing. In addition, journal keeping is easier to organize than most other research methods. It is always possible to make a journal entry, on paper or electronically, if time is available, whereas to carry out an interview you need to set up a meeting with the person who is willing to engage in a dialogue with you, using questions that may or may not have been prepared in advance.
- 2 A research journal *can also contain data collected by other research methods*. For example, it is a good place to record notes from unstructured observations or the description of the context and conditions of an interview just carried out. In this way, the research journal becomes similar to the laboratory notebook kept by scientists. Scientists' laboratory notebooks contain their hypotheses and research questions, their research design, the data that they collect, and their data analysis. They also make records of their discussions with colleagues and any ideas that come to them during the course of the research. In short, the

- laboratory notebook is as much as possible a complete record of the research endeavor. Although you may not want to use your research journal in this way, the point that we are making is that it can be used for much more than purposes of reflection.
- 3 Short memos or ideas about the research issues can be recorded frequently in a research journal. Because of this *continuity* a research journal can develop a quality that makes it more valuable than other research methods: it becomes a companion of your own personal development through research; it links investigative and innovative activities; it documents the development of perceptions and insights across the different stages of the research process. In this way, it makes visible both the successful and (apparently) unsuccessful routes of learning and discovery so that they can be re-visited and subjected to analysis (Borg, 2001; Holly, 1989; Janesick, 1999).

To sum up, on the one hand, research journals can contain *data* that are obtained by participatory observation and by conversations and interviews in the field, sometimes enriched by explanatory comments and photographs; on the other hand, they can contain written *reflections* on research methods and on your own role as researcher (perhaps similar to the conversation of the ethnographer with him or herself in a foreign culture). In addition, ideas and insights can be noted that lead to the development of the theoretical constructs that in turn can be used to interpret the data and guide action. Keeping such a research journal ensures that data collection is not artificially separated from reflection and analysis, nor from your actions as a practitioner. Corbin and Strauss (2015) have emphasized that analysis accompanying such data collection should be actively used for the further development of research: preliminary results of an analysis show which data are still necessary to fill in the gaps in a theoretical framework and to evaluate intermediate results through further investigation. In addition, the regular keeping of a research journal in which you record data and reflections and other interpretations results in an almost continuous stream of the mini-action research cycles that we discussed above.

Some suggestions for writing research journals

In this section, we present some ideas and suggestions for writing research journals. These are based on our own experiences, some of which have been positive and others frustrating, but all of which have deepened our understanding of journal keeping as an instrument for action research.

Writing a research journal is an individual matter. In due time, every journal writer develops a style and idiosyncrasies that are an important part of making journal writing valuable as a research method. For this

reason, our recommendations are offered only as suggestions that you should adopt or reject after due consideration. Many of them are similar to those suggested by Progoff (1992) in his intensive journal workshop and those of Rainer (1978) based on the workshop that she taught with Anaïs Nin.

Getting started with your journal

- 1 Journals should be *written regularly*, at times that fit in with the kind of research question being investigated, for example, after each lesson in which a particular teaching strategy has been implemented, or after each meeting with a “difficult class.” Some people find it is useful to reserve specific periods of time for this activity by writing them into their timetable, to prevent journal keeping being drowned in the whirlpool of daily necessities. These “journal times” can then be complemented and expanded by irregular recording of relevant scenes, experiences, and ideas.
- 2 People who are not used to journal keeping often experience some barriers to establishing the habit. Sometimes it is necessary to go through a difficult period before journal keeping becomes personally satisfying. When deciding whether the exercise is worth the time and effort, it is worth considering its side effects. For example, regular journal keeping generally increases the quality and speed of one’s own written articulation. We found journal keeping easier if we collaborated with a research partner to whom we could read extracts from our text and talk about them. This, in turn, had spin-offs in terms of increased understanding that enriched the whole research process.
- 3 The above suggestion, however, does not take away from the *confidential nature of a journal*. The decision to make parts of it available to other people should always remain with the author. It is particularly important to stress this again and again in projects, courses, and workshops in order to prevent the recurring subtle, social pressure to go public, on the principle, “I have said something, now it’s your turn.” The assumption that entries in a journal are confidential gets severely tested when Web 2.0 applications like blogs and wikis are used. We discuss this below.
- 4 Feel free to disregard *considerations of style or punctuation* while writing it. Self-censorship often disturbs the free flow of thoughts; this can come later if the results of your research activities are to be published. Again, this recommendation may need to be modified for web-based journals. You may want to have a two-step process in which you first write freely in the style suggested by Peter Elbow (1998) in M4.5, and then refine it for posting on a website. In any case, remember that because it is *your* journal, you need not share it with anyone.

How to keep a research journal

- 5 For the most part we have handwritten our journals in notebooks (of more than 40 pages). We have found that these become more and more “elegant” the more we enjoy journal writing. With the advent of highly portable devices like tablets, some may find it as convenient to keep their journals electronically. Some people use a computer to keep their journal. While this makes it easier to do subsequent data analysis and to include non-textual material such as photographs, videos, and audio files, computers are not as portable or accessible as a notebook or tablet.

Other researchers write their notes on loose leaves that they can file later under different categories. An elementary school teacher, who focused on introducing innovative methods of teaching reading, wrote her journal notes on colored sheets that she put between the white sheets of her lesson notes. In this way, she obtained a good record of the relationship between plans and the experience of putting them into action. Find a form to suit yourself—the most important part of keeping a journal is writing.

- 6 No matter what form you use to record your journal entries, it is important to be able to record changes, additions, or references to other parts of the research journal or to other data, at a later date. This is especially helpful for the analysis of journal data (to which we will return in Chapter 6). Notes (from single words to sentences) can be entered indicating the meaning or interpretation of a journal sequence within the framework of your research aim. Having a way to revisit and make notes and comments is also important for coding and for identifying examples to illustrate particular concepts (see M6.2).

When we write in our notebooks we leave a wide *margin* on each page for this purpose. Generally, we use different color ink to record provisional codes or analytical commentaries on journal entries, because it contrasts with the ink of the normal text and catches the eye more easily. This can, of course, be done using the applications that you would use on a digital device by using highlighting, comments, strikethroughs, and other reviewing tools. This process is illustrated in the journal extract that follows in the next section.

- 7 Each entry should be accompanied by the following information:
- the date of the event (and date of the written record if it took place on a different day),
 - contextual information, such as time, location, participants, focus of study, and anything else (such as unusual weather or a fire drill) that seems important for the research.

If this is ordered in the same manner for all entries, it is likely to be easier to “read oneself back in” to the data at a later date.