Creating and Translating Knowledge about Teaching and Learning

CHAPTER CONTENTS

• How can teacher enquiry develop knowledge about teaching and learning?
• What is the link between teacher enquiry and action research?
• Does working in collaborative partnerships support the sharing of knowledge about teaching and learning?

I learned more from watching the video of one lesson than I did from 25 years in the classroom.

You can learn so much yourself from just listening to what the students have to say.

There has been a buzz in the staffroom with everyone sharing their ideas.

This book is about teachers as learners, finding out more about what is happening in their classrooms and contributing to our understanding of the processes of teaching and learning in today's schools. It is also about developing partnerships between teachers and university researchers in which distinctions between theory and practice are challenged and expertise is distributed as we learn together.
2 Action Research in the Classroom

The suggestions, advice and practical tools included in this book have been developed through over ten years of collaboration with teachers investigating different aspects of learning across all phases of schooling from the foundation stage to the sixth form. Our work has been with teachers and students in Initial Teacher Education working in the education system in England and is grounded in that experience, but we have also been able to share what we have learned with people working in other education systems who are interested in enquiring into their practice. Our intention in writing this book is to provide a record of what we have learned together through a series of enquiries and as such it is both a guide to how an enquiry might be conducted and also a reflection on the processes.

Trying to present some ideas for teachers beginning to enquire into what is happening in their classrooms whilst also making reference to different forms of action research and the place of teacher enquiry within education research could result in this book falling between two stools. It is our hope that the book functions more as a rope bridge connecting the practice of teacher enquiry with the wider debate on the creation and translation of knowledge about teaching and learning. The analogy conveys the sense of improvisation, provisionality and risk that we believe to be an integral part of our work in learning together across different institutional contexts. We have included case studies written by teachers as illustrations of how tools have actually been used and issues tackled in classrooms. We also provide suggestions for further reading that include references to contrasting perspectives on teacher enquiry, action research and the use of methods beyond the scope of this introductory book.

Teacher enquiry

During the course of their careers teachers acquire a body of knowledge about teaching and learning which is shaped by their experiences in classrooms and their values about the purposes of education. Teachers are often unrecognised innovators and problem-solvers who take the raw materials of the curriculum and recommendations about good practice and adapt them to their personal and professional environments. This capacity to make adjustments is a recognised feature of not only the most effective teachers, but also of those who are most satisfied in their professional lives (Huberman, 2001; Hattie, 2003). However, the judgement regarding the ‘best fit’ of practice to context tends to be intuitive, based on an absence of negative feedback and sensitive to considerations of time and resources. As such, it has been described as tweaking or fine-tuning, as it has more of the characteristics of the way in which a craftsman develops and deploys expertise rather than those of a professional (Hargreaves, 1999; Huberman, 2001). In this book we begin to explore what happens when teachers engage in more sustained, explicit processes of enquiry in their classrooms and the extent to which a more robust body of professional knowledge can be shared across specific contexts is possible.
The evidence provided is not incontrovertible but, clearly, there is a good chance that a successful change to the Year 3 geography curriculum, focusing on peer talk and collaboration (for example) might work again next year, even though the children in the class will be different. However, the Year 3 teacher has changed, simply by being involved in the enquiry: her perspective on geography teaching has shifted. She wonders, will it work in maths? The group she teaches in maths is a lower-ability set – will that be a factor? The evidence generated by a single cycle of enquiry is the raw material for generating the next series of questions, so action research is conceptualised as a series of linked enquiries. Just as learning is an ongoing process, which builds and develops from experience and need, so enquiry can transform not just the practice of teachers, but their understanding of that practice and give them a range of tools for reflection and self-evaluation.

The relationship between research, policy and practice in the production and deployment of knowledge about teaching and learning is complex and subject to critique (Hammersley, 2005). Nevertheless, current conceptions of teaching as a profession—such as the new standards for teachers (Training and Development Agency, 2006)—assume that a productive relationship between these aspects is both possible and desirable, although they are often vague as to the exact nature of the dynamic involved. Figure 1.1 indicates how different types of research in education might interrelate with these domains. Our principal concern is with the interaction of theory and practice in the engagement of teachers in research into teaching and learning in their own classrooms: the research engaged professional.

We want to know how teachers can be ‘research engaged’ in a way that is both manageable within their existing professional responsibilities and also sufficiently robust to effect real change. We look at how an enquiry approach can provide an evidence base that is not only relevant to the individual but which is shared. This sharing takes place over an expanding network from colleagues in school to a

Figure 1.1 Different types of educational research within the theory–practice–policy dynamic
collaborative community of researching teachers and is subjected to scrutiny and validation. Participants contribute to a shared understanding of learning and teaching, including which things work within specific contexts, which elements are ‘translatable’ between contexts and which underpinning processes are common to learners.

### Teacher enquiry and action research

So far we have been describing the process of research into practice in terms of teacher enquiry and it might be easier to continue to do so if it were not for the fact that we also draw upon aspects of action research. In the following section we offer a perspective on how we link teacher enquiry with action research in our work. We do so knowing that we run the risk of failing to satisfy those who are already familiar with the issues by saying too little, whilst distracting those who simply want to learn more about what we actually did. It is not the purpose of this book to add to the growing literature about action research but rather to provide an account of our collaboration with teachers to develop knowledge and understanding of pedagogy. Nevertheless, we recognise the need to acknowledge the wider debate and give some indication of where we position ourselves regarding the role of action research in the investigation of classroom practice. For those interested in pursuing this further we include references at the end of the chapter which engage with the issues in greater depth.

For the teachers, research is made manageable through two interrelated processes: the identification of the focus of the enquiry and the generation of questions and exploration through a cycle of action research. We believe that a cycle of action research fits alongside and is complementary to the model of plan–do–review underpinning teachers’ practice (see Figure 1.2). As such, there is no requirement for the teachers to ‘bolt on’ or overlay another layer of ‘research practices’, rather they select research tools which fit with their teaching environment and use those to generate the necessary feedback in a systematic way; in this model of working it is only a short step from feedback that informs the next stage in the enquiry to evidence that is open to public scrutiny. Examples of case studies of the enquiries completed by teachers using this model are included in this book to illustrate how they have developed and customised research tools and approaches to meet the needs of their own contexts.

There are internal tensions in action research, which are best understood as opportunities for understanding and reflection about the enquiry. Whether they are consciously addressed or not, the variety of ways in which these tensions are resolved accounts for the diversity of projects under the ‘action research umbrella’ as the various re-combinations of DNA account for diversity in a species. For example, when surveying a group of cats, we will be aware that they have a number of core characteristics in common which identify their purpose and the way in which they operate – however, they also have a great many variations and adaptations to circumstance. Nevertheless, we recognise that a lynx, a tiger and a
tabby cat are similar enough to all be ‘cats’ and that there is no purpose in regarding tigers as inherently ‘better’ than lynx. What is interesting and useful is to explore what the differences between them mean for the way in which they operate in the world. So what are the key elements of action research which differentiate lynx, tigers and tabbies? Action research by definition requires purposeful enquiry into practices but the experience of individual researchers differs as the particular elements are combined.

Drawing on our experiences of working together on a number of projects with teachers we have constructed an understanding of action research that reflects the variety of practice but which is more than merely descriptive. We suggest that such understanding comes from the interrelations between three key aspects common to all research (see Figure 1.3):

1. the intention of the enquiry
2. the process by which the enquiry is pursued
3. the audience with which the enquiry is shared.

**Intention**

**Agency**
This refers to the extent to which the individual teacher-researcher has control of the focus of the enquiry, the methods used to pursue the project, the analysis and interpretation of data and the way in which the project is made public. In some research projects, one or more of these elements is controlled by other agents – a university research team, or senior managers at school or LEA level, for example.
6  Action Research in the Classroom

**Impetus**
The problem posed that stimulates the enquiry and provides the focus for the action research can come from a number of different sources: it can be an issue of concern at an individual teacher level, amongst a group of colleagues, across a whole school or group of schools. It can come from an experience in the classroom, from a question posed by an INSET session, a professional journal or from discussion with colleagues and managers. The impetus for the enquiry will have implications for the processes followed and the primary audience and have an effect on the dynamics of the action research cycle itself.

**Process**

**Tools**
This refers not simply to the research methods employed: the observations, questionnaires, interviews or test scores but the extent to which each method provides data which operates on more than one level. A pragmatic research tool simultaneously contributes to answering the research question and gives feedback information that enriches the learning and teaching in progress.

**Analysis**
The analytic process is one in which, broadly speaking, there is either a progressive narrowing of focus to assemble evidence to either prove or disprove a hypothesis or there is a broad mapping of the data collected in order to generate a rich description and a new hypothesis.

Figure 1.3 Model of the dynamics of the action research cycle
Audience

Voice
Dissemination is a key part of every project, but the extent to which it is prioritised reveals something important about the purpose of the enquiry as identified by the individual researcher. Is the intention to set in motion specific changes in pedagogy and practice, necessitating active dissemination well beyond the immediate environment, or to set up a ripple effect, whereby the impact of the research is most keenly felt in the immediate vicinity but may spread out through recommendation and colleagues’ reports?

Critical community
This refers not just to the final presentation of results from an enquiry, but to how the researcher is placed in relation to others, from the initial idea, through the process of data collection, re-framing questions and analysing findings. This community may be other practitioners, other researchers or partners in universities. In terms of extremes on the continuum, there is at one end the ‘lone’ researcher, at the other, there is a formal team with clearly defined roles. However, the points of contact are important less for the number or the length of time, than for the extent to which they both support and challenge the researcher. The role of the community is dynamic, providing an arena in which teacher-researchers feel confident to share their experiences and findings but also one in which they can expect to be asked tough questions. In this way, the quality of research and the learning of individuals and communities of practice are promoted.

Diversity in action research

In the model in Figure 1.3 we have put intention at the top and this reflects our belief that the enquiry, the burning question, the personal interest, is the key to the development of the research engaged professional. Engaging in enquiry requires teachers to access strategic and reflective thinking, considering the meaning of their activity in holistic as well as analytic ways:

This kind of thinking is important when embarking on activities which make considerable demands on a person, such as an academic or vocational course or project. It can also be extremely valuable in dealing with ... a challenge to an assumption, belief or a communication problem. Most significantly, it is what changes what could be a routine process into a learning experience. (Moseley, Baumfield et al. 2005: 315)

It is by focusing on the intention of the action research that the impetus of the enquiry and the agency of the teacher are made explicit, and strategic and reflective thinking can be most readily accessed. This is not, however, the only orientation for action research and Figures 1.4, 1.5 and 1.6 represent other possibilities.
In Figure 1.4 intention and process are privileged over the demand to address an audience beyond the teacher or teachers involved. This version of action research is sometimes described as therapeutic. The aim is to engage in a process of self-transformation through the process of enquiry and whilst this may be made public, the main intention is to change the individual and impact on their practice.

Figure 1.5 illustrates how the trend in policy-driven initiatives to promote evidence-informed practice has tended to privilege the orientation of activity towards the audience for the outcomes rather than focusing on the process or the intention dimension. The main intention here is the sharing of good, or best, practice and the engagement of teachers, policy makers and researchers in dialogue and the exchange of ideas. In some representations of this view, the teachers' enquiry is a precursor to a more considered engagement with existing research; engaging in research in order to engage with research.

Action research located within more traditional academic contexts tends to orient the process away from explicitness on the intentions of the activity towards concentrating on the process and the audience (see Figure 1.6). Whilst the
intentions are important the value of the activity is seen as being located in the integrity of the processes involved and the aim is to create public knowledge and so audience is a prime concern.

It is important to emphasise that the model of the dynamics of the action research cycle recognises that all three components are present within the different orientations and it is not a matter of judging one against the other but simply being aware that different criteria, different warrants for action, are afforded by the different configurations. Whilst it may be possible to locate particular projects within one of these orientations, they would also incorporate aspects found within other approaches. Problems arise with judgements made from a perspective that privileges one particular orientation and finds any other approach to be deficient rather than different. The standards used to judge the outcomes of research are by no means unproblematic and this is one of the main anxieties of teachers new to research. There are key elements – clarity of reporting, appropriate application of methods selected, ethical considerations – which would be expected in any research project. In our model, the rigour of an individual project is determined by the extent to which the particular orientation is made explicit and subsequently, how well the different aspects are integrated.

**Partnerships**

Underlying our approach is the principle of ‘systematic enquiry made public’ (Stenhouse, 1981). The teachers whose case studies inform this book identified questions and initiated changes in their classrooms that were of interest to them and designed an enquiry that was meaningful in their context. The intended audience for this enquiry was characterised as a ‘sceptical colleague’ who needs to be convinced of the value of the investigation and its outcomes. The enquiries were usually conducted by pairs of teachers within a school and situated within a supportive network of teachers and university researchers, who operated as co-learners:
crucially, the results of the enquiry have to be related meaningfully both within and beyond their immediate context.

Teacher enquiry has been criticised for the difficulties of generalising results from projects beyond their specific context. Whilst it has high validity for the teacher and the school within which the research was completed, its reliability and transferability can be questioned. This means that the role of partnerships in supporting the teacher-researchers can be crucial. The collaborative nature of enquiry into teaching and learning, which is a feature of many current models of action research in schools, is important, as this helps teachers to develop a professional discourse about learning and provides opportunities for the sharing of ideas across different institutional contexts. Collaboration is a significant aspect of professional development in schools (Cordingley, et al., 2005) and this book represents the outcomes from partnerships with schools in a range of different contexts and over a number of years in which the crossing of boundaries has stimulated reflection and enquiry into the processes of teaching and learning in classrooms (Baumfield and Butterworth, 2007).

**Structuring this book**

In this chapter we have discussed what we believe to be the importance of teacher enquiry through a process of action research for developing and innovating teaching and learning practice. We have outlined a typology exploring the different elements of action research and how they can be configured in different approaches to enquiry. This book will now go on to look at the practical issues of engaging in research into your own practice from the initial identification of a focus to the sharing of your enquiry with a wider audience.

In Chapter 2 we will exemplify the process of refining the focus of the enquiry, choosing an initial research question, checking it is sensible and manageable and then matching data collection tools to answer it. This chapter will go through the process of focusing your research question to limit impacting variables and making sure that the question is a realistic one which can be answered within the context of the teachers’ realm. This is where we make the case for multiple approaches using PMIs (Plus-Minus-Interesting points) for the main groups of research methods and then explore diagrammatically and with exemplification in real world case studies how one can overcome weaknesses of one by pairing with another, or how, if methods with corresponding weaknesses are chosen, this must be reported and acknowledged. This multi-method approach will suggest that both quantitative and qualitative methods are appropriate as well as process and outcome related data collection tools.

Chapters 3–5 will, in turn, explore collecting data from pupils, teachers and from parents and the wider community. Each chapter will examine different data collection methods which can be used appropriately for each of these groups. The advantages and disadvantages relating to the different types of evidence will be
discussed and some of the ethical issues highlighted. We will focus on data that is already routinely collected in the school and how this can be practically supplemented. Within this, we will focus on a range of examples of research questions, including attainment focused and socio-cultural (talk) and how schools have approached them, both in terms of how tools are used and how they are analysed. These will be linked back to the typology, to show how various approaches place different demands on teachers and yield different results.

Chapter 6 is about interpretation rather than analysis and returns to the issue of weighting various kinds of evidence, clarity about what does and does not constitute an answer to a research question and the iterative process of question generation, which is the heart of an action research cycle. This chapter includes a discussion of rigour and validity in the context of teacher enquiry.

Chapter 7 looks at the process of making the enquiry public and discusses forms of dissemination and the importance of opening the work to challenge so that learning can continue within and across different contexts.

Key perspectives on enquiry and action research

There is a huge literature exploring enquiry and action research, so the references that follow are intended to be a useful starting point for readers to engage with the debates and the range of views from different traditions.


References used in this chapter

about collaborative CPD?’ In Research Evidence in Education Library. London: EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.


