how relevant his ideas still are for us today. In the educational crisis that we are currently experiencing, we need more people of his stature who have a vision of education and can translate it into a coherent philosophy and a pragmatic course of action. On my office wall there is a quotation from Stenhouse that is on his memorial plaque in the grounds of the University of East Anglia:

> It is teachers who, in the end, will change the world of the school by understanding it.

I hope that in some small way this book will contribute to that aspiration.

Hopkins, D (1993)

CHAPTER 1

A Teacher's Guide to Classroom Research

This is a practical guide for teachers who wish to undertake research in their classrooms and schools for the purpose of improving practice. Classroom research, in the sense that I refer to it here, is an act undertaken by teachers, to enhance their own or a colleague's teaching, to test the assumptions of educational theory in practice, or as a means of evaluating and implementing whole school priorities. So when I write of classroom research or of the teacher as researcher, I am not envisioning scores of teachers assuming a research role and carrying out research projects to the exclusion of their teaching. My vision is of teachers who have extended their role to include critical reflection upon their craft with the aim of improving it.

Although lip service is often paid to this idea, we live in an educational system that tends to limit individual initiative by encouraging conformity and control. Teachers and pupils (and society too) deserve better than that. Undertaking research in their own and colleagues' classrooms is one way in which teachers can take increased responsibility for their actions and create a more energetic and dynamic environment in which teaching and learning can occur.

The origins of teacher research as a movement can be traced back to the Schools Council's Humanities Curriculum Project (HCP) (1967–72) with its emphasis on an experimental curriculum and the reconceptualization of curriculum development as curriculum research. HCP, in its attempt to encourage a non-partisan and critically reflective attitude to teaching on the part of teachers, had a radical and controversial influence on teaching in British schools during the 1970s.

Following HCP, the concept of teacher research was nurtured by John Elliott and Clem Adelman in the Ford Teaching Project (1972–75). The project involved 40 primary and secondary school teachers in examining their classroom practice through action research. These teachers developed hypotheses about their teaching which could be shared with other teachers and used to enhance their own teaching.

At about the same time, Lawrence Stenhouse, who directed the Humanities Curriculum Project, further popularized the concept of 'the teacher as researcher' by utilizing it as the major theme in his influential book, *An Introduction to Curriculum Research and Development* (Stenhouse 1975). Encouraged by the considerable impact that Stenhouse had on the theory and practice of curriculum and teaching, and the popularity and publicity enjoyed by the Ford Teaching Project, the teacher research movement has mushroomed. As well as burgeoning teacher research groups in the UK, Australia, the USA and Canada, there are pockets of teacher-researchers in Scandinavia, France, Chile and elsewhere. Although teacher research was not an entirely new concept in the late 1960s, it is from this period that it became an identifiable movement.

Much, however, has changed in the context of education in most Western countries since the concept of the teacher as researcher became popular. The main difference between the 1970s and the 1990s is that classroom research has increasingly to be seen within a whole school context. It is no longer sufficient for teachers to do research in their own

classrooms, without relating their enquiries to the work of their colleagues and the aims and direction of the school as a whole. We need to strive consciously for a synthesis between teacher research and school development. That is why this book is not just a primer on classroom research techniques, but also attempts to relate teacher research to whole school improvement efforts.

All books emerge out of a specific set of individual circumstances that have influenced the author, and this book is no exception. The journey that preceded this book is still continuing, and so the story remains unfinished. But two influences in particular have been crucial in developing the ideas presented here and provide a context in which to consider the book. The first is the work of Lawrence Stenhouse. In the Humanities Curriculum Project and his other work, Stenhouse was primarily concerned with the concept of emancipation. He wrote (1983: 163):

> My theme is an old-fashioned one – emancipation . . . The essence of emancipation as I conceive it is the intellectual, moral and spiritual autonomy which we recognise when we eschew paternalism and the role of authority and hold ourselves obliged to appeal to judgement.

There are three levels at which this concept of emancipation can operate – at the level of the student, the teacher and the school.

At the level of the student, emancipation refers to the ability to stand outside the teacher's authority on forms of knowledge, and to discover and own it for oneself. It was in the Humanities Curriculum Project that Stenhouse most notoriously signalled for his commitment to this theme. In that project he was principally concerned with the emancipation of pupils through a particular teaching strategy. There were three elements to this aspect of the project: the use of discussion, the use of documents as evidence to inform discussion, and the assumption by the teacher of the role of neutral chairperson. By adopting this approach,

Stenhouse was moving away from a teacher-dominated classroom to a setting where pupils, unconstrained by the authority of the teacher, could create meaning for themselves on the basis of evidence and discussion.

If HCP was in part a curriculum designed to emancipate pupils, the phrase 'teacher as researcher' was intended to do the same for teachers. Teachers are too often the servants of heads, advisers, researchers, textbooks, curriculum developers, examination boards or the Department for Education among others. By adopting a research stance, teachers are liberating themselves from the control position they so often find themselves in. Stenhouse encouraged teachers to follow the specification of a curriculum or teaching strategy, but at the same time to assess it critically. Such curriculum proposals and teaching specifications are probably intelligent but not necessarily correct, and their effectiveness should therefore be monitored by teachers in the classroom. By adopting this critical approach, by taking a research stance, the teacher is engaged not only in a meaningful professional development activity, but also engaged in a process of refining, and becoming more autonomous in, professional judgement. This applies as much to the National Curriculum as it did to the HCP.

The third level at which emancipation can operate is that of the school. Here it is a question of the school liberating itself from a bureaucratic and control-oriented educational system. The image of the 'ideal' type of emancipated school is represented by the words 'autonomous', 'creative', 'moving' or 'problem-solving'. These successful schools take the opportunity of the recent changes and use them to support developments already underway or planned for in the school. They adapt external change for internal purposes. In the most successful or emancipated schools, there is also a realization that successful change involves learning on the part of teachers. This implies that successful change strategies involve a seamless web of activities that focus on, are integrated with and enhance the daily work of

teachers. This can result in quite profound alterations to the culture of the school and the ways in which teachers, heads and governors work together towards the goal of student achievement.

The second influence on this book is more personal. During the 1970s, I trained as a teacher and taught, worked as an Outward Bound instructor and mountain guide, and read for postgraduate degrees in education. Although somewhat different activities, they were all characterized by a desire, often hesitant and naive, to create ways in which people could take more control of their own lives. Irrespective of the context – practice teaching, an 'O' level history class, counselling a 'delinquent' pupil, assisting in a youth club, on the rock face, out in the wilderness, or discussing ideas in a seminar – there were similarities in overall aim and pedagogic structure.

Later, as a teacher in a Canadian university, I taught courses in curriculum development, analysis of teaching, classroom research, and found in Stenhouse's work a theoretical framework within which I could put my ideas into action. The book emerged from that experience, more specifically from a course I taught in classroom research and some papers I wrote on the topic (Hopkins 1982, 1984a, b). Thus, the book is based on a set of ideas that have the enhancement of teacher judgement and autonomy as a specific goal, and is grounded within the practical realities of teachers and students.

This interest in classroom-based work, although always in my mind linked to school improvement, has assumed a broader perspective since coming to Cambridge. Much of my work over the past seven years or so at the Institute of Education, has been concerned with assisting teachers, schools and local education authorities (LEAs) to handle and reflect on the change process. I have learned an enormous amount from them, as I have from my involvement in the evaluation of TVEI, our DES projects on Teacher Appraisal and School Development Plans, and our current school improvement project 'Improving the

Quality of Education for All'. I have also been fortunate to have worked over a slightly longer period with the OECD's Centre for Educational Research and Innovation on a number of school improvement-related projects. This work has helped me to see the teacher's role in the wider context of the school as an organization and workplace. In particular, it has impressed on me the crucial importance of the culture of the school in sustaining teacher development.

It is this commitment to a practical philosophy of emancipation and empowerment as well as a particular set of individual circumstances that underpin the argument in this book. After this introduction, a few case studies of teacher-based research are given to provide a context for what follows. In Chapter 3, two arguments are considered for teacher-based research – the need for professionalism in teaching, and the inadequacy of the traditional research approach in helping teachers improve their classroom practice. In Chapter 4, action research, which has become the main vehicle for teacher research, is discussed and critiqued; from that discussion, six criteria for teacher-based research are suggested. Chapter 5 discusses the ways in which teacher research problems are formulated and initiated. Chapters 6 and 7 describe the principles and practice of classroom observation, and in Chapter 8 various other ways of gathering information on classroom behaviour are described. Chapter 9 outlines a method for analysing this data. These five chapters constitute the heart of the teacher research process. Chapter 10 discusses ways in which classroom research can be reported, published and linked to the curriculum, teaching and staff development. The discussion in Chapter 11 links classroom research activities to current school improvement strategies, such as school self-evaluation, development planning and teacher appraisal. In the final chapter, I stand back a little and attempt briefly to connect the discussion in previous chapters to the themes of teacher and school development.

A continuing emphasis throughout the book is the importance of establishing a professional ethic for teaching.

Implicit in this idea is the concept of teacher as researcher. The teacher-researcher image is a powerful one. It embodies a number of characteristics that reflect on the individual teacher's capacity to be in Stenhouse's phrase 'autonomous in professional judgement'. A major factor in this is the teacher's ability to think systematically and critically about what he or she is doing and to collaborate with other teachers. Central to this activity is the systematic reflection on one's classroom experience, to understand it and to create meaning out of that understanding. By becoming self-conscious, collaborative and critical about their teaching, teachers develop more power over their professional lives and are better able to create classrooms and schools that are responsive to the vision they and we have for our children's future.

FURTHER READING

The key source for any teacher-researcher is the work of Lawrence Stenhouse, in particular his *An Introduction to Curriculum Research and Development* (1975). Although he died before making his own comprehensive statement on classroom research by teachers, Jean Rudduck and I (Rudduck and Hopkins 1985) edited his published and unpublished writing to make such an argument in *Research as a Basis for Teaching*. Until the mid-1980s most of the work on teacher research was either philosophical discussion (Kemmis 1982, 1983), reports by researchers (Elliot and Adelman 1976) or teachers' own accounts of their research (Nixon 1981). Since that time, however, there has been a dramatic growth in the number of books on the topic. Pride of place must go to John Elliott's (1991) *Action Research for Educational Change*, which traces the development of the teacher research movement, describes its methodology and explores how it can be 'a form of creative resistance' to centralized policy-making. Two other more recent books that attempt in different ways to link the ethic

of teacher research to school development and educational change are Helen Simons' (1987) *Getting to Know Schools in Democracy* and our own *The Empowered School* (Hargreaves and Hopkins 1991). Although much else of relevance to the theme of 'classroom research by teachers' has been published recently, I have referred to them in the 'Further Reading' section at the end of the most appropriate chapter.

CHAPTER 3

Why Classroom Research by Teachers?

In asking the question, 'Why classroom research by teachers?', one is raising a whole series of issues around the topics of professionalism, classroom practice, the social control of teachers and the usefulness of educational research. Each of these issues provides a rationale for teacher research. For example, classroom research by teachers can be justified by references to professionalism because systematic self-study is a hallmark of those occupations that enjoy the label 'professional'. Unfortunately, the teacher's claim to professionalism sometimes falters at this definition. In this chapter, however, I will focus on two other themes that justify and, indeed, make imperative a concept of classroom research by teachers. The first is the link between classroom research by teachers and the establishing and refining of professional judgement. The second is the inappropriateness of the traditional research paradigm for helping teachers improve their teaching.

'AUTONOMOUS IN PROFESSIONAL JUDGEMENT'

Lawrence Stenhouse (1984: 69) described the ideal role of the teacher like this:

> Good teachers are necessarily autonomous in professional judgement. They do not need to be told what to do. They are not professionally the dependents of researchers or superintendents, of innovators or supervisors. This does not mean that they do not welcome access to ideas created by other people at other places or in other times. Nor do they reject advice, consultancy or support. But they do know that ideas and people are not of much real use until they are digested to the point where they are subject to the teacher's own judgement In short, it is the task of all educationalists outside the classroom to serve the teachers; for only teachers are in the position to create good teaching.

This is a very different image from the contemporary approach to schooling that is based on the assumption that instructions issued from the top – from the minister, the chief education officer or head – are put into practice at the appropriate level lower down the organization. This approach to education tends to equate schools to factories which operate on a rational input–output basis, with pupils as raw material, teachers as mechanics, the curriculum as the productive process and the school leaders as factory managers.

This image of schooling stands in direct contrast to the aspirations of the teacher research movement. John Elliott (in Nixon 1981: 1) has observed that 'the teacher as researcher movement emanated from the work and ideas of Lawrence Stenhouse'. Crucial to an understanding of Stenhouse's intellectual position is, as we saw in Chapter 1, the notion of emancipation (see Stenhouse 1983). In this context, emancipation refers to the process involved in

liberating teachers from a system of education that denies individual dignity by returning to them some degree of self-worth through the exercise of professional judgement. In terms of curriculum and teaching, the path to emancipation involves reconceptualizing curriculum development as curriculum research, and the linking of research to the art of teaching (Rudduck and Hopkins 1985). When viewed through this particular lens, centrally imposed curricula are in danger of becoming prescriptive blueprints that tend to inhibit autonomy in teaching and learning. On the other hand, the process model of curriculum, as described by Stenhouse (1975), is liberating or emancipatory because it encourages independence of thought and argument on the part of the pupil, and experimentation and the use of judgement on the part of the teacher. When teachers adopt this experimental approach to their teaching, they are taking on an educational idea, cast in the form of a curriculum proposal, and testing it out within their classrooms. As Stenhouse (1975: 142) said:

> The crucial point is that the proposal is not to be regarded as an unqualified recommendation but rather as a provisional specification claiming no more than to be worth putting to the test of practice. Such proposals claim to be intelligent rather than correct.

The major consequence of doing this is that teachers take more control of their professional lives. Not content to be told what to do or being uncertain about what it is one is doing, teachers who engage in their own research are developing their professional judgement and are moving towards emancipation and autonomy. Although this approach encourages new teaching strategies and implies a different way of viewing knowledge, it is not inimical to the idea of a National Curriculum.

Successful implementation of any centralized innovation requires adaptation by teachers at the school level. It is not an either/or situation or a straight choice between 'top-down' or 'bottom-up' – it is a combination of both. As

Denis Lawton (1989: 85) argues in his book *Education, Culture and the National Curriculum*:

> [we need] more curriculum development which is at least partly school-based. This is not to suggest that the centre–periphery or 'top-down' models of curriculum development are completely outmoded: it is a question of balance. It would be unreasonable to expect every school to develop its own curriculum from first principles, but it would be equally foolish to attempt to impose a detailed, uniform curriculum on every school, leaving no room for school-based development geared to specific local needs.

This balance is maintained through the professionalism of teachers. As Lawton (1989: 89) further comments:

> The increasing desire of teachers to be treated as professionals rather than as state functionaries, has encouraged a tendency to look for ways in which teachers could solve their own professional problems at a local level rather than react to more remote initiatives. Hence the emphasis on the school as the obvious location for curriculum renewal, the in-service education of teachers, the evaluation of teaching and learning, and even educational research.

In recent years, with the increase in centralized innovation and change, many teachers have found themselves involved in schemes for school self-review, curriculum evaluation, development planning, teacher appraisal and so on. All of these activities, as is argued in Chapter 11, build on classroom research techniques. When viewed in this way, they can provide further powerful opportunities for contributing towards the development of a teacher's professional judgement and the quality of education in their schools.

PROBLEMS IN TRADITIONAL APPROACHES

Perhaps the most unfortunate aspect of traditional educational research is that it is extremely difficult to apply its findings to classroom practice. The final case study in Chapter 2 is a good illustration of this. In a quandary about which teaching strategy to use, the fictionalized teacher went to the research literature for guidance. His subsequent experience was as frustrating as it was predictable, because the literature contains few unequivocal signposts for action. This dilemma is widespread: teachers quite rightly (in most cases) regard educational research as something irrelevant to their lives and see little interaction between the world of the educational researcher and the world of the teacher.

Arthur Bolster (1983: 295) asks the question, 'Why has research on teaching had so little influence on practice?', and his response to the question is worth quoting:

> The major reason, in my opinion, is that most such research, especially that emanating from top-ranked schools of education, construes teaching from a theoretical perspective that is incompatible with the perspective teachers must employ in thinking about their work. In other words, researchers and school teachers adopt radically different sets of assumptions about how to conceptualize the teaching process. As a result, the conclusions of much formal research on teaching appear irrelevant to classroom teachers – not necessarily wrong, just not very sensible or useful. If researchers are to generate knowledge that is likely to affect classroom practice, they must construe their inquiries in ways that are much more compatible with teachers' perspectives.

Most researchers when they enter classrooms bring with them perspectives derived from academic disciplines. Their view of how knowledge evolves and how it is determined

are firmly established by their formal training. The world view that guides researchers' actions is consequently at odds with that of teachers. The teacher derives his or her knowledge of teaching from continual participation in situational decision making and the classroom culture in which they and their pupils live out their daily lives. So one reason why traditional educational research is of little use to teachers is because of the differing conceptions of teaching held by teachers and researchers. But there are other problems.

Research in education is usually carried out within the psycho-statistical research paradigm. This implies tightly controlled experimentation and the testing of hypotheses by assessing the effectiveness of a treatment across randomly selected groups through the use of statistical analysis. This approach is based on the agricultural research designs of R. A. Fisher (1935) in the 1930s. At that time, educationalists, desiring to link research to action, began to utilize the very successful 'agricultural–botany' designs of Fisher in educational settings. This has continued (and increased) down to the present day as can be seen by the myriad of postgraduate theses that use this research design. The basic idea underlying Fisher's designs is that experiments are conducted on samples, usually divided into a control and an experimental group, with the results generalized to the target population. The point is that samples are randomly drawn and are consequently representative of that target population.

Stenhouse (1979) describes Fisher's approach like this:

> The strength of Fisher's paradigm is the recognition of random sampling, in which a sample is drawn such that each member of the target population has an equal chance of being included in the sample because it is a device of chance. . .
>
> In Fisher's agricultural setting, the hypotheses were not derived from scientific theory. . . They were hypotheses regarding the relative effectiveness of alternative procedures, and the criteria of effectiveness was gross crop yield.
>
> The result of an experiment of this kind is an estimate of the probability that – other things being equal – a particular seed strain or fertilizer or amount of watering will result in a higher gross yield than an alternative against which it has been tested. . . It is in applying experimental methods to teaching and curriculum evaluation in the schools that researchers have used the Fisherian model. The assumption is that one teaching procedure or curriculum can be tested against alternatives as a seed strain or fertilizer can in agriculture, i.e. procedures can be tested against yield without a real theoretical framework.

This approach to educational research is problematic, particularly if its results are to be applied to classrooms. First, it is extraordinarily difficult to draw random samples in educational settings (e.g. a random sample of schools, pupils and teachers would have to be drawn separately). Second, there are a myriad of contextual variables operating on schools and classrooms (e.g. community culture, teacher personality, school ethos, socio-economic background, etc.) that would affect the results. Third, it is difficult to establish criteria for effective classroom or school performance. Even if one could resolve these difficulties, there are, as Stenhouse (1979) points out, two deeper problems that relate to the nature of educational activity.

First, the 'agricultural–botany' paradigm is based on measures of gross yield (i.e. how much produce can be gathered in total from a section of land). That is an inappropriate measure for education. As teachers, we are concerned with the individual progress of students rather than with aggregated scores from the class or the school. Our emphasis is on varying teaching methods to suit individual pupils in order to help them achieve to the limit

of their potential. Stenhouse (1979: 79) puts the paradox like this:

> The teacher is like a gardener who treats different plants differently, and not like a large scale farmer who administers standardised treatments to as near as possible standardised plants.

The second deeper problem relates to meaningful action. The teacher–pupil or pupil–pupil interactions that result in effective learning are not so much the consequence of a standardized teaching method but the result of both teachers and pupils engaging in meaningful action. And meaningful action cannot be standardized by control or sample. This is a similar argument to the one commonly used against those who overrate the utility of behavioural objectives. Behavioural objectives provide an excellent means for the teaching of skills or evaluating rote learning, but they tend to be counter-productive with more complex and sophisticated content areas. In the instance of rote learning, one can accept the parallel with standardized treatments, but not so easily with poetry appreciation. Here pupil response is the result of individual negotiation with the subject, mediated through and by the teacher – namely, a form of meaningful action. In this case, education as induction into knowledge is, as Stenhouse (1975: 82) memorably points out, 'successful to the extent that it makes the behavioural outcomes of pupils unpredictable' and, therefore, not generalizable. The implications of this line of thinking for teacher-researchers is to encourage them to look outside the psycho-statistical paradigm for their research procedures.

To summarize, I have made two points in arguing that the traditional approach to educational research is not of much use to teachers. The first point is that teachers and researchers do not conceptualize teaching in the same way. They live in different intellectual worlds and so their meanings rarely connect. Secondly, the usual form of educational research, the psycho-statistical or agricultural–botany paradigm, has severe limitations as a method of construing and making sense of classroom reality. For these two reasons, teachers and those concerned with understanding classroom life have increasingly adopted different approaches to classroom research.

Arthur Bolster (1983) advocates an ethnographic approach as the research methodology most likely to generate knowledge that is intellectually rigorous and helpful for teacher development. Stenhouse goes further than this and suggests not only a research approach that is grounded in the reality of classroom culture, but one that is under the control of teachers. I am calling this form of research in which teachers do research in their own classrooms for the purpose of improving practice, teacher research. The phrase, teacher research, has the advantage of being simple and identifies the major actor and the process involved. It is in this sense and with this aspiration that the terms 'classroom research by teachers', 'teacher-based research' and the 'teacher-researcher' are used in this book. It is the description of such an approach to classroom research that provides the substance of the following chapter.

FURTHER READING

The notion of professionalism used in this chapter comprises a major theme in two of Lawrence Stenhouse's books: *An Introduction to Curriculum Research and Development* (1975) and *Authority, Education and Emancipation* (1983). An important discussion of the historical background to the nature of teacher professionalism is included in Dan Lortie's (1975) *School Teacher*. An excellent wide-ranging discussion of the practical implications of professionalism is found in Donald Schon's (1983) *The Reflective Practitioner*. A more contemporary discussion of reflective professionalism in teaching is found in the contributions to *Quality in Teaching*, edited by Wilf Carr (1989). For a more detailed exposition of Stenhouse's

critique of the traditional approach to educational research, see *Research as a Basis for Teaching* (Rudduck and Hopkins 1985). An entertaining and comprehensive review of the arguments against traditional educational research as well as an alternative approach is found in *Beyond the Numbers Game* (Hamilton *et al.* 1977). These arguments are also well rehearsed in Winters' (1989) *Learning from Experience*, Carr and Kemmis' (1986) *Becoming Critical* and Elliott's (1991) *Action Research for Educational Change*. A broader perspective on this 'alternative approach' to educational research is found in texts such as Lincoln and Guba's (1985) *Naturalistic Inquiry* and Sara Delamont's (1992) witty and perceptive *Fieldwork in Educational Settings*.

CHAPTER 4

Action Research and Classroom Research by Teachers

In the previous chapter, I outlined a series of problems associated with the traditional approach to educational research that limits its usefulness for teachers who wish to improve their practice. There are, however, at least two other research traditions to which teachers can turn. One tradition is associated with the work of sociologists and anthropologists. Social anthropological, ethnographic, phenomenological, naturalistic and illuminative research are examples of these research approaches. These are long words that describe essentially the same approach – one that attempts to understand a social situation and to derive hypotheses from that effort of appreciation. The procedures that such social scientists have developed for analysing fieldwork data are used in this book as a guide for making sense of classroom data. They are described in some detail in Chapter 9.

The other research tradition that stands in contrast to the psycho-statistical paradigm and has a strong link with