the educational process to improve their own educational practices, their own understandings, and the situations and institutions in which they work. On this view, the success of educational research conducted by outsiders is to be measured not in terms of what they expropriate from the experience and work of teachers for the research literature, but in terms of their contribution to the improvement of education in the real and concrete situations in which those teachers work.

The more significant implication of this view of critical educational science, however, concerns teachers themselves. Clearly, a critical educational science requires that teachers become researchers into their own practices, understandings and situations. While there is a role for ‘critical friends’ in helping teachers and others involved in education to conduct critical research, the primary work of educational research must be participatory research by those whose practices constitute education. To show how those whose work constitutes education itself can also develop forms of work which can constitute a reformed practice of educational research, it will be useful to introduce the idea of educational action research.

3 The Definition and Character of Action Research

Action research is simply a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices, and the situations in which the practices are carried out. In education, action research has been employed in school-based curriculum development, professional development, school improvement programmes, and systems planning and policy development. Although these activities are frequently carried out using approaches, methods and techniques unrelated to those of action research, participants in these development processes are increasingly choosing action research as a way of participating in decision-making about development.

In terms of method, a self-reflective spiral of cycles of planning, acting, observing and reflecting is central to the action research approach. Kurt Lewin, who coined the phrase ‘action research’ described the process in terms of planning, fact-finding and execution:

Planning usually starts with something like a general idea. For one reason or another it seems desirable to reach a certain objective. Exactly how to circumscribe this objective and how to reach it is frequently not too clear. The first step, then, is to examine the idea
carefully in the light of the means available. Frequently more fact-finding about the situation is required. If this first period of planning is successful, two items emerge: an ‘overall plan’ of how to reach the objective and a decision in regard to the first step of action. Usually this planning has also somewhat modified the original idea. The next period is devoted to executing the first step of the overall plan. In highly developed fields of social management or the execution of a war, this second step is followed by certain fact-findings. For example, in the bombing of Germany a certain factory may have been chosen as the first target after careful consideration of various priorities and of the best means and ways of dealing with this target. The attack is pressed home and immediately a reconnaissance plane follows with the one objective of determining as accurately and objectively as possible the new situation. This reconnaissance or fact-finding has four functions: it should evaluate the action by showing whether what has been achieved is above or below expectation; it should serve as a basis for correctly planning the next step; it should serve as a basis for modifying the ‘overall plan’; and finally, it gives the planners a chance to learn; that is, to gather new general insights, for instance, regarding the strength and weakness of certain weapons or techniques of action. The next step again is composed of a circle of planning, executing, and reconnaissance or fact-finding for the purpose of evaluating the results of the second step, for preparing the rational basis for planning the third step, and for perhaps modifying again the overall plan.17

Lewin documented the effects of group decision in facilitating and sustaining changes in social conduct, and emphasized the value of involving participants in every phase of the action research process. He also saw action research as based on principles which could lead ‘gradually to independence, equality and cooperation’ and effectively alter policies of ‘permanent exploitation’ which he saw as ‘likely to endanger every aspect of democracy’.18 Lewin saw action research as being essential for the progress of ‘basic social research’. In order to ‘develop deeper insights into the laws which govern social life’, mathematical and conceptual problems of theoretical analysis would be required, as would ‘descriptive fact-finding in regard to small and large social bodies’. ‘Above all’, he argued, basic social research ‘would have to include laboratory and field experiments in social change’.19

Lewin thus presaged three important characteristics of modern action research: its participatory character, its democratic impulse, and its
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 simultanous contribution to social science and social change. In each of these three areas, however, action researchers of the 1980s would take exception to Lewin’s formulation of the significance of action research. First, they would regard group decision-making as important as a matter of principle, rather than as a matter of technique; that is, not merely as an effective means of facilitating and maintaining social change, but also as essential for authentic commitment to social action. Second, contemporary exponents of action research would object to the notion that participants should, or could, be ‘led’ to more democratic forms of life through action research. Action research should not be seen as a recipe or technique for bringing about democracy, but rather as an embodiment of democratic principles in research, allowing participants to influence, if not determine, the conditions of their own lives and work, and collaboratively to develop critiques of social conditions which sustain dependence, inequality or exploitation. Third, contemporary action researchers would object to the language in which Lewin describes the theoretical aims and methods of social science (‘developing deeper insights into the laws that govern social life’ through mathematical and conceptual analysis and laboratory and field experiments). This language would now be described as positivistic and incompatible with the aims and methods of any adequate social or educational science.

Lewin developed the idea of action research in investigating social practices like production in factories, discrimination against minority groups, or habits of food buying in the middle 1940s. According to Lewin, action research consists of analysis, fact-finding and conceptualization about problems; planning of action programmes, executing them, and then more fact-finding or evaluation; and then a repetition of this whole circle of activities; indeed, a spiral of such circles. Through the spirals of these activities, action research creates conditions under which learning communities may be established; that is, communities of enquirers committed to learning about and understanding the problems and effects of their own strategic action, and the improvement of this strategic action in practice.

Participants in a National Invitational Seminar on Action Research held at Deakin University, Geelong, Victoria in May 1981, agreed on a definition of educational action research which is presented here in a slightly edited form:

Educational action research is a term used to describe a family of activities in curriculum development, professional develop-ment,
school improvement programs, and systems planning and policy development. These activities have in common the identification of strategies of planned action which are implemented, and then systematically submitted to observation, reflection and change. Participants in the action being considered are integrally involved in all of these activities.²¹

In this definition, the Lewinian notion of the spiral is preserved in the notions of planning, acting, observing and reflecting. Participation, too, long recognized by Lewin and his colleagues as an essential aspect of the action research process, remains an essential feature. But the definition also gives central importance to the notion of strategic action. Action research, it is claimed, is the research method of preference whenever a social practice is the focus of research activity. It is to be preferred to positivistic research which treats social practices as functions of determinate systems, and to purely interpretive approaches which treat practices as cultural-historical products. In fact, social practices are essentially risky enterprises requiring judgments about their prudence, and as such they cannot be justified solely by reference to theoretical principles nor justified purely retrospectively by reference to their cultural and historical location.

There are two essential aims of all action research: to improve and to involve. Action research aims at improvement in three areas: firstly, the improvement of a practice; secondly, the improvement of the understanding of the practice by its practitioners; and thirdly, the improvement of the situation in which the practice takes place. The aim of involvement stands shoulder to shoulder with the aim of improvement. Those involved in the practice being considered are to be involved in the action research process in all its phases of planning, acting, observing and reflecting. As an action research project develops, it is expected that a widening circle of those affected by the practice will become involved in the research process.

What are the minimal requirements for action research? It can be argued that three conditions are individually necessary and jointly sufficient for action research to be said to exist: firstly, a project takes as its subject-matter a social practice, regarding it as a form of strategic action susceptible of improvement; secondly, the project proceeds through a spiral of cycles of planning, acting, observing and reflecting, with each of these activities being systematically and self-critically implemented and interrelated; thirdly, the project involves those responsible for the practice in each of the moments of the activity,
widening participation in the project gradually to include others affected by the practice, and maintaining collaborative control of the process. Some of the work that now passes for action research in education does not meet these criteria. Some will develop towards meeting all of the requirements; some will be ‘arrested’ action research and falter before completing its development. Still other work will fail to meet these requirements and cannot seriously lay claim to the title ‘action research’ at all.

Lewin’s early action research work was concerned with changes in attitudes and conduct in a number of areas of social concern and his ideas were carried quickly into education.22 However, after a decade of growth, educational action research went into decline. Although some educational action research work continued in the United States, in 1970 Nevitt Sanford23 argued that its decline was attributable to a growing separation of research and action, of theory from practice. As academic researchers in the social sciences began to enjoy unprecedented support from public funding bodies, they began to distinguish the work of the theorist-researcher from that of the ‘engineer’ responsible for putting theoretical principles into practice. The rising tide of post-Sputnik curriculum development, based on a research-development-diffusion (RD and D) model of the relationship between research and practice, legitimated and sustained this separation. Largescale curriculum development and evaluation activities, based on the cooperation of practitioners in development and evaluation tasks devised by theoreticians, diverted legitimacy and energy from the essentially small-scale, locally organized, self-reflective approach of action research. By the mid-1960s, the technical research development and diffusion (RD and D) model had established itself as the preeminent model for change.

The initial resurgence of contemporary interest in educational action research arose from the work of the 1973–76 Ford Teaching Project in Britain, under the direction of John Elliott and Clem Adelman.24 This project involved teachers in collaborative action research into their own practices, and its central notion of the ‘self-monitoring teacher’ was based on Lawrence Stenhouse’s25 views of the teacher as a researcher and as an ‘extended professional’. There are a number of reasons why this project led to a resurgence of interest. First, there was the demand from within an increasingly professionalized teacher force for a research role, based on the notion of the extended professional investigating his or her own practice. Second, there was the perceived irrelevance to the concerns of these practitioners of much