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ACTION
RESEARCH FOR
CURRICULUM
CHANGE AND
PROFESSIONAL
DEVELOPMENT

Michael Garbutcheon Singh

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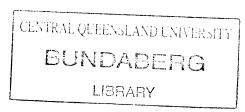
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# Action research for curriculum change and professional development

(MO203)

Michael Garbutcheon Singh



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## Introduction

What should curriculum research look like and how should it be enacted if it is to be educational? A key feature sustaining the interest of curriculum leaders in action research has been its demonstrated potential for improving the justice, reasonableness and humanity of the curriculum. Curriculum leaders have found action research in education to be relevant because they participate in the definition and exploration of possibilities and problems for curriculum change as well as using it for their own professional self-development. The minimal requirements for valid and valuable educational research are discernible in action research; curriculum policy and practice strategically acted upon; criticism during the cyclic spiral of planning, acting, observing and reflecting; and increasing involvement, participation and collaboration with those affected by the research itself. However, the difference between action research and alternative methodologies lies in its theory and practice. Insight into the nature of action research, and its value in learning about curriculum by changing it, is achieved by examining its historical development along with its key attributes.

During the 1980s action research became increasingly accessible to teachers, enabling the development of self-generative skills, as well as challenging teachers to plan and pursue worthwhile curriculum changes, and the extension of their professional understanding and decent practices. In this paper, it is argued that the extension of teacher professionality and curriculum change may be satisfactorily pursued by action research. Here "professionality" refers to knowledge, skills and procedures employed by teachers in their curriculum work (Hoyle 1974). This paper gives an overview of action research, beginning with an explanation of this concept. Reference is made to the history and changes in the idea of action research from 1944 onwards. Key features of action research are outlined, along with its practical and theoretical significance as a method for engaging in curriculum change and professional self-development. Some of its strengths and limitations are explained. The criteria for critical education research are summarised in terms of a particular approach to action research. This overview of the nature of action research provides a basis for curriculum leaders to change the curriculum by planning, enacting, monitoring and

reflecting upon the effects of such work on their own professional understandings and work situation.

# **Developments in action research**

Action research provides curriculum leaders with the opportunity to learn something substantive about curriculum and change, as well as helping them recognise themselves as a means of producing curriculum knowledge and a source of curriculum power (Fals Borda 1990, pp. 88–95). Given that natural science is a cultural product with specific human interests and carries certain biases and values, action research represents an alternative way of doing science, of producing information and knowledge about the curriculum and its change. In this, "the information age", the forms and relationships involved in knowledge production are, perhaps, more important than the forms of material production. Action research offers a possible way of eliminating, or at least challenging, imperialistic representations of curriculum knowledge. Thus, action research is a creative or productive process for making really useful curricular knowledge. Ideally, teachers (and students) participate in the process of action research from the beginning, that is, from the moment a curriculum leader decides that there will be a teacher research project. The teacher is involved at every stage in the investigative process, from problem posing, through to the writing of the report, to the returning of the knowledge that has been produced to the people from whom it has been collected.

Educational action research is research into curriculum issues by curriculum leaders. Through action research, teachers learn about and extend their own professionality. Curriculum leaders can share their knowledge and skills with credible critical friends, including colleagues in a range of educational institutions. Through action research, curriculum leaders develop practical skills and clearer understandings of curriculum and change processes. In action research, strategic action combines with critical social science (Carr & Kemmis n.d.; Fay 1987). Curriculum leaders pursue action research to achieve improvements in their curriculum practices and knowledge. Inherent in action research is a constructive and rational critique which guides improvement in both practice and theory. Henry and Kemmis (1985, pp. 1–4) explain action research in the following terms:

- Action research is a form of self-reflective enquiry undertaken by
  participants in social situations in order to improve the rationality and
  justice of their own social or educational practices, as well as their
  understanding of these practices and the situations in which these
  practices are carried out.
- These participants can be teachers, students or principals and the process is most empowering when undertaken collaboratively, though it can be undertaken by individuals and sometimes in cooperation with "outsiders".
- In education, action research has been employed in (institution-based) curriculum development, improvement programs, systems planning, and policy development (for example, in relation to policy about classroom rules, [institutional] policies about assessment, regional project team policies about their consultancy roles, and State policies about the conduct of [institutional] improvement programs).

Essential to the earlier notions of action research are the iterative and interdependent moments of planning, acting, observing and reflecting (Lewin 1946, pp. 34–36; Sanford 1970, pp. 3–23). Through critical self-reflection—an appraisal of one's own assumptions, beliefs, concepts, habits and values—a teacher's prevailing educational theory is made evident and open to critical analysis. A new practical theory emerges to free the teacher—researcher from ignorance, unwarranted compulsions, self-deceptiveness and unnecessary sociohistorical dictates. Action research is a cyclic process incorporating:

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. (Brown et al., cited in Grundy & Kemmis 1982, p. 84)

# **Historical origins**

The historical origins of action research date back, at least, to the development of social psychology and social action programs which tentatively explored its applications. During the 1940s, it was quickly assimilated into educational research and development wherein it withered in the 1950s. Interest in educational action research was rekindled in Britain

in the 1970s. Through growth in institutionally-based curriculum development and evaluation, and teacher enskilling programs in Australia during that decade, action research evolved here as a means of extending teachers' professionality.

Hodgkinson (1957) cited Dewey as stating that curriculum practice provides the subject matter for inquiry and the site for the testing of the conclusions of teacher–researchers. Much of the knowledge produced by teacher researchers was of practical relevance because of its consistency with classroom realities. Unfortunately, teachers' contributions to educational research have not always been fully capitalised upon (Lytle & Cochran-Smith 1990). Chall (1975, pp. 170–174) notes that in the 1920s and 1930s many educational researchers were teachers. In subsequent decades, there arose a division of labour: researchers produced, and teachers were expected to consume, adopt and implement their findings.

Buckingham in 1926 and Childs in 1931 (cited in Hodgkinson 1957) contributed to the exploration and tentative details for educational action research. Collier (cited in Kemmis 1982, p. 14), a Commissioner of Indian Affairs (Native Americans), advocated an action-oriented research process:

We have learned that the action-evoked, action-serving, integrative and layman-participating way of research is incomparably more productive of social results than the specialised and isolated way, and we also think we have proved that it makes discoveries more central, more universal, more functional and more *true* for the nascent social sciences.

The term "action research" was coined in the mid-1940s by influential social psychologist Kurt Lewin, although it may have been invented years before by a German physician, poet and philosopher, J.L. Moreno (McTaggart 1991, p. 45). Nevertheless, Lewin applied and refined this method in social action projects conducted by the Research Centre for Group Dynamics at the Massachusetts Institute of Technology. He challenged the sacrosanct belief that social scientists are disinterested students of humanity, and worked to ensure the involvement of the people affected by post-war social changes in these research projects. This participatory mode of research enabled people to make decisions about the nature of these action programs, and subsequently to evaluate them (Lewin 1946, pp. 34–36; Lewin 1952, pp. 459–473). At Columbia University Lewin helped to introduce action research into education. Australia's primary

facilitator of educational action research, Stephen Kemmis (1982, p. 15), regards the anti-fascist 1939–1945 war as a crucial influence on its emergence as a countervailing initiative. Social psychologists developed participatory research processes to counteract the suffering wrought by totalitarianism, racism and oppression. It was the social vision, the political consciousness and sense of connectedness to the democratic impulse that played a key role in developing this social approach to the production of knowledge.

Corey (1949, pp. 509–514) acknowledged the importance of integrating theory, practice and research. He widely advocated educational action research in the late 1940s. Unfortunately, it never really became widely influential in the curriculum field. By the time federal funding institutions were established in the USA in the 1950s, action research had been condemned to the margins of social science, with the separation between research and teaching being firmly institutionalised (Sanford 1970).

# **Changes**

During the 1950s, educational action research was retrogressively reinterpreted in terms of the mould of the dominant, positivistic research paradigm which emphasises experimentation, statistical analysis, predictability, control, and the treatment of people as research "objects". As a consequence, it lost its appeal to teachers. The interactive and iterative phases of the action research model were mutilated, fragmented, dispersed and blurred. The disconnected specialities of researchers working within a positivistic framework squashed attempts by action researchers to develop efficacious, multidisciplinary approaches to understanding and improving curriculum theory and practice.

## **Demise**

Kemmis (1982, p. 18) identified four inter-related factors in the demise of action research:

- 1. Positivistic researchers aligned themselves with policy-makerscum-patrons against teachers and curriculum practice.
- 2. Promised improvements in curriculum practices were not fully realised, bringing the methodology into question.

- 3. The provision of alternative strategies for improving curriculum practices aided its displacement.
- 4. The strength of action research was whittled away by negative conceptualisation.

The reinterpretation of action research and the preoccupation with policy issues and problems derived from positivistic research appeared even in the work of advocates of this method. For instance, Chein, Cook and Harding (1948, pp. 43–50) partially betrayed action research, by describing its phases as four different varieties of the method; they failed to establish these as merely differences in emphasis in the research cycle. Corey (1949, pp. 509–514) also provided a negative image of action research. In advancing the action research alternative he pandered to positivistic research interests. This fragmentation among the advocates of educational action research contributed to its demise.

While Taba and Noel (1957, pp. 12–27) provided practical advice for teacher–researchers, their step sequences and lack of reflective analysis further undermined the foundations of action research. The patronising and alienating tone of their paper suggests that action research was accepted in the late 1950s as a weak form of inquiry; something which suited the poorly skilled teachers of the time who had limited preservice or continuing education opportunities. Teachers were supposedly unable to see "all the dimensions of their problems", unable to "state their concerns and the conditions that surround them fully enough", lacking "motivation sufficient for long drawn out research processes" and incompetent to deal with "complex problems [which] may require complicated research techniques". No real consideration was given to the education teachers might need to overcome these alleged inadequacies.

Hodgkinson's (1957, pp. 137–153) case against action research condemned its methodology and criticised its theory. In no small way this represented another attack on teachers, who were seen as unthinking, passive acceptors of action research, as lacking familiarity with basic research techniques, and as having inadequate qualifications to conduct research. Time, money and leadership were also seen as inadequate to support teacher–researchers. Hodgkinson's assessment of action research was that it was sloppy research for busy teachers with inadequate skills and research training. This perspective reflects a deeper negative attitude towards teachers and their professionality, more than any real criticism of action research. Seemingly,

teachers were to be denied greater participation in the research process and the generation of knowledge by being prohibited from accessing relevant research skills and theoretical knowledge. McTaggart (1991, p. 44) argues that the success of action research in providing popular techniques for curriculum change undermined its, as yet unrealised, potential:

It became a tool, a technical device for solving certain kinds of problems. It was often reduced in meaning to the simplistic icons used to characterise it. It became individualistic, and was cut adrift from the theory which justified it methodologically, and the views of education which informed it substantially.

#### Kemmis (1991, p. 60) makes a similar observation:

I find contradictions in the views of those action research advocates who argue for the professional development of teachers by focusing on the development of practitioners' own theories and practices without sufficient attention to the political struggles necessary to change the deteriorating conditions under which teachers are obliged to work; those who seem unable to concede that action research could be anything other than a struggle to overcome contradictions in one's own life, as if the connection of educational researchers (action researchers among them) to other people and movements around them were not vital for mutual development; those who seem committed to developing action research as a technology for professional development which privileges teachers' perspectives on education, as if teachers' perspectives could not be further informed and developed by being put in touch with the perspectives of others whose work also constitutes education (as well as others whose social theories can also educate us); and those who see action research as a "new" form of organisational development for corporate capitalism, as if action research had not sprung from intellectual sources critical of the social forms and consequences of corporate capitalism.

## Resurgence

During the 1970s, Australian teacher–researchers began to study their own curriculum practices. Reasons for this resurgence of interest in action research are suggested in a discussion of its strengths, given below, but its recent resurrection in education parallels its rise in the 1940s. The rise of participatory, social democratic ideals has focused attention on institutionally based curriculum development and interpretation, and critical

approaches to research, rather than positivistic methods. There was a growing rejection of the dominance of reductionism in curriculum research. These developments created the possibility for the concerns of teachers to be taken seriously by policy makers. The rediscovery and further development of action research in the 1980s restored it as a process for teachers' professional development as well as serving the sociopolitical function of enabling teachers to improve their curriculum practices and work situations (Bowen, Green & Pols 1975, pp. 35–41; Cooper & Ebbutt 1974, pp. 65–71; Elliot & Adelman 1973, pp. 8–20).

Based on his research, Ingvarson (1982, pp. 86–99) argues for strengthening systems for extending teachers' professionality. For instance, teacher education institutions were identified as having an important role to play in sponsoring teachers' professional development by supporting their desires to plan, participate in and determine their own research programs. Collaboration was also found to be of significant value in giving theoretical and practical help to solve curriculum problems of mutual concern. These teachers:

... appear to be saying that what they want most are those ... approaches which open up the profession to greater opportunities for learning from itself, approaches which enable concrete experience to be shared and which give recognition to the profession's own expertise. (Ingvarson 1982, pp. 93, 95)

Significantly, a key reason given by teachers for changing their curriculum practices was based on their own reflective deliberation about their own problems. This suggests that action research might be able to support some teachers in their professional development. The stock of curriculum knowledge and pedagogical skills among teachers is the most important educational resource the national educational system possesses (Ingvarson 1982, p. 96).

Harlen (1977, p. 22) illustrates a range of alternatives for teacher involvement in curriculum research and development (Figure 1). In sector A, teachers are denied any participation in conducting research and development work. Teacher participation in sector B is confined to a developmental rather than a research role, while the type of involvement suggested by sector D is a rarity. Action research typifies the strong curriculum research and development roles teachers can have in sector C. The work of teacher–researchers is especially important when they address

socially, culturally and economically significant curriculum problems and possibilities. There are few doubts that teachers are capable of handling the strong curriculum research and development work associated with curriculum knowledge production and practical curriculum change. However, the extension of teacher professionality is far from being a simple, technical process, and due consideration must be given to numerous contextual factors and circumstances. Action researchers must engage in a reconnaissance of both the local and broader sociopolitical contexts in order to define the potential for change.

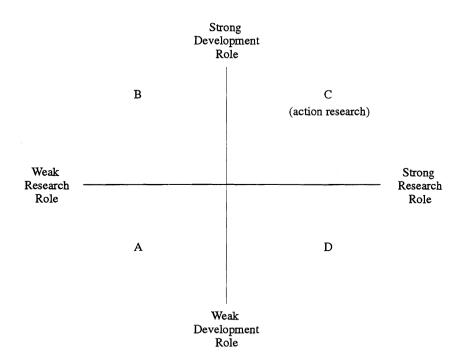


Figure 1: Alternatives for teacher involvement in curriculum research and development

The first uncertain and unsteady steps of action research during the 1940s in forays against the hegemony of positivistic science foretold its youthful demise in the 1950s. Spurred on by teachers' desires to extend their professionality, a mature and reinvigorated action research approach emerged in the 1970s. The purpose of the next section is to clarify and examine the educational significance of action research.

# **Educational significance**

Action researchers are critical of positivistic approaches to initiating curriculum change, approaches that rely on the dissemination of research findings, rather than the participation of teachers in the research work (Shumsky 1956). Action researchers regard research as integral to their teaching. Teachers' ethical responsibility for their students may usefully find legitimate expression in quality research to extend their professionality. Hodgkinson (1957, pp. 137-153) cited the instruction of students in problem-solving skills as a stimulus to teachers cooperatively employing research-based learning strategies to address curriculum possibilities and problems. Rapoport (1970, pp. 499-513) argued that research should be significant and address the concerns of teachers as well as contribute to the theoretical and cumulative advancement of education. An action research approach to professional development enables teachers to use critical social science as "the most reliable guide to effective action" and to ensure that their work is of "maximal social utility" (in terms of curriculum policy and practice) as well as being of "theoretical significance" (Chein, Cook & Harding 1948, pp. 43–50).

Action research furthers teacher professionality as a result of negotiation and collaboration with a community of critical colleagues. Local curriculum development, improvements in teaching and learning processes, and the creation of critical and helpful groups of committed educators may be facilitated by this type of educational research. These conditions foster and endorse self-reflection as plans are strategically acted upon and subjected to critique. Through cooperative study, the ideas and suggestions of this community can improve the teachers' curriculum practices and understandings of these practices. Here, it should be noted that action research aims to be scientific in so far as it applies to rational intelligence.

However, action researchers emphasise that the initial plan for an action research project is not inviolable. The focus of the project and the issues to be investigated, as well as the methods to be used, may be changed as the project progresses, as interim results are analysed and new issues and methods are suggested by the changing context (Corey 1949).

It is through careful self-reflection and openness to constructive criticisms from colleagues that action researchers are sensitive to changes in their work situation. In other words, flexibility in the aims and methods of action research means that:

As the work proceeds new aspects of the problem emerge which require further [questions] and perhaps the collection of different kinds of data. The approach is able to respond to a shifting problem, thus teachers have a strong research role and focus the work on problems which [teacher-researchers] can justify as being socially, culturally and/or economically significant. In parallel, the generation and testing of [questions] not only adds to understanding but provides teachers with a strong development role as [teachers] try out the usefulness of different approaches to [their] problems. (Harlen 1977, p. 25)

# **Key features**

The four key attributes of action research are: strategic action, collaboration, the research spiral, and the role of facilitation (Elliot 1978, pp. 355–357; Grundy & Kemmis 1982, p. 88; Hodgkinson 1957, pp. 137–153).

## Strategic action

An educational action research project originates with a general idea based on actual curriculum problems or possibilities for change in a particular educational setting. The strategic action, therefore, must focus on an area which is susceptible to change by taking into account the constraints of the sociopolitical context. By strategically acting on this meaningful problem or possibility, the teacher's theoretical understanding can be deepened through rational and constructive critical analysis. The curriculum practices which provide the subject matter of action research must be deliberately and consciously pursued to facilitate productive, retrospective explanations.

Curriculum problems occur when curriculum policies and/or practices fail in realising their intended purposes. This inadequacy presupposes that teachers

possess principles for publicly justifying their assumptions and practices. The failure in curriculum practice may reflect failure for a teacher's curriculum theory, or the policy she or he is testing. The undermining of the validity of curriculum theory or policy by the non-fulfilment of teacher expectations for practice indicates a gap between curriculum theory and practice. By making professional judgments framed for a specific educational situation, teachers can act strategically to close these gaps. From a socially critical perspective:

the teacher needs to develop a systematic understanding of the conditions which shape, limit and determine action so that these constraints can be taken into account. And this is seen to require active participation of the practitioner in the articulation and formulation of the theories immanent in his or her own practice, and the development of these theories through continuing action and reflection. (Carr & Kemmis, n.d., p. 160)

The valuing and applying of popular culture, through collecting and systematising it, is another technique which:

allows account to be taken of cultural and ethnic elements frequently ignored in regular political practice, such as art, music, drama, sports, beliefs, myths, story-telling, and other expressions relayed to human sentiment, imagination, and ludic or recreational tendencies. (Fals Borda 1990, p. 91)

An investigation of popular forms of recreational expression might be used to display the power of social criticism against the alienation, injustice and irrationality of significant social issues. The ferment associated with students' knowledge of these issues might be examined as a potential resource for the curriculum. Such an investigation might focus, for example, on the many forms of story-telling:

tales, legends, parables, fables, anecdotes, riddles and puns. Even refined gossip, viewed as information, may be useful as a means of [developing social criticism and active citizenship]. All these elements of oral culture may be exploited as a new and dynamic political language which belongs to the people ... especially those forms which contain an implicit protest intention [i.e. social criticism]. (Fals Borda 1990, p. 93)

These and other forms of popular culture could be investigated and better understood with a view to establishing a deeper sense of the countervailing possibilities in a changed curriculum.

### Collaboration

Another key feature of action research is its emphasis on collaboration. The teacher responsible for improvement in the curriculum practice is involved in every phase of the research cycle. Gradually, others come to collaborate and participate in the project. Group interaction is an important vehicle to facilitate self-reflection and changes in teachers' curriculum theory and practice. Discussions with those involved contribute to the validity of personal insights. Conversations with one's colleagues provide significant professional development opportunities, especially where they are exploratory rather than didactic or judgmental:

Such conversations can bring to full awareness neglected perspectives on teaching, its complexity and richness as a practical art. They can give teachers a chance to think, to reflect ... on what has been done ... Teachers have unequalled potential for providing this service to each other ... Out of these reflective, supportive conversations a clearer identification of the practical principles guiding teachers can be formulated. (Yonemura 1982, p. 241)

Action research is perhaps best done by mutually supportive groups of teachers (and students) (Tripp 1990). This is because the group is better able to address the difficulties of doing the research and because teachers (and students) sharing similar interests are likely to be more supportive of each other. The point is that collaboration, rather than individualism, is an essential feature of action research. Through the language of good sense, teachers are able to describe and explain strategic actions to colleagues to gain useful feedback. The type of involvement required:

... is collaborative involvement. It requires a special kind of communication which recognises the authentic knowledge of group members, recognises distinctive points of view, and engages them in practical and political deliberation about practice (with a corresponding political consciousness). The appropriate kind of communication has been described as "symmetrical communication", that is, a level of communication which allows all participants to be partners of communication on equal terms. (Carr & Kemmis n.d., p. 176).

## Research spiral

The interdependent phases of the action research spiral of planning, acting, observing and reflecting provide the teacher–researcher with an organised framework for learning about the curriculum and possibilities for changing it. To begin with, a tentative and exploratory plan is made and then implemented. The action phase is monitored to provide the teacher–researcher with valuable data to aid reflection and the planning of future curriculum changes. Given that the intention of education is to contribute to the development of "relatively autonomous learners", a group of teacher–researchers would progressively learn to direct their own work. Typically, this involves learning some of the skills of research and development needed for the collection and analysis of evidence (Tripp 1990). Teachers need to be given convenient techniques for undertaking action research projects to permit them to develop and sustain their own studies of curriculum change (McTaggart 1982). It is important to note that the techniques of action research:

do not exclude a flexible use of other practices deriving from sociological and anthropological tradition such as the open interview (avoiding any excessively rigid structure), census or simple survey (on rare occasions mail questionnaires), direct systematic observation (with personal participation and selective experimentation), field diaries, data filing, photography, cartography, statistics, sound recordings, primary and secondary source materials, notarial, regional and national archives. (Fals Borda 1990, p. 95)

### Collective research is the systematic use of evidence:

collected and systematised on a group basis, as a source of data and objective knowledge of facts resulting from meetings, socio-dramas, public assemblies, committees, fact-finding trips, etc. This collective and dialogical method not only produces data which may be immediately corrected or verified but also produces a social validation of objective knowledge which cannot be achieved through individual methods based on surveys or field work. In this way confirmation is obtained of the positive vales of dialogue, discussion, argumentation and consensus in the objective investigation of social realities. (Fals Borda 1990, p. 88)

This technique might be illustrated in the following way. The curriculum leader or facilitator might ask a group of teachers to assemble on a number

of different occasions. These assemblies provide a social arena in which the teachers address concerns they have about a particular curriculum issue of local and global significance. Teachers are invited to present evidence to the assembly in the form of eyewitness accounts, documents and informed opinions. Through comments and analysis of the evidence presented to the assembly, teachers can correct data and fill in missing pieces of evidence, as well as gain a new meaning from the information they have collected. At the final assembly, teachers listen to the final draft of their collaborative project report, from which should emerge the polished report.

This is a technique used to discover, through collective memory, those elements of the past which prove to be useful in addressing significant curriculum issues, and which may prove useful in extending teachers' professionality. This technique, the critical recovery of history, uses oral investigation methods:

in the form of interviews and witness accounts by older members of the community possessing good analytical memories; the search for concrete information on given periods of the past kept in family coffers; data columns and popular stories; by ideological projections, imputation, personification and other techniques designed to stimulate collective memory. In this way folk heroes, data and facts were discovered which corrected, complemented or clarified official or academic accounts... Or completely new and fresh information was discovered which was of major importance to regional and national history. (Fals Borda 1990, p. 89)

In this way history takes on a new meaning, in which truth is now clearly seen to be connected to power, in so far as facts are not merely remembered but can provide resources for teachers to engage in curriculum work for a better education for all. Action research should contribute to an exploration of why certain values or world views, practices and social relationships are a problem for teachers, as much as they are for other people. Considering how these may contradict or clash with one another is an important aspect of action research (Tripp 1990). The extension of teacher professionality involves an incremental learning process, punctuated by practical improvements to enhance understanding. The potential for understanding, gained through thoughtful deliberation, can help to transform teachers' curriculum practices and knowledge as they struggle for a legitimate voice in education:

The point of educational research is, therefore, not merely to produce better theories about education or more "effective" practices; educational research of the kind being advocated makes practice more "theoretical", in the sense that it is enriched by critical reflection and simultaneously remains practical in the sense that it helps to make the judgements which inform educational practice more trenchant. (Carr & Kemmis n.d., p. 131)

However, the action researcher must establish ethical standards regarding the gathering and use of information solicited from collaborators. In undertaking action research it is necessary to establish and follow a series of ethical principles of procedure, and to engage in a self-critique of the gap between the expressed principles and their practice (McTaggart 1982). Such procedural principles include:

- observing protocols
- involving participants
- negotiating with those affected
- · reporting progress
- obtaining explicit (in writing) authorisation before you observe
- obtaining explicit authorisation before you examine files, correspondence, and other documents
- negotiating descriptions of people's work
- obtaining explicit authorisation before using quotations
- negotiating reports for various levels of release
- accepting responsibility for maintaining confidentiality
- · retaining the right to report your work
- making principles of procedure binding and known.

### **Facilitation**

There are two sources of experience which should inform the action research project: those internal to the investigative group and external agents or animators of the process of curriculum change. Both the internal and external facilitators "contribute their own knowledge, techniques and experiences" (Fals Borda 1990, p. 82) to the process of action research. Of

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course, these sources of knowledge result from different social formations (some experiential, some from the academy) which produces a creative tension to inform the investigative process. The knowledge from both sources permits the acquisition of a richer and more comprehensive picture of the curriculum and its potential for change. The knowledge drawn from critical social science plus the empirical knowledge produced by the teacher—researchers may together give rise to more powerful forms of curricular understanding.

The facilitators need to support the teacher-researchers in their analysis of evidence, giving them the skills and competencies to do so, but should not accept invitations to provide seemingly "correct answers". Similarly, facilitators need to carefully avoid assuming the role of the indispensable data analyst, and instead, insist that the teacher-researchers analyse both the data and the patterns of dependency and habits of submission they may have inherited. The facilitator should act as a catalyst, playing a crucial role in linking up the teachers' localised curriculum research to broader regional. national and international levels. However, facilitators need to ensure that the teachers have research training. Socio-dramas may be used as a technique for training teachers for various research tasks such as interviews or such methods as registering, counting, systematising and analysing data. In this way the mythology of "magic" or difficulty surrounding the notion of research itself may be challenged. Action research also undermines the monopoly claim by some on the production of information and knowledge for and about curriculum change.

The facilitator of the action research project has to make a serious effort to come to understand the details of lived reality of the curriculum and its change. The facilitator's job is to be educated by the teachers (the insiders), and to actively acquire such knowledge. It is not the insider's responsibility to deliver knowledge to the facilitator:

... it cannot always be the teacher's responsibility to contribute the time and effort, from their already full lives, to educate the outside community ... re-educating ourselves about schools and teaching ... complex identities of teachers is the idea that epistemic privilege does not mean that the knowledge that they have of their oppression is in any way "incorrigible" ... that teachers, as all of us, are not unified subjects. (Noffke 1991, p. 58)

Further, teachers can be mistaken about the nature of the curriculum and its change; other teachers may differ in their interpretation of them. The

facilitator needs "methodological humility" and "methodological caution" (Noffke 1991, p. 58) to recognise that she or he may be missing something, and that what appears to be a "mistake" may make more sense given a fuller understanding of the situation. Further, the facilitator needs to be careful not to denigrate or dismiss the perspective or standpoint of the insider. As for disadvantaged groups, teachers need to be able to speak for themselves and represent their own interests. There are moral and political reasons why the voices of teachers (as much as the voices of the disadvantaged) need to be heard, not the least being that it encourages the development of autonomy, identity and self-respect.

## Restoring knowledge

Integral to the process of action research are the production and diffusion of new knowledge about possibilities for curriculum change. Of course, the written word should not be allowed to monopolise reporting, which might extend to visual and oral messages. A good action research report is likely to be addressed to a number of audiences, using different styles and written, auditory and visual media if required. Nevertheless, it will be necessary for the report to articulate key curriculum concepts, models and theories. There is a range of ways of presenting reports of action research projects, including:

the use of image, sound, painting, gestures, mime, photographs, radio programmes, popular theatre, video-tapes, audio-visual material, poetry, music, puppets and exhibitions. (Fals Borda 1990, p. 94)

In any action research there is an ethical:

obligation to return this knowledge systematically to the communities and worker's organisation because they continue to be its owners. They may determine the priorities concerning its use and authorise and establish conditions for its publication and dissemination. (Fals Borda 1990, p. 94)

One of the important stages in the process of action research is the attempt to restore knowledge to those from whom the information for the investigation originated. This restitution stage involves the release of ordered and systematised knowledge in words that can be understood by the various audiences. Such efforts to communicate are themselves a recognition of the possibility of other teachers, parents and students

comprehending new curriculum information and ideas. The problem is not one of reaching teachers with information derived from external sources; rather it is a matter of restoring to them knowledge which they helped to form. This knowledge is presented anew to help them gain a deeper comprehension of the possibilities for changing the curriculum and to enable them to better articulate their curriculum critiques. Thus, project reports might take various forms, including pamphlets which are easy to read and understand, manuals, audiovisual materials, and musical and theatrical performances (Fals Borda 1979, p. 45).

## Theoretical basis for action research

Carr (1980, pp. 66–69) challenged the authenticity and value of depending on positivistic notions of social science to inform curriculum theory and practice, especially given their presuppositions about the division between theory and practice. The view that practical curriculum theory is different in intent and form from natural scientific theory is gaining support. Curriculum theory and practice can draw their knowledge from history, philosophy and the critical social sciences. Teaching is inherently a practical-cumtheoretical activity, intended to develop students' knowledge and abilities. Teaching is a theoretically informed practice, that is, a:

consciously performed activity that can only be understood by reference to the framework of thought in terms of which its practitioners make sense of what [they] are doing and what it is [they] are trying to achieve. In this sense, anybody engaged in [curriculum] pursuits must, no less than anybody in theoretical pursuits, already possess some "theory" in virtue of which his or her practices are conducted and his or her achievements are assessed. (Carr 1980, p. 64)

Theories which inform curriculum practices share common attributes. First, being products of inherited sociohistorical traditions each appropriately conceives experience according to its respective context. Second, each theoretical perspective uses assumptions, beliefs, concepts and values which enable appropriate schematic interpretations to be made. Third, problems develop for curriculum workers when the effectiveness of their theories and practices are found lacking. Finally, gaps evident between theory and practice lead to critical reflection "about the capacity of the entire conceptual framework within which these practices are understood, to

provide a satisfactory characterisation of educational activities at all" (Carr 1980, p. 64).

The use of teachers' knowledge about curriculum practice increased during the 1980s especially, as leading teacher educators encouraged them to detail their theoretical underpinnings and beliefs about curriculum and its change. They have learnt "that ordinary people can be rich repositories of valuable information and ideas, growing out of [their] lived-in experiences" (Yonemura 1982, p. 242). Hunt (1980, pp. 287–293) offered teachers help in identifying and defining their theories of curriculum and change. He argued that these theories should be based on, but not restricted to, classroom experience, and actively sought to increase the legitimacy of teachers' curriculum theories. This perspective acknowledges that teachers have broad theoretical powers which may be developed further. As such, the advancement of curriculum theory, in part, can be regarded as the critical assessment of the assumptions, beliefs, concepts and values evident in teachers' current theories.

Within the dynamic action research spiral can be found the moments which unite theory and practice, and which lead to systematic and responsive improvements in both. During the observation and action moments, action researchers engage in practice in a specific social context. Theoretical discourse among project participants is engaged in during the moments of planning and reflection. Through rational criticism past theories of curriculum practice can be stripped of irrationality and ignorance, and supplanted by improved theoretical understandings, thereby transforming curriculum practice. In so doing, we close the gap between theory and practice (Figure 2). Active teacher participation in the generation of curriculum theory is indispensable. However, rather than validating theory, the action and reflection moments of action research enable a continuing extension of teacher professionality. This conceptualisation of the theory-practice relationship regards it as a constant and continuous process "-theory-practice-theory-practice ... Each fits into a spiral of growing understanding" (Macdonald 1982, p. 59).

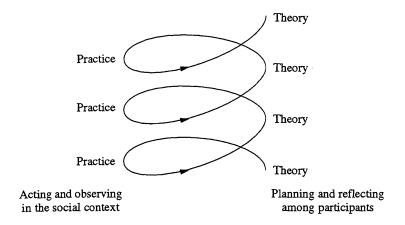


Figure 2: Spiral of theory-practice in relation to a growing process of understanding

Adapted from Macdonald 1982, p. 59

Teachers' commitment to curriculum practice incorporates a theoretical reference point which explains and guides their work. Their theoretical framework is embedded in a specific educational situation and is modified by interactions therein. Action research generates and challenges the grounded theories used and understood by teachers. Action researchers:

expect advances in theory or understanding to be consequences of [their] real world interventions. In other words, [they] are inclined to see the development of theory or understanding as a by-product of the improvement of real situations, rather than application as a by-product of advances in "pure" theory. (Carr & Kemmis n.d., p. 32)

To be educationally valuable, grounded theories must be subjected to challenge in the stark light of curriculum practices. By rational, critical reflection, theories can be assessed, corrected and improved. The effectiveness of curriculum theories will result from review and development through collaboration with teachers' critical community of students, parents and fellow teachers. Having identified a curriculum concern:

critical theory will provide the kind of self-reflective understanding that will permit teachers to explain why it is that the conditions under which [we] are operating are frustrating and which will suggest the sort of action that is required if the sources of these frustrations are to be alleviated. (Carr & Kemmis n.d., p. 145)

# Strengths and limitations

The current revival of interest in educational action research is due to its rediscovered strengths: the pursuit of enlightenment, an orientation to practical curriculum problems and an emphasis on collaboration. The methodology of action research provides a practical mechanism for extending teacher professionality. It meets the challenge of developing teachers willing and capable of cooperatively resolving curriculum problems and of exploring possibilities through self-examination of their own practices, systematically and reflectively. Odell (1976, pp. 106–111) argues that this research process articulates well with teaching, because it involves making inferences, continual situational assessments, comparisons between conclusions and expectations, discovering a new sense of reality and formulating problems. Similarly, Splaine (1975, pp. 6–7) argues that teachers can also use research methodologies when assessing the efficacy of curriculum materials. Teachers involved in action research projects:

demonstrate that they can find new and what they themselves regard as better ways to interpret their own educational action in context, and new ways to act in the practical, political circumstances of schooling in which they find themselves. (Kemmis 1991, p. 63)

The argument is that by making teachers aware of this research process, more sophisticated curriculum decision making will be possible. Thus, action research seems to be a powerful tool which teachers can utilise to extend their professionality and consolidate the gains of the 1970s in curriculum decision making. Action research projects have:

shown how teachers have been able to reorder their ideas about themselves, their practices and their circumstances. This is not to say that they develop seamless and comprehensive worldviews which contain no contradictions – but no one claims that for any social or educational theory, let alone the kinds of social and educational theory constructed in the rough and tumble world of practice. What, at best, they do develop is theories and practices and practical circumstances which are more rather than less justified in their own understanding, more rather than less comprehensive, more rather than less alert to contradiction. (Kemmis 1991, p. 64)

Action research frees teachers to inquire into real, concrete curriculum problems and possibilities. The ethical responsibility teachers have for their students' education charges them with a deep concern for specific curriculum issues which need to be directly addressed. Hodgkinson (1957) noted that a significant strength of action research is that the teacher–researcher is both producer and consumer. A teacher is more likely to change her or his curriculum work:

because of information he himself [or she herself] accumulates about these same pupils in order to work more effectively with them ... Much greater influence will be exercised ... by those data a teacher himself [or herself] brings together and interprets in connection with his [or her] attempts to solve an instructional problem about which he [or she] is seriously concerned. (Corey 1949)

The gregarious needs of people are accommodated through the collegial spirit of action research which aims to be participatory and collaborative. Group attempts at problem solving induce creative and critical thinking, broadening participants' vision through inspiration and enthusiasm. Through involvement with colleagues, feelings of inadequacy and reluctance may sometimes be overcome with the lessening of the fear of individual failure. The loneliness and isolation of teachers acting independently in classrooms and libraries may be overcome through intelligent group action:

Working together on a common problem is a source of security, status and recognition. The participant learns that he [or she] is not an ugly duckling who has "problems". He [or she] finds to a great extent these problems are common and shared by other people. The individual accepts having a problem not as a stigma, but as a normal aspect of living. He [or she] is helped in releasing his [or her] blocked creativity and in channelising his [or her] mental and emotional energy toward improvement and progress. (Shumsky 1956)

However, action research has limits to its potential which must be identified. For example, in order to "prove" that a given practice is better than an alternative, it would be necessary to employ an experimental research methodology rather than action research. When teachers are obliged to follow prescribed curriculum practices (e.g. as decreed by government) or are satisfied with the current situation, action research's usefulness for professional self-development and curriculum change is not appropriate. The focus of action research means that it is not suitable for working on

seemingly semantic problems, such as debating whether a library is a "media centre" or a "resource service". Elliot and Adelman (1973, pp. 8–20) noted three significant limitations to action research:

- First, there was an inadequate number of people competent in this field to support teachers' demands for facilitating research work.
- Second, given the association of most facilitators with academic institutions, the subtle sociopolitical pressures upon them might inhibit developing allegiances with researchers.
- Third, there is a danger in teacher cooperation with academic facilitators, as this could sustain dependence rather than promote emancipation.

In the years since these views were expressed the number of action researchers has increased and many university-based teacher educators are finding appeal in the teacher-researcher concept. Carr and Kemmis (n.d., pp. 165–170) distinguish among three forms of action research: technical, practical and emancipatory. As teacher control increases from one form to the next, the role of the facilitator is minimised. With an appreciation of these important developments in action research, the limitations identified by Elliot and Adelman are lessened, although they cannot be discounted.

## Mistaken assumptions about action research

Following the lead provided by Max van Manen (1990), it is necessary to identify and challenge some mistaken assumptions about action research. In addressing these ungrounded or faulty assumptions the intention is to suggest some tentative ways in which they might be reformulated in order to restore the pedagogical qualities of action research. The following assumptions are described and then critiqued:

- 1. that a democratic approach is an inherent feature of action research
- 2. that importing knowledge from sources other than the investigators' understandings and evidence is incompatible with action research
- 3. that action and reflection are intimately and naturally integrated in action research
- 4. that action research involves change and
- 5. that teachers automatically transform action research into an educational or pedagogical process.

The idea of establishing a "democratic" relationship between facilitator and teacher–researchers is a response to criticisms of the external facilitator's power. Action research projects are seen by some as a way of breaking down the power/knowledge relations between facilitator and teacher–researchers. This redefinition has led teachers to call themselves "research facilitators" or "research collaborators" in order to emphasise the democratic nature of the power/knowledge relations in action research projects. However, as van Manen (1990, p. 153) observes:

in education the alternative to a relation of authoritarianism, oppression, and control is not necessarily best described by a relation of democratic communication. A unique asymmetry of maturity, dependency and responsibility exists in the relation between educator and student. The pedagogical relation is by nature a relation between an adult and a child, between a more mature person and a less mature person, between a person who is experienced and a person who is less experienced in the ways of the world. It is a relation in which one person (the adult) intended the growth towards self-responsible autonomy of another person (the child).

As a result of this asymmetrical relationship, educators carry:

an unshakeable responsibility for the becoming of the child. It speaks for itself that this relation is fragile and easily abused by the adult. The adult who acts towards the child in a manner that is authoritarian, abusive, and oppressive thereby destroys the pedagogical relation that a healthy upbringing and adequate education requires. (van Manen 1990, p. 153)

The opposite to oppressive authoritarianism is not democracy so much as pedagogy. That is, in a situation:

where there is a genuine desire to reflect on our daily living with children with the intent of strengthening the pedagogical quality of the children's learning and growth, a relation may be required that is more ... learning from and with someone who can really deepen my action-sensitive understanding. (van Manen 1990, p. 153)

In spite of attempts to keep externally produced knowledge—especially the knowledge critical social science has produced about curriculum concepts, models and theories—out of action research, it seems to be constantly slipping in at various stages in these projects. It is important to remind ourselves, however, that the knowledge available to teacher-researchers

through the work of critical social theorists is an important resource for any action research project. Good theoretical resources will offer something substantive and insightful regarding the issue being investigated. Certainly, this knowledge provides one point of reference with which teacher—researchers can use the results of their investigation to argue. But what are the entrance point and role of this external knowledge? Such knowledge might be used to enlighten teacher—researchers after they have collected and interpreted their own evidence. In this way they could become more aware of the educational and social significance of the issue they have been researching. By accessing the knowledge these theoretical perspectives have to offer, along with reports of other efforts at curriculum change, participants are able to lift their shared critical analysis beyond misunderstanding and collective ignorance.

Some have taken to action research in an instrumental way, using it as a tool to influence or determine teachers' actions. Others see reflection (theory) and action (practice) as being mutually constituted, one in the other. But despite the efforts of the latter, many still see action research as involving a linear relationship between knowledge and action: developing the ability to engage in action research is seen as a means to the end of achieving corporate managerial goals. Thinking about action research in these instrumental terms is wrong, because in any given situation curriculum theory and practice are blurred. It may be more useful to think about this relationship in terms of "thoughtfulness" and "tact," as suggested by van Manen (1990, p. 154). Thoughtfulness and tact are inseparable:

Reflective thoughtfulness can only express itself as tact, and tactfulness must express itself in a manner that is full of reflected thought ... when we refer to a person as tactful, we simultaneously refer to a certain thoughtfulness or sensitivity as well as to a certain way of acting. (van Manen 1990, p. 154)

For some, the significance of action research is that it leads to changes in the curriculum. Thus, for instance, there is not only an emphasis on the development of more sensitive and understanding teachers, but through their action research projects it is expected that they will have achieved some demonstrable curriculum change. In this sense, action research is seen as providing an informed basis for deciding what teachers should do, or at least plan to do. However, another important issue for action research is for teachers to learn to deal with what they *should have done* in terms of both content and procedures: "About what did I need to know more? How do I

need to improve my research procedures?" Thus, an important part of any action research project is not just planning for future curriculum change, but also looking back at the experience of the project itself. The focus at this stage should be on making thoughtful sense of the research experience itself.

Does the mere fact that teachers are at the centre of an action research project ensure that the investigation itself will be educationally or pedagogically worthwhile? This is a questionable assumption, and it may be worth heeding van Manen's (1990, p. 155) warning:

all education involves teaching but not all teaching automatically constitutes education. Teachers have extensive and rich knowledge and experience of the practice of teaching children. But this knowledge and experience is constantly threatened by cultural and political forces that tend to impoverish and erode our pedagogical relation to our children.

Given the prevailing cultural and political conditions of our time, action research is often reduced to techniques for thinking or the mechanics of problem solving. The emphasis is placed on seeking "solutions, 'correct' knowledge, effective procedures, winning strategies, calculative techniques, and 'methods' that get results" (van Manen 1990, p. 155). However, action research is intended to deepen teachers' understanding of significant curriculum issues, so that they are more informed, more knowledgeable, and therefore "able to act more thoughtfully and more tactfully in certain situations" (van Manen 1990, p. 155). There are many significant curriculum issues which are unlikely ever to be subdued; they will remain for a long time issues of social significance despite changes in their form or locality. It would be ironic to think that teacher—researchers found it easier to propose solutions to socially significant curriculum issues than to adequately understand the social significance of the issues themselves.

## Criteria for critical educational research

In some respects action research may be somewhat innovative but it largely aspires to the tradition of critical hermeneutics (Bernstein 1976, pp. 171–236; Fay 1975, pp. 92–110; Held 1980; McCarthy 1978). No

attempt is made here to summarise this paradigm of social theorising, though it should be noted that critical approaches to research:

are distinguished from interpretive approaches primarily by their connections to theoretical perspectives which are linked to a general theory of society and a concept of social structure which exists beyond the actor's perception of it ... Critical approaches emphasize class conflict, the dissimilar interests of various classes, and their differing relationship to (and beliefs from) the workings of the education system. (Maseman 1982, p. 9)

This section identifies the requirements that action research must accept if it is to fulfil the criteria of critical educational research. It is recognised that these requirements and the fulfilling of them are problems. The idea of critical educational research and theory is to identify and give expression to the contradictions and conflicts teachers actually confront in the curriculum and efforts to change it, and to help them to overcome them. Critical education science which provides the foundation for "emancipatory action research" involves a:

commitment to the pursuit of more rational, just and satisfying forms of social and educational life, it has no simple definition of what these states are ... it is acutely aware that it can only proceed negatively, as it were, by engaging in the struggle to overcome what people can experience for themselves as contradictory, irrational, unjust, unsatisfying or oppressive. (Kemmis 1991, p. 62)

From a reading of Carr and Kemmis (1986, pp. 129–154), Bernstein (1976, pp. 213–219) and Fay (1975, pp. 92–110) the canons of critical educational research are examined below. They may be summarised as follows:

- rejection of positivistic notions of rationality, objectivity and truth in favour of a dialectical view of rationality, an historically and socially embedded view of truth, and critical intersubjectivity
- acceptance of the need to employ the interpretive categories of those who did the work, using their language and meanings to explore, develop and theorise their experience
- 3. provision of both ways of recognising and distinguishing ideologically distorted interpretations from those that are not, and some view of how any distorted self-understanding may be overcome
- 4. identification and exposure of those aspects of the existing social order over which participants have no direct control and which frustrate the

- pursuit of rational change, and the offering of theoretical accounts which make people aware of how these constraints might be eliminated or overcome
- recognition that critical educational theory is practical, in that it is directed towards helping people inform themselves about the actions they need to take to overcome their problems and to eliminate their frustrations.

# **Negotiating truth**

Critical educational research entails, first, regarding truth as socially constructed and historically embedded (Carr & Kemmis 1986, pp. 182–183; Fay 1975, pp. 108–109). This approach to research rejects the positivist notion of truth "as standing above or outside history and the concerns of participants in real social situations" (Carr & Kemmis 1986, p. 149). Moreover, it also rejects the relativist position that what is true is whatever a given culture deems to be true. Rather, what is taken to be true within any culture can be understood only if its relation to the actual and possible cultural resources of the society in which people live is recognised. Truth is dependent on the concepts that one's culture makes available, enabling people to think in certain ways. It is therefore possible to say whether one view of truth is better than another. However, to do this we have to be able to view truth in relation to existing material conditions or social frameworks, and the "needs" of a certain historical period.

To meet the first criterion of critical educational research, it is necessary to adopt ethical guidelines concerning the negotiation of accounts (Simons 1984, pp. 87–92; also see Finch 1986, pp. 195–221). The conventions employed by Kemmis and Robottom (1983, pp. 59–73) for conducting curriculum evaluation may be modified in anticipation of meeting the needs of action research projects. The "principles of procedure" established at the beginning of an action research project relate to the negotiation and release of individual "case records" and the production of the project report. For example, participants may be asked to recall what they thought were significant events in history which led to the production of a particular curriculum policy. Two important procedures would then be followed in the preparation of each individual's case record, making sure that anything libellous is removed. First, each participant would be asked to check

carefully the accuracy, fairness and relevance of the researcher's "retrospective account" of her or his work. Second, once they were happy with their own case record there would be a phased release to other members of the team. Throughout the fieldwork the problematic nature of these procedural principles would be noted.

# Interpretive categories

Critical educational research must be grounded in the meanings, experiences and interpretations of practitioners (Carr & Kemmis 1986; Fay 1975). As noted above, in order for action research to have any subject matter at all, it had to attempt to understand the meanings that curriculum and change have for those involved in this work. It is necessary for a researcher operating in the "critical" mode to come to a judicious understanding of the conditions which make the curriculum and its change possible from the point of view of those involved (Outhwaite 1975).

On the basis of this criterion, an action researcher does not impose meaning. Rather the action researcher must make a conscious critical and self-critical effort to understand the history of the curriculum and its change in the ways that those associated with it variously see it. For this reason, and for coherence with the principles of critical educational research, the action researcher must develop an empathetic stance towards the articulation of the curriculum as it is lived by those associated with it. This means accepting at the outset that participants have their own authentic and thoughtfully examined views, and recognising that differences between individual accounts will frequently, even usually, make a positive contribution to constructing an authoritative account of the curriculum and its change. This interpretive account provides a framework for examining the ways in which the curriculum and its change are laden with a range of possibilities, and the role of power relations in shaping them. Thus, action research allows for and encourages the presentation of multiple accounts, and in this way may give a more accurate rendition of the complexities that mark the curriculum and its change, than a single, unified account may do. By recognising and recording the multiple voices in the "historical conversations" which shape the curriculum and its change, it may be possible to identify and analyse the specific aspects of reproduction and transformation (change and stability), power and knowledge, social order and social movement, contestation and institutionalisation.

Arguably, being embedded in the structure and processes of the life experiences of the conditions being studied (the curriculum and its change) is essential. Such an approach is based on the participant—observer and observer—participant methodology. By directly sharing and participating in these situations the action researcher is able to construct an authentic and (one hopes) a sensitive account of the curriculum and its change. The product of this participation—observation fieldwork is a research diary recording critical incidents, events, quotes, impressions, transactions, information and informal remarks.

## Critical reflection

As noted above, action research projects framed exclusively within the naturalistic perspective are inadequate. While the interpretive aspect is important, many interpretive studies simply accept informants' accounts (or documentary records) at face value, making little attempt to see how participants' ideas might be limited, misleading or not fully informed. It may be that the conditions in which people labour have engendered illusory beliefs, irrational forms of social relations and contradictory modes of work. For this reason, critical educational research provides a process for distinguishing those self-understandings and interpretations which are systematically distorted from those which are not. There are a variety of theoretical resources which could guide the work of critical reflection that action researchers need to undertake—for example, theories of the social construction of curriculum knowledge (Young 1971), social injustice [expressed in terms of considerations about equality (Norman 1987) or oppression (Young 1990)], standpoint epistemology (Harding 1986; 1991), and knowledge constitutive interests (Habermas 1978). The construction of a descriptive account is only the first level of data analysis. Descriptive analysis is a preliminary moment in a wider reflective critique of the prevailing understandings of curriculum and its change. Teachers' powerlessness is, in part, constituted by their being denied access to appropriate educational knowledge and the means of producing their own curriculum theories and practices (Noffke 1991, p. 58).

In action research, critical reflection uses these theories (and other resources as appropriate) to address the contradictions, anomalies and omissions in the curriculum and accounts of its change. Thus, one aspect of critical reflection is to examine the ruling paradigms embedded in the curriculum for their

inadequacies, exclusions, and deficiencies. However, even erroneous social understandings may implicitly contain the seeds of a new social conception and world view (Fay 1975, p. 99). The prevailing paradigm may not be totally false or inadequate, but may contain some intimation of its emancipatory aims, needs and interests. Thus, critical reflection is not destructive, but must indicate how the content of a curriculum conceals a latent sense of truth. In its positive moment, critical reflection reveals unrealised potentialities and possibilities. In this way, the task for critical reflection is to find implicit in distorted ideas the genuine which has to be made explicit, and to suggest how contradictory and inadequate understandings may be overcome (Carr & Kemmis 1986, pp. 137–139). Critical reflection seeks to rescue our understandings from confusion and contradiction.

# Agency and structure

Critical educational research also identifies and discloses those aspects of the social structure which frustrate rational, just and fulfilling curriculum change. Further, it indicates how these constraints might be overcome or eliminated (Carr & Kemmis 1986). The action researcher makes an effort to uncover those ideas, practices and social relationships which influence the actions of individuals, and the unintended and unanticipated effects of those actions (Fay 1975). Critical educational research recognises that many human actions are socially informed and constrained, though not necessarily decisively determined. The critical approach takes the view that the meaning of social situations is always related to its sociohistorical conditions and to the individuals involved. This view has a long standing in the sociological and anthropological literature. For instance, Malinowski (1927, pp. 296–336) demonstrated that embedded in any text lies a whole cultural heritage. The immediate situation and the broader cultural conditions not only give a text shape and substance, but also play a major part in interpreting its meaning and understanding its significance.

Dahrendorf (1979) provides a dialectical analysis of the relationship between organisational forms and individual action. Existing social and educational structures are seen to both enhance and constrain curriculum action, thereby creating sources of possibility and tension. These struggles give rise to changes in the organisation and individuals within it. The "options" which curriculum leaders can select are structured, with

"ligatures" both constricting and facilitating their choices. On the one hand, there are "options", "choices", "opportunities" and "alternatives", while on the other there are "ligatures", "allegiances", "bonds" or "linkages" which structure the possibilities for curriculum change. When planning curriculum change "options" cannot be considered without due regard to "ligatures". Watkins (1985, p. 12) explains the relationship thus: "Human agents confront and react to organisational structures as a sequence of constrained choices". Giddens (1979) explores the dialectic of human agency and institutional structuration. Structure is both the medium and outcome of human agency, simultaneously constituting the agent and generating conditions for action. Individual teachers carry out their curriculum work within a structured framework which both enables and constrains curriculum change. More than that, human agents are able to reflect on the social institutions which both condition and enable them to construct their lives. Watkins (1985, p. 23) explains:

the reproduction and transformation of social institutions in which human beings practice and live their daily lives is a skilled accomplishment of actors. Moreover, this accomplishment takes place within the bounded conditions in which the reflexive rationalisation of action might take place. Structuration, then, attempts to enmesh both knowledgeable and acting human agents as integral facets of social structure and the conditions or methods of social action.

There will be certain constraints on action research as a pedagogical strategy as well as constraints to be considered in the investigation of any particular curriculum changes (Tripp 1990). Materially, teachers may be constrained in the nature of the action research project they undertake by the number of students they work with, the rigidity of their timetable, concerns about the movement of students and associated noise levels, and/or suggestions that parents will not understand or support such research. Of course, these are socially constructed constraints around which it may be possible to negotiate, or which may need to be demythologised. To counteract the myths surrounding "parents" it is always a good idea to have some parents involved in the research project in various ways. It is also worth remembering that our own taken for granted assumptions and accustomed ways of thinking and working are perhaps the greatest constraints on curriculum change:

the possible courses of action that we perceive to be open to us are often determined by the amount of effort we can put in and the amount of risk we are prepared to take... [The nature of the action research project] will vary according to how the [teachers involved] regard them, i.e. as givens to be worked within, as givens to be worked around, or as human constructs that may be changed. (Tripp 1990, p. 163)

# Theory and practice

Critical educational research is practical, in so far as it indicates how these problems might be overcome. The action researcher moves beyond the "interpretivist" position to share in efforts to change a particular curriculum so that its educational values can be more fully realised (Kemmis & Fitzclarence 1986, p. 117). Critical educational research is directed at going beyond merely understanding curriculum realities to learning from efforts to change them. This idea has found legitimacy through teachers undertaking action research which is an important legacy of the curriculum reform movement of the 1960s and 1970s (Kemmis & McTaggart 1988; Stenhouse 1975).

Action research has relevance to critical educational theorising to the extent that it makes available knowledge about the complexity of the curriculum and the possibilities for its change. It can generate knowledge of continuities and discontinuities between past ideas, practices and situations and those of the present. Moreover, it can disclose the historical roots of contemporary curriculum issues, especially the problems of change. However, action research is not a search into the past for solutions to present-day curriculum problems. The "critical" approach to action research outlined here might help teachers to place certain current issues about the curriculum and its change in a new perspective. While action research cannot solve the curriculum issues that are currently being contested, it can inform possibilities for effecting strategic change.

## Conclusion

The history of action research reveals subversion of its ideals from within and horrendous assaults by external agents who themselves were under threat. In a context of continuing struggle against positivism, action research has arisen and been renewed and strengthened by the framework of critical social science. In returning to Hoyle's (1974) model of extended professionality, the value of action research becomes evident. Curriculum changes arise from the mediation of practice and theory, and are checked by the broader socio-political context of educational and social reform. Professional collaboration is valued as a means for comparing methods and impressions of reported changes, though, unlike Hoyle's view, introspection and intuition are seen as invigorating attributes of teacher–researchers. This is not to the discredit of teachers, for it has been argued that:

a close examination of how science has developed reveals that personal, subjective and social factors play a crucial role in the production of knowledge ... When understood in this way, it becomes apparent that the positivist conception of objective knowledge is nothing more than a myth. (Carr & Kemmis n.d., p. 76)

Action research still holds significant potential for curriculum leaders to guide their learning, and to create a reflective framework for curriculum decision making and action. However, they need to use the ideas discussed in this paper to guide their decision making, not as rules to be followed slavishly. Action research cannot be perfected, nor can its outcome be guaranteed; Kemmis (1990, p. 61) notes that "action research is no panacea; it offers us no utopia". Action research is about the importance of examining what and whose knowledge is represented in the curriculum: the knowers, and the production of knowledge (Noffke 1991, p. 59). Action research is a resource curriculum leaders have for learning to make a better curriculum, to do better curriculum work, and in some small way to build a better society.

# Recommended readings

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