

THE PATTERNING AND POSITIONING OF EDUCATIONAL RESEARCH

Radford Memorial Lecture
Twenty-first Annual Conference
Gold Coast, November 1991

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It is a privilege and an honour to present the Radford Memorial Lecture. Radford's ideas on school leavers influenced my own work on 15 to 18 year olds; and this interest led to my association with the ACER longitudinal study of youth in transition, and with the Council of ACER itself. Further, as a former President of AARE, I examined Radford's contribution to the development of educational research in Australia by way of an introduction to this same memorial lecture in 1979. So, for me, the wheel has come full circle, not only in terms of the above, but also in that school leavers and unemployed youth are again on the national agenda, and there is continuing concern over assessment, vocational education and skill shortages (although in Radford's time the words used were achievement, talent and wastage).

To pay tribute to Radford I have chosen to present a personal perspective on the patterning and positioning of educational research, taking as my timelines the 1960s to the 1990s. I intend to be broad-brush, sketching in my analyses some recurring debates on school leavers, but only insofar as these enable me to illustrate the changing nature of educational research - its funding, its theoretical focus, its socio-political context, its culture and operational patterns.

I begin with an examination of past patterns of educational research. Educational research does not take place in a socio-political vacuum. Its directions, operations, and impact are embedded not merely in pedagogy and practice, but also in social, economic and political life itself. Policy patterns, as I will show, re-occur in various cycles or waves, in which it is possible to perceive continuity and change, reform and resistance. I see these past patterns as a prelude to the current dominant pattern in research policy nationally and internationally, *viz.* research concentration and selectivity. I pose the question as to where and whether educational researchers will position themselves in this policy context. Educational research, like all other fields of scientific inquiry, is currently positioned within a policy framework oriented to national goals such as economic competitiveness and technology transfer, *i.e.*, there is an *imposed position*. However, as educational researchers we do have some choice and opportunity to

position ourselves. I therefore conclude with a degree of strategic advocacy in relation to our assuming a *chosen* rather than imposed positioning for the field of educational research as a whole, befitting the memory of Radford, and the re-emergence of school leavers on the national policy agenda.

The Changing Patterns of Educational Research

The debates on school leavers from the time of Radford in the late 1950s to the present day exemplify the importance of economic context on the changing and recurring patterns of educational research. Let me give two examples, both related to school leavers. Holbrook and Bessant (1987), in their comparisons of policies for unemployed school leavers in the 1930s and 1980s found many of the strategies pursued in the 1980s had their parallels in the 1930s: for example, traineeships were seen as one way of engaging youth to stave off 'a threat to national stability and the social fabric'; and government schools were attacked for failing to 'keep up with structural changes in the economy'. Similarly, in the United States, state engineered school reforms of the 1980s 'sought a regeneration of the American economy. This vision was anchored in popular views of the recent past (the 1960s and 1970s), when educators supposedly had permitted academic standards to slip from their high position in earlier decades' (Cuban 1990: 3), thus poorly equipping young people for their transition to adulthood. Yet, as Cuban (1990: 3) goes on to argue, a generation earlier school critics and policy makers in the 1950s declared that 'Deweyian ideologies had so permeated the public schools in the 1930s and 1940s that the curriculum had become virtually useless in providing the nation with scientists and engineers'.

To take a second example, my own analyses of the social world of Australian school leavers traced over three decades, the macro-social, historical and political contexts that had helped construct the world of adolescents. Using a life-course perspective (Poole 1987; 1989), I examined a number of messages concerning social roles and responsibilities transmitted to school leavers as they made their transition to adulthood in the Australian culture. I showed how these messages changed in the 1970s from victim-blaming (e.g., attributions of lack of jobs skills, training, and motivation in young people) to institution-blaming in the 1980s (e.g., schools irrelevant to the world of work, slow to change, and lacking vocational focus; then universities for remoteness from the worlds of science, technology, business and industry).

Both examples, show the re-emergence and recycling of policy patterns, and the public discourse shaping the lives of school leavers. They also remind us, as Riegel (1972) did, that theoretical activity does not take place in a socio-cultural vacuum, but rather is dependent upon the economic and political ideologies that dominate the society at that time. Far more broadly, Seddon (1987) has argued that a way of gaining a perspective on these changing ideologies, which construct patterned messages about what society expects and what pathways are possible for

school leavers, is contained in the notion of 'settlements'. The concept of settlement breaks with the traditional, historical, chronological basis of time identifying qualitatively distinct patterns and relationships, conflicts and crises (Seddon 1987). The Keynesian settlement (1940-60), for example, was characterised by state intervention, planning informed by the natural and social sciences, universal social provision, social welfare rather than individual compensation, and recognition of a hierarchy of talent and environmental conditions. By the 1980s, monetarism had replaced Keynesian economic theory, emphasising the macro-economic welfare state, conservative governments, increased unemployment, and an increasing displacement of culturalist concerns of equality and disadvantage by the language of economic efficiency.

Others have used the notions of 'pendulums', 'cycles' and 'waves' in interpreting the policy shifts in educational research which occur during 'settlement' changes or transitions. Cuban (1990), for example, writes of alternating waves of optimism - pessimism spanning 5 to 10 years or more in educational R & D but then argues that 'with the spread of instant media the entire pattern, with its mini-rhythm including the final deposit of a residue in vocabulary, procedures, on an occasional programme, may take five years or even less' (p. 9). Such waves, he argues, inhere in 'dominant social groups getting public schools to work on national ills, rather than risking major dislocations in the society, by addressing directly major social problems; and the shared, enduring beliefs that most Americans have about schools promoting social mobility, creating national harmony, and building solid citizens' (p. 9). He advocates a further study of reforms and changes over time 'to determine whether any patterns exist' (p. 12). In relation to science and technology policy generally, Blume points to three patterns which he calls 'phases of development': 'the 1960s which rested on the assumption of "science as the motor of progress"; the 1970s when science became primarily regarded as a problem solver; and the 1980s when science became the source of strategic opportunity' (cited in Johnston 1990: 2).

Within that broad framework of change and recurrence, let me now present something of the 'big picture' patterns of the relationships between educational research, and the socio-political discourse underpinning the funding and positioning of educational research on school leavers.

The patterns I have chosen are embedded in an economic funding context. They relate to the debates that involved the social sciences as they gained prominence in terms of their potential to contribute to social visions and programmes, and where educational researchers were well positioned to play their part in relation to categories of school leavers. I refer, in Table 1, to the economic expansions following the Second World War leading to a discourse of interventionist idealism where education was seen not only in terms of human capital (fostering, in Radford's word, the human talent and potential of school leavers) but also in terms of social amelioration. The social sciences, including education, were in a coalition with government policies positioned to win 'the war against poverty' and to eliminate 'social disadvantage'.

Table 1
Changing Patterns of Educational Research

Time Line	1950s & 1960s	1970s	1980s	1990s
Economic Trends	Expansion (1945-59)	Rapid Growth (1960-75)	Stasis (1976-88)	Recession (1989-)
Socio-political Discourse	Interventionist Idealism	Pragmatic Realism	Instrumental Rationalism	Nationalism/ Internationalism Global Competitiveness
Research Culture	Amelioration Innovation	Pure and Applied R & D	Applied Consolidation	Strategic Priority Setting
Operational Patterns	Investigator Driven	Team-oriented National R & D Centres & Labs	Focussed Centres Key Centres	Networks and Partnerships Co-operative Research Centre

Educational researchers fought linguistic and cognitive deprivation, and school failure, through innovative 'break-through' programmes, so that all young people, regardless of class or race (but not yet gender), would have an opportunity not only for social and economic survival, but also for mobility, as barriers to equality of opportunity were identified and compensated. There was optimism in the educational research community - certainly in England, the USA and Australia - as growth in funding for research to match economic expansion led to increased production of educational research, mostly investigator driven, but closely linked to the targeted social project of 'war on poverty' and 'disadvantage'. Grand theories of 'social reconstruction' emerged in their various forms. Social scientists, including educators, took the high ground in theoretical discourse and programme development.

The first half of the 1970s saw a continuation of rapid economic growth and continuing growth in pure and applied studies in education. New coalitions were formed and team-oriented interventionist research peaked. For example, in the USA, National R & D centres grew as a result of the burgeoning educational research effort. In Australia, ERDC was formed and provided both funding and direction to research in the area of school leavers and demographic change. However, as the volume of research grew, and the problems that had been identified remained, a degree of pragmatic realism began to emerge in the educational research community. Bernstein's cautionary words 'education cannot compensate for society' encapsulated the realisation that neither code acquisition nor the reframing and re-classification of curriculum knowledge could readily change the life chances of school leavers from the working-class. Research had

promised too much, and delivered too little, in terms of real solutions to recurring social problems. This, coupled with a worsening economic situation in the second half of the 1970s, led to a loss of public face for educational researchers. As the ranks of the unemployed rose with an influx of school leavers, and as mass education led to a different recruitment pool for employers in many job classifications, old rhetoric was recycled: young people no longer had the literacy and numeracy skills necessary to enter the workforce, nor did they have the social and communication skills, nor the appropriate attitudes to work. As Enright, Levy, Harris and Lapsley (1987) so skilfully demonstrated in their work on ideological bias in research literature on young people: 'societies regulate the status of youth in culturally adaptive ways, so that whether youth will be portrayed as competent to assume adult roles, or as psychologically incapacitated to warrant their exclusion from adult roles, will depend largely on the labor and economic requirements of the society in which they live' (p. 542). The transitions of school leavers to adulthood can thus be re-interpreted and programmed to fit the current policy parameters.

The educational theorists by this time had moved from 'social reconstruction' to 'social transformation', but their aspirations and visions had been shattered by economic recession. Teenage labor markets shrank, categories of employment disappeared for young people, unskilled jobs were fewer and there was a growth in part-time jobs for the young (Sweet 1974; 1981). The taken-for-granted transition to adulthood through work had been fractured and dislocation and despair faced many school leavers. No amount of educational R & D could solve problems created by economic restructuring.

The 1980s were characterised by a period of stasis and decline in the economic sphere, and the socio-political discourse shifted to 'instrumental rationalism' with concepts of 'efficiency' and 'effectiveness' replacing social visions of 'opportunity and equity' (Poole 1989). Although the discourse did include some acknowledgement of social justice, the overriding imperative was economic recovery and international competitiveness. In the USA, the nation's youth were blamed for not achieving as well as their Japanese peers (Gordon 1987); in Australia, for not being as work-oriented as their counterparts in Singapore (Poole and Cooney 1987). Just as in the days of the Sputnik scare (the 1950s) educational researchers were asked to assist the national effort in terms of enhanced performance in maths and science teaching and learning for the nation's youth. The overriding theory which patterned this period was economic theory - 'social reconstruction' and 'social transformation' had been displaced by the need for 'economic restructuring', 'economic renewal'. Education was no longer perceived as a 'social good', capable of transforming society, of providing school leavers with an opportunity for equality and mobility. The prominence given to educational research and its rhetoric during that phase of high optimism was replaced by a more narrowly instrumental view of education as a public good in terms of its contribution to national skill formation and competencies. These new patterns excluded young people from the discourse: the emphasis was on

abstractions such as the de-personalised competencies of school leavers and their marketable skills.

Certain new patterns of research are already emerging on the national and international scene in the 1990s (ASTECC 1989, 1990, 1991; Horowitz 1990). Operational patterns for research are shifting towards greater concentration and selectivity in funding and in strategic choices of substantive areas as national priorities. In addition, to underpin this shift, new structures such as networks, partnerships and collaborative research programmes, as well as co-operative research centres, have been established to position the nation's intellectual capital more strategically in the global economic sphere. I turn next to these new patterns influencing scientific research policy generally and ask: what characterises the present state and where does education stand?

The Present State: Research Concentration and Selectivity

The widespread changes taking place in the organisation of scientific research are not, as Ziman (1987) has argued in the UK 'a temporary or local phenomenon. They are part of a worldwide process in which science is being transformed internally as it moves into new relationships with national economics and politics' (p. 3). This transformation is driven, he further argues, by 'the long term forces historically associated with scientific and technological progress. These include the ever-increasing complexity and cost of:

- research techniques, apparatus and infrastructures;
- the expanding demand for interdisciplinary research on problems of national concern;
- the entry into world science of a larger number of nations - for example, Japan - and the growing influence of transnational factors in national science policies' (p. 3).

Science research activity takes an appreciable part of national budgets. Consequently, the allocation of resources to various fields of study is now according to "more utilitarian criteria", and competing research programmes have to be evaluated more rigorously for both their potential exploitability and their scientific merit ... Enforced institutional selectivity and specialisation has become necessary to provide the increasing "critical mass" of effort needed to remain competitive in any field of research' (Ziman 1987: 3). Similarly, in the USA, in a recent Office of Technology Assessment Report, *Federally Funded Research: Decisions for a Decade*, the view is put by Congress that 'the Nation now expects that in addition to knowledge, science and engineering will contribute to US prestige and competitiveness abroad, create new centres of research excellence ... (and) ... continue to provide unparalleled opportunities for education and training

(1991: 1). In this process, priorities must be set and the best researchers selected and funded. In Europe also, 'research is increasingly considered as a factor of economic productivity' (Bode 1991: 3) and funding is targetted. As Bode (p. 3) goes on to say:

One might be seriously concerned about what might be lost in this global trend of directing the funding of research toward the solution of specific practical problems. The last 200 years of basic research has established an impressive record of great innovations which were not the result of deliberate planning and which not even the respective scientists ever anticipated.

He also argues (Bode 1991: 3-4):

This scepticism, however, does not help very much, and thus our individual researchers are well advised to accommodate themselves to the emerging funding mechanism at regional, national and internal levels (see also Contzen 1991).

Many educational researchers are not happy in this new policy framework of concentration and selectivity, and the perception of research as contributing to economic renewal. Some argue that education, like the humanities, is characterised by an 'individualistic' mode of inquiry and since resource implications are less than for other sciences, the need for 'critical mass' and the 'collectivist' mode of team-research is not appropriate and indeed is antithetical to the development of research excellence. Furthermore, the whole process leads to: a devaluation of social and cultural research; the development of 'conservative exclusivity' and priority-setting 'cliques'; the erosion of flexibility as contexts change; and the discredited practice of 'picking winners' and a misunderstanding of the role of university R & D as contributing to economic development and innovation. Perhaps the prime concern, however, has been the shift away from curiosity-driven research and the re-positioning of mission-oriented research and applied research (e.g., Poole 1990), and the questioning of the teaching-research nexus (e.g., Leal 1989). There is little doubt that the tensions created by this system in the USA (Table 2) are evident in the Australian context also. While I will not discuss these at length, I table them for your consideration. (For Australia, see Clarke 1990a and 1990b; Hawke and Jones 1989; ASTEC 1989). The content is familiar: centralisation, concentration, market forces, continuity in funding, peer review, conservation vs risk-taking, research training, and career paths for researchers.

Table 2
Tensions in the Federal Research System

Centralisation of federal research planning	Pluralistic, decentralised agencies
Concentrated excellence	Regional and institutional development (to enlarge capacity)
'Market' forces (to determine the shape of the system)	Political intervention (targetted by goal, agency, programme, institution)
Continuity in funding of senior investigators	Provisions for young investigators
Peer review based allocation	Other funding decision mechanisms (agency discretion, ear-marking)
Set aside programmes (e.g., age, gender, ethnicity, geographic region)	Mainstreaming criteria in addition to scientific merit
Conservation in funding allocation	Risk taking
Perception of a 'total research budget' decisions	Reality of disaggregated funding
Dollars for facilities or training	Dollars for research projects
Large-scale, multi-year, capital-intensive, high-cost, per investigator initiatives	Individual investigator and small-term, 1-5 year projects
Training, more researchers and creating more competition for funds	Training fewer researchers and easing competition for funds
Emulating mentor's career paths	Encouraging a diversity of career paths
Relying on historic methods to build traditionally the research workforce	Broadening the participation of under-represented groups

Source: Office of Technology Assessment 1991.

Yet the idea of research concentrations is not new to the field of educational research. Indeed, ERDC, more than a decade ago provided national leadership in identifying research concentrations in areas such as: school leavers and social and demographic change. Similarly, the ACER in setting its triennial research agenda has identified themes, through consultation and invited submissions from its constituencies, to shape the direction of its research programme.

These trends notwithstanding, for many academics, notions of concentration and selectivity are threatening, necessitating choices as to what will appear in research management plans, what will attract funding within the institution and

beyond. A real threat for us is that many perceive educational research with a 'trace of scepticism' (Finn 1988: 5), and as having contributed little to the world of practice. This, coupled with its low status within universities, and an absence of advocacy by teachers or systems users, makes educational research potentially vulnerable. As Finn (1988) reminds us, we are often associated with 'educational faddism' and 'pointy-headed intellectualism'. We have not 'produced enough findings that ... [the public] can use or even see the use of' (p. 5). Such views have been roundly challenged by Shavelson and Berliner (1988) who argue that educational research and its achievements have been misunderstood by the public, including politicians.

I would like to indicate briefly the major policy assumptions and mechanisms underlying concentration and selectivity in Australia. Let me turn to concentration first (Table 3). At the national policy level, this signifies a major shift in funding research. Funds are targetted. Accountability and outcomes are important. Areas of research strength and potential are to be identified and supported through appropriate mechanisms (e.g., Key Centres, CRCs, national priorities). Institutional interpretations of such an emphasis are to be indicated through research profiles which are to include strategic choices about what is distinctive and excellent in that institution.

Table 3
Concentration and Selectivity:
Policy Assumptions and Mechanisms

Areas	National Policy	Institutional Interpretation
Concentration	- Funding - Targetting and Accountability	- Research Profile
	- Areas of Strength	- Strategic Choices
	- Areas of Potential	- Development Funds
	- Mechanisms	- RMO (Operational)
Selectivity	- Direction Setting	- Missions and Goals
	- Priority Setting	- Structural/thematic
	- Linking R & D to National Goals	- Implementation Process

The Research Management Plan has become the major statement of policy within the institution and the linchpin of operational decisions concerning the deployment of discretionary funds.

Selectivity at the national policy level is the process of strategic direction setting, and priority setting within that framework. The dominant discourse concerns the linking of R & D goals to national goals. At the institutional level, this policy is made apparent through various mission and goal statements and through the judicious and, of course, intensely political process of selecting structures and themes which will serve those missions and goals. At the same

time, various implementation processes are put in train as performance comes to be a major benchmark for the next stage of funding. Throughout this policy phase, scientific and technological research has been viewed as an important strategic consideration and the basis for restoring the national economy.

I have been talking of concentration and selectivity as a general policy framework and now turn to ask: How has educational research fared in this massive restructuring of science policy, nationally and internationally? In the USA, Guthrie (1990) has lamented education's poor positioning, stating that educational R & D has been absent from the main stage: 'Virtually no one, however ... outside of isolated school of education faculty members and a few employees of research-oriented institutions, has proclaimed a future role or made a forceful case for significantly expanding educational research and development. Education R & D has become a stealth activity, virtually invisible on the policy radar screen. Worse yet, in important ways the situation has deteriorated' (p. 26). In Australia, we have done marginally better. Policy change has meant new opportunities. Maths and science education has been put on the national agenda if only to underpin the science-technology R & D push. And now, of course, with the Finn Report (1991), school leavers are yet again a national priority, and doubtless monies will be made available relating to competencies, employment, training and career path needs.

Furthermore, the *ARC Status Report for the Humanities and Social Sciences* (1991) indicates that 'education' (including distance education) appears as an area of research priority and strength in the social sciences in the research Management Plans of 22 institutions. In addition, the budget proportion obtained by education in the social sciences component of ARC Large Grants Scheme has been rising markedly, e.g., 3.9% (1988), 4.1% (1989), 8% (1990), to 12.8% (1991) (see Table 4). Education is now the third largest group to be funded in the social sciences after psychology and economics, and was second to psychology (34.8%) in 1991 for initials with 19.0% of the budget compared with economics (15.2%) (Jarrett, Shapiro and Trevor 1991).

Table 4
ARC Funding Trends:
Education's Relative Position
(% Budget)

Field	Initials				Total			
	1988	1989	1990	1991	1988	1989	1990	1991
Psychology	50.0	50.9	36.1	34.8	59.1	55.1	52.3	40.2
Economics	20.7	20.9	25.8	15.2	20.0	18.7	22.4	21.7
Education	4.3	4.2	16.1	19.0	3.9	4.1	8.0	12.8

Source: Jarrett, Shapiro, Trevor 1991.

The explanation that Guthrie (1990) provides for the poor achievements of educational R & D and its invisibility on the 'policy radar screen' in the USA is interesting: 'Education R & D is persistently plagued by structural problems; it is starved financially, subjected to agenda fragmentation, and burdened by an outdated federal strategy' (p. 26). Furthermore, 'too little money has chased enormous research questions ... (and) ... the paucity of useful answers has contributed to a cynical disposition toward research by educational practitioners'. Any analysis for Australian educational R & D would, I suggest, contain similar arguments. Additionally, it would include the deliberate closing down of important viable structures and mechanisms, e.g., ERDC, R & D branches in state departments.

Interestingly, Guthrie (1990) alludes to subtle shifts occurring within the research community itself, which I suggest are also occurring in Australia (including the field of education): 'Of course, individual researchers are free to pursue interests of their own, and many do. However, the weight of the scientific community is concentrating on topics thought by its colleagues, and to some degree by the American political system, to be of significance in advancing a research field, serving the public welfare, or both' (p. 28). He points to a process where funds follow national scientific or technological issues or crises as they have in Australia, e.g., toxic waste disposal, AIDS research, global warming. He argues that 'education has few national agenda-setting mechanisms and even fewer conduits for funnelling federal funds towards high-level public policy education research priorities' (p. 28). Yet, in Australia, we are better positioned and currently have two such high priority areas - maths and science education, and youth employment and skilling, linked to a strong national technology push. Ironically, I would argue, it was not the educational research community which positioned us so well in the current climate - but rather FASTS, ASTEC, and the Finn Committee which included no member of the AVCC, no professor of education, and no active educational researcher.

So now that we are on the policy radar screen, the key question becomes: can we as educational researchers strategically position ourselves for the benefit of our field as a whole?

Strategic Positioning: Strategies and Advocacy

It is not only that educational researchers have to find a place in this new context, they also have to make up for past handicaps. As Gerald Piel (1978) publisher of the *Scientific American* wrote more than a decade ago: 'In the pecking order of academia, pure research out-ranks applied. Research into education must fall, therefore, into the second or lower class. Not a discipline in its own right ... education research is the object of the attention of the established disciplines: psychology in all its varieties, sociology, anthropology, demography, statistics, and, nowadays, economics. Because our universities are departmentalised by

discipline and the scholar's career in each department turns on contribution to its parochial interests, it is not surprising that much education research is addressed to the archivist of the disciplines and not to the improvement of education' (p. 8). Indeed, since that time, applied research has come to be more highly valued - but not, alas, in the humanities and social sciences. Furthermore, although the Smith Committee stressed that there was a pressing national need for a strong resource base in *all* disciplines the implementation of the claw-back policy has meant a major shift of resources away from humanities and the social sciences to research concentrations in science and technology. So, whither educational research in the Unified National System when its theories interconnect uncomfortably with the discipline-based departments; when its own generated theories are often removed from educational practice; when there is little public advocacy for educational R & D; and when new funding possibilities emanating from industry and commercial linkages are not easily available to the educational research community?

How, then, to position ourselves and re-gain some tactical advantage in what appears to be a difficult, even disheartening, context? In 1979, when I presented my AARE Presidential Address 'Challenges Facing Educational Researchers in the 1980s', I saw four major issues confronting educational researchers in the decade ahead. In retrospect I marvel at the prescience of my predictions, especially those concerning 'constraints on choice' for individual researchers and the tensions between accountability and autonomy, the move towards setting research priorities and the consequent funding implications, and the pressures to cut back faculties of education and departments. Twelve years later, I shift my positioned stance from 'forecast' to 'advocacy'. To strategically position ourselves and the field of educational research in the next decade I believe we must be active in five *vital* areas:

Table 5
Strategic Positioning

1	We must increase our presence in the field of <i>public policy</i> .
2	We must recognise that education, in the current corporatist culture, is itself <i>big business</i> , and that educational researchers in their diversity have an enormous range of skills, knowledge and expertise.
3	We must build research programmes for the <i>long-term</i> .
4	We must <i>end</i> the fruitless and what Gage (1989) called the <i>destructive 'paradigm wars'</i> that have bedevilled educational research.
5	We must participate in <i>priority setting at the national level</i> .

- (1) We must *increase our presence in the field of public policy*. As Piel (1978) indicated 'civil servants and politicians have learned to prize social studies as supplying persuasive and authoritative validation of public policy and decision' (p. 9). We must not make the mistake again of promising too much and delivering too little, but we must make

significant input into the major policy debates in the country concerning education. What can be different this time is our capacity to relate research, development and practice (see Glaser and Russell 1987: 30). Furthermore, there is an increasing awareness given to the contribution that the social sciences and humanities can make to current economic and social imperatives (ASTEC 1991: 13).

- (2) We must *recognise that education, in the current corporatist culture, is itself 'big business', and that educational researchers in their diversity have an enormous range of skills, knowledge and expertise* which can contribute to business, industry and international competitiveness (Poole 1990as). The maths, science, and technology focus provides, yet again, an opportunity for us to get it right and to enable our young people to be scientifically and technically competent when they leave school. At the same time we can begin to win back some of the public regard we have lost.
- (3) We must *build research programmes for the long-term*. In many ways educational researchers have been engaged in what Blackler (1988) calls 'cherry picking' - 'cherries are techniques and applications that can be used to produce quick returns. While such an approach has its uses, focus is, of necessity, limited to small-scale, short-term benefits'. As Blackler (1988) goes on to argue: 'While social scientists who are interested in practical matters may have to pick cherries some of the time, it is important that they should not confuse cherry picking with the development of long-term scientific and policy objectives' (p. 113). In educational research we need to build an on-going base of systematic, programmatic research. This would strengthen our financial base as educational researchers and ensure continuity.
- (4) We must *end the fruitless and what Gage (1989) called the destructive 'paradigm wars'* that have bedevilled educational research, *viz. the objective-quantitative, interpretative-qualitative and critical-theoretical*. These have, he declared, been discipline wars within the field. He argues for 'the triumph of pragmatic resolutions and rapprochement' by the year 2009, with the dawning of the realisation, that, if the social sciences do not get together, they will perish. Educational research must be part of that pragmatic resolution (see also Nisbet 1990). Similarly, Guthrie (1990) showed how 'politicisation and internecine competition for scarce federal funds drew an unproductive wedge between the larger educational research community and the [R & D] centers and laboratories'.
- (5) *We must participate in priority setting at the national level*. To position the educational research community strongly for at least the decade ahead, we must agree to an agenda of national priorities within the field of educational research, and to some process of differentiated networking within those areas nationally (Poole 1990a; McShane and Walton 1990). *The ARC Fifteen Years Forward Strategy for Education* will be a focus for

debating that agenda. The move to establish a small number of social policy research centres funded through a competitive programme analogous to that for the Co-operative Research Centres could provide a mechanism for a network (ASTEC 1991: 13). We must also have input into ASTEC similar to that of our colleagues in The Australian Psychological Society, for example, who have provided strong advocacy for their discipline by stating that 'at the level of national direction-setting there should be a commitment to the full range of disciplines involved in research and there should be a commitment to strengthening the continuum of basic and applied research' (McConkey 1991: 2). We also need to utilise our international networks to better effect in this process. The ASTEC Report *Setting Directions for Australian Research* (1990) talks of 'strategic scanning' where scholars in Japan and Sweden are engaged in undertaking overseas state-of-the-art analyses as part of an 'intelligence gathering' exercise which then feeds back into the national system of R & D (see also *Research Foresight: Priority-setting in Science*, Martin and Irvine 1989). Not long ago, I was in Japan presenting a state-of-the-art paper on 'Funding for Educational Research in Australia' (Poole 1990b) together with scholars from sixteen other countries participating in a 'think-tank' on *The Impact of Research on Educational Reform*. The Japanese by hosting such an exercise could readily tap into international policy directions. Might we begin to do this ourselves? Such a strategy would be consistent with the 'growing trend of internationalisation in research' and the government's belief that higher education systems must take part in 'internationalisation of research and research training so as to achieve the greatest benefits for Australia' (Baldwin 1991: 36).

Conclusion

I have sketched something of the changing patterns of educational research, especially in relation to school leavers. I have also indicated how these patterns are inextricably enmeshed in a particular economic and social context which not only facilitates or constrains the development of the educational research enterprise, but also influences the theoretical discourse and the modes of operation of those in the research enterprise. I have also outlined the current national and international policy framework within which we, as educational researchers, will have to operate, whatever our misgivings with regard to concentration and selectivity.

My advocacy is for us, as educational researchers, to move to achieve a more strategic positioning for our field of study. As Partridge (1962: 54) argued long ago:

... it is not reassuring that in this country it is the government which seems to be setting the pace, and not scholars and thinkers within the universities themselves.

So, for us, the challenge remains. My reflections on the patterning and positioning of educational research over some twenty years lead me, despite my dislike of dichotomies, to sum up the present position with the powerful words of Dickens:

It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us ...
(*A Tale of Two Cities: Recalled to Life*).

It was, in effect, 'so far like the present period' that one can only marvel at the changing and recurring patterns in the lives of educational researchers and our resilience and endurance. My address, dedicated to Radford, can only conclude with an admonition to the educational research community to be 'recalled to new life', and to come to terms with the current twin policy citadels - research concentration and selectivity.

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