

## *Developing Public Understanding of Education - a role for educational researchers*

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**WYNNE HARLEN**, *Director, Scottish Council for Research in Education*

I am proud to become the president of this Association, of which I have been a member since its foundation, but at the same time realise the impossibility of living up to the ideals and hopes of what might be achieved in this position. How nice it would be to preside over a revival of confidence in and esteem for educational research, to see the Association become a voice to be listened to and a force to be reckoned with. Such aspirations are not to be realised in the near future and to think otherwise would be to guarantee a deep sense of failure. Nonetheless I don't regard such thinking as idle; it is essential if we are to take up the challenge that Caroline Gipps gave us at the end of her presidential address last year that:

if being marginal to policy-making and the popular press is a phase that we must continue to endure for at least another 5 years then we must use this period, not to stagnate or give up, but to think, to rethink, to develop, to understand the policy process, to support each other and the schools and teachers with whom we work. (Gipps, 1993)

In more than one respect I am continuing today from where Caroline has brought us, picking up not only the cloak of office but the thread of this idea of self-evaluation and of identifying the role that BERA should be preparing itself for taking. I could not emulate the penetrating analysis of the state of affairs afflicting professional educators that Caroline presented to us last year, nor would I wish to try. One reason is because it would have to be to some extent repetitive, for whilst the details and the actors have changed, most of the themes are much the same, save for those which are now finely balanced on the Dearing knife-edge (Dearing, 1993). Another is because this is the state of affairs in English education to which for the past 3 years I have been an outsider.

In these circumstances it doesn't seem fair either to join in the wringing of hands nor to gloat at being in what is currently characterised as a better system in Scotland. Therefore I intend to break with what seems to have become a convention of BERA presidents, of beginning by deploring the present state of the English education scene.

Neither, as I said, do I intend to harangue you with the virtues of Scottish approaches to education and educational research. We all know that it is fascinating and useful to make comparisons but that we cannot simply translocate aspects of one system to another. The fact that fellow researchers in Scotland have not felt the same sense of hopelessness which colleagues in England have experienced (although we share the problems of conducting research in postmodern times) arises from a complex set of circumstances rooted in history, cultural tradition, social values and, not least, in the size of the country and its particular political imbalance between central and local government. So I am not going to hold up Scottish education as a shining example (Indeed there are many who deplore recent changes

in the curriculum and assessment as marking the end of collaborative decision-making [Hartley, 1990]), but at the same time this experience should not be ignored in seeking ideas about how the problems in the rest of the United Kingdom might be tackled and I will be making some reference to Scottish experience.

What I intend is to use this address to consider what we, as members of a professional association, could and should be doing at this time. There are some hard questions we should ask ourselves: has educational research moved in pace with the rapidly changing scene? Have we tried to maintain a *status quo* as we would like it whilst the world around us has changed? For instance, are we complaining too loudly about wanting to do fundamental and long-term research when what is needed is a quick reaction from research to policy changes? Have we tried hard enough to communicate with decision-makers, not just policy-makers, but the new decision-makers - parents, public, lay-inspectors, school governors and board members? Do we have ourselves to blame, at least in part, for becoming marginalised? Hard questions, indeed, and by asking them I do not mean that I necessarily agree with the implied underlying sentiments and criticisms, but I am sure that they must be addressed. At the same time we need to recognise what we are doing well and what we should persist with come what may, how we justify this in terms of the purposes of research and what counts as quality in research.

My framework for discussing these points has emerged, perhaps surprisingly, with some thoughts about the common ground of research in the natural sciences and the social sciences. Noting the recognised need for public understanding across all sciences leads me to suggest more attention to this in relation to education. Then, from consideration of the particular relevance of this to educational researchers I suggest a role for BERA in increasing public understanding of education.

### **Research in the Social and Natural Sciences**

Educational research suffers, as does other social science research at the present time, as it always has, from severe underfunding by comparison with research in the natural sciences (ALSISS, 1993). Despite this I believe the differences between research in these two areas will in the future be seen as much smaller than has been the case in the past. The distinction with regard to subject matter will, of course, remain, with social sciences aiming to understand people and natural science aiming to understand the world around. It is in relation to methodologies and the nature of the knowledge generated that the gap is closing.

In terms of methodology, consider how much has been developed in educational research alone since the days in the 1960s when some of us tried to put into practice, and recognised the failure of applying, the controlled experimental methods which then dominated the educational research method texts and were derived from natural science.

Across the whole range of the social sciences there have been created and refined a wide variety of methods for handling the complexity of factors which must be taken into account if we are to generate understanding of people and their interactions. But the natural sciences, too, have found that real world problems are too complex for the classical experimental method to handle; understanding is more likely to come from computer modelling of the various interacting forces, which might be mechanical, electrical, chemical, etc. in nature. The concept of fuzzy logic has been developed to approach the reality of continuously

changing systems. In these kinds of ways, natural science, at its frontiers, is outgrowing the independently changeable variables approach and turning to methods already familiar in research in economics and education. Yet there remains a considerable divide between researchers in these areas. In universities there is astonishing ignorance among scientists of the research methods in education - and probably vice versa. I believe that if we can correct this it will serve not only the advance of knowledge in both spheres, but also the enhancement of the status of educational research within higher education institutions.

In relation to epistemology, too, those at the forefront in natural science and the social sciences share a common view of new knowledge, as being the best current hypothesis which is always open to change (elegantly restated by Hawking, 1988). Thus science is no longer to be characterised as being objective, capable of yielding ultimate truths, 'proving' things, having a defined and unique subject matter, having unique methods and being value free. Instead science is now recognised as a *human* activity which:

- seeks to advance understanding of the world around;
- depends on human judgement;
- is a social enterprise;
- builds upon previous knowledge and understanding;
- uses a wide range of methods of enquiry;
- produces understanding which is tentative and always open to challenge by further evidence;
- is constrained by values; and
- is subject to social determination of the acceptability of its conclusions.

Of course there are many dyed-in-the-wool scientists who don't think this way (which is why I was careful to refer to those 'at the frontiers') but the future is not on their side. Meanwhile we must guard against the same assumptions about educational research. We have to recognise it for what it is; to see it as a way of generating understanding and knowledge yielding ideas and theories which are accepted for as long as they help our understanding of evidence, but which are constantly superseded and changed when new evidence is obtained which conflicts with them. There is no end to this process; no ultimate truth or understanding of either education or of the scientific aspects of the world around.

### **The Need for Public Understanding**

I would like to pursue this parallel thinking about natural science and educational research just a little further because it brings me to an important conclusion. Lack of understanding of the nature of scientific knowledge, of its epistemological status, and of its broad principles means that it is often inappropriately used by those who know a little. You only have to point to the dreadful mess we are making of the physical environment to realise that applying scientific ideas to serve particular ends without understanding the broader concepts of the interrelatedness of the factors which affect human life, or without caring about their effects, can be disastrous. Scientists and technologists are rightly concerned by misconceptions and misuse of rapid developments in their fields which are affecting every part of life on Earth. Science (and technology) educators are convinced that the only sound way to avoid global environmental disaster is through education aimed at the development of a scientifically and technologically literate population. They are not at the stage of being definite about what this

means nor how to bring it about, but at least they have initiated a great deal of thinking and hopefully sparked off some action. A recent forum for this initiative was an international conference in Paris which I and several science colleagues attended. The conference was sponsored by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) but, significantly, instigated by science education associations and it would not have happened without impetus from the education profession, particularly from those active in research.

The emerging theme of that conference was that the scientifically and technologically literate person is one who, without detailed knowledge of the branches of science, understands the connections among them, who uses science and technology in an ethical manner, who has acquired the habits of mind of science, or the ability to see the world through the eyes of science (Rutherford, 1993). Such a person, it is suggested, knows less science but understands more, as a result of being taught in a manner that creates links between classroom knowledge and the world outside, that promotes interdisciplinary knowledge and that emphasises the implications and applications of science for society and the natural environment on which life depends. Although it is not my reason for referring to this, it is ironic to note the contrast between these aspirations of educators, shared worldwide, and the directions in which trends in education policy over the last 5 years seem to be taking us. However, the main reason for mentioning scientific and technological literacy is to draw a parallel in relation to public understanding about education.

Everyone has some knowledge of education from their own experience, but in most cases they do not have understanding of the larger concepts and their interrelatedness. If we have a general public and politicians who have only this narrow personal knowledge, we can make as much of a mess of education as we are making of the environment. We have several examples of this in the documents which have appeared this year. What about the naive advice given by the National Curriculum Council (NCC) to the Secretary of State: "If the curriculum cannot be covered in the time available, then one solution is to increase the amount of time available for teaching" (NCC, 1993), although the document does recognise that a law of diminishing returns will apply! Another example from the same source is the dubbing of existing practices in schools as 'over-complex'. These are just those practices of topic and group work which are intended to help pupils learn with understanding and to make links between one part of knowledge and another, practices which, if we lose sight of them, we shall have to rediscover in order to create the broadly educated society that we must have.

More importantly, these statements leave out the whole issue of what education we want and what is the best way to achieve it. If we do want citizens who can think analytically and creatively and make decisions for themselves, solve problems and take part in a truly democratic and ethical society, then we cannot avoid recognising that we need highly qualified, professional and autonomous teachers. Consequently matters of teaching time, teaching methods and teacher education are linked to what we value as a society. We need policies made by people who understand these matters, people who are 'educationally literate' in the same way that they should be scientifically literate. An example of a person who is educationally literate is Ron Dearing. With no background as a professional educator, his review of the National Curriculum and assessment shows many of the qualities we would like to see more widely shared by government at Westminster, including awareness of complexity, rejection of quick solutions and recognition of the need for research to inform policy.

The phrase 'educational literacy' is, of course, dangerous and wide open to misunderstanding. I hope it doesn't catch on! The notion of adding adjectives to the word 'literacy' to create a whole series of concepts-cultural, computer, scientific, social, functional, etc. was hotly debated at a Council of Europe meeting of educational researchers in 1990, particularly by Richard Hoggart, a keynote speaker who pointed out the danger in literacy being interpreted in the narrow sense, as a technical matter; he wanted to adopt the term 'critical literacy' to avoid this (Hoggart, 1990). However, I believe the term literacy in these ways is a useful metaphor and leads us to think of an educated person in importantly different ways.

Whilst I do not intend to try to define 'educational literacy', some indicators of the aspects that would characterise an educationally literate person are necessary as a basis for discussion. Such a person would:

- grasp the basic nature of concepts of education, such as assessment, curriculum, learning, teaching;
- understand the relationships between these concepts and therefore the implications of national policies in education;
- recognise the values-based choices that have to be made in education;
- promote and use education in an ethical manner; and
- recognise that methods and goals of education must be reviewed and developed to suit the ever-changing needs of society and of individuals within society.

A person with these qualities would not only be able to engage responsibly in debates on educational issues but would be in a better position to understand the possibilities and limitations of research in education.

It is not just the politicians and the general public who lack that understanding but, so it seems, many of our fellow educators. For example, I'm sure that many of you, like me, will be recipients of letters from students, typically final year BEd students engaged on a dissertation, asking questions which they should be able to answer by a visit to their library: can I tell them the A to Z about research on their chosen topic (primary school science, in my case)? This is irritating enough but what is saddening is the naïve view of education and of educational research that is displayed in the studies they are planning to undertake. A further depressing example was an article given prominence in the *Independent* newspaper (2 September) written by a secondary teacher of English proclaiming that "Three R's and a bit of common sense" is all that is needed for teaching infants.

### **Some Characteristics of the Educationally Literate**

I would like to expand a little on one or two of the aspects that I have offered, as starters only, which would characterise an educationally literate person. The grasp of basic concepts is probably the most important because, in common with most disciplines, our currency is words and we are short-changed if they are not given their full value. The point is not about knowing the dictionary definition of the words but the meaning, in the context of education, of the concepts they convey. They are the 'big ideas' of education but conveyed through words that are used in everyday parlance in a variety of ways. Take *assessment*: I usually define this as 'a process of gathering information about a feature of performance and comparing it with some standard, criterion or base-line in order to make a judgement about it'. This is a professional definition but what is important for everyone using or affected by

assessment in education to grasp is not the details of definition but some general ideas, particularly about the trade-off between accuracy and meaning in assessment and the match of methods to purpose.

In more detail what this means is that an assessment of any use is inherently inaccurate and best regarded as an estimate. How close an estimate it will be depends on several factors but in general, and to overstate the point, anything that can be assessed with a high degree of reliability probably isn't worth assessing anyway. Even to measure my height reliably you would need to make several measurements, not only at one time but at several times during the day (since I have reached the age of declining stature!) and this diurnal variation calls into question what *is* my height anyway if it is changing all the time. But if you want to assess how good an educational researcher I am you would require very much more data and there is far more uncertainty about what is being assessed and how good an estimate the result is. I'm not really interested in how tall I am-and neither is anyone else-but both I and others could be more interested in how good a researcher I am and this is an almost impossible assessment to make with any accuracy. Yet, I suggest, what we try to do in assessing pupils is as complex as the latter but we pretend it is as straightforward as the former.

Practitioners involved in assessing pupils for certain purposes, such as certification, need to know the technicalities of how to make the results more accurate, or at least fair, and how and when moderating instruments and procedures should be used. But detailed knowledge of these things is not needed to grasp the basic principle that we can never be 'accurate' and so should interpret an assessment as an estimate. Indeed, in some circumstances, particularly for young children, our estimate of their achievement can be no better than our estimate of their height judged by eye as they run across the playground. You can tell the taller ones from the shorter ones this way, but you wouldn't use the information to fit a new pair of jeans and neither should we use it to fit them to highly dubious 'levels'. Teachers know full well that children may not retain the skills and knowledge that they display on a particular occasion when assessed (Webb, 1993) and that they sometimes fail to show in a test situation what they can do at other times.

It might just take the heat out of the national assessment debate if we could accept assessment of achievement as just indicating 'where the child seems to be' in the development of skills, ideas and attitudes, rather than anything more definite. More relevant for the general public than the arguments about criterion and norm-referencing is to realise why assessment cannot be accurate in the context of children's learning, because the children are learning and changing. More useful still would be the understanding of the different purposes of assessment, how the methods used should match these purposes and that 'accuracy' (taken to mean reliability) is not the only concern. The purpose of national assessment was originally stated as, and remains, to be able to report children's progress and to take action where progress is not being made (Department of Education and Science/Welsh Office [DES/WO], 1987, para. 28). It should be understood by parents and politicians that for this purpose validity has a high priority and that a reasonable estimate on all relevant aspects of learning is more appropriate than a more precise estimate of just the few aspects for which assessment can be made more 'accurate'. This is no more than common sense. Where we choose to use assessment for other purposes, such as end of course certification, attention to a close and fair estimate has a higher priority, but it will be valueless if it does not reflect the skills and knowledge which are the aims of the course. Again this is only rational and should lead us to

accept, for example, in General Certificate of Secondary Education (GCSE) assessment, whatever balance of teacher assessment and external examinations meets these criteria.

*Learning* is another concept of which there are many misunderstandings. The educationally literate person is not necessarily the one who thinks (s)he knows what learning is nor indeed the one who can expound the details of *x* theories of learning, but one who realises that there are different views of this complex matter and that these views change as more becomes known through study of learning. He or she will distinguish between rote learning and learning with understanding and be aware that current views give more significance to the active role of the learner than did earlier ones. Further, and importantly, there will be the realisation that learning is not solely a product of experience in school but of other influences at home, from the media, from the street. If the word 'learning' has these connotations we might have the foundation for a society which shares the responsibility for educating the young and does not blame teachers wholly for unsocial behaviour which they have little power to influence. The issues of school effectiveness and 'value-added' need to be considered from this perspective.

*Curriculum* is also a word for which common understanding is lacking. In the past this did not matter but the word has been brought into everyday use through the National Curriculum. Disagreement about its meaning is widespread within as well as without the educational community. Before the curriculum became a set of documents, it was vaguely a set of experiences pupils had at school which influenced their learning. Has the notion of curriculum changed since the word has become married to 'national'? When the idea of a national curriculum was proposed (DES/WO, 1987) it was described in quite familiar terms, as something which "equips them [pupils] with the knowledge, skills and understanding that they need for adult life and employment". Words and phrases such as 'entitlement', 'broad and balanced', 'equal opportunities' were familiar from existing documents and even "setting clear objectives for what children ... should be able to achieve" "the national curriculum is intended to help teachers to set their expectations at a realistic but challenging level for each child ..." seemed reasonable. They were not out of line with the notion of curriculum and the idea of a national statement seemed helpful in ensuring opportunities for all. Moreover we were promised that:

Within the programmes of study teachers will be free to determine the detail of what should be taught in order to ensure that pupils achieve appropriate levels of attainment. How teaching is organised and the teaching approaches used will be also for schools to determine. (DES/WO, 1987)

It was this promise above all else that persuaded many teachers and others in the profession to accept the idea of a national curriculum. The notion has changed considerably since that idea has been transformed into the actuality of the National Curriculum. What we now have is not what we thought we agreed to but far more prescriptive. Many teachers feel far from "free to determine the detail of what should be taught" and the National Curriculum Council (NCC) recommended at the beginning of this year that:

Urgent progress is needed in:

- promoting different approaches to curriculum organisation and classroom management including more focused approaches to topic work, greater use of subject

teaching with increased emphasis on subject teachers at Key Stage 2, and setting of pupils according to ability where this is practicable. (NCC, 1993, para. 6.1)

This hardly seems like fulfilling the promise that "how teaching is organised and the teaching approaches used will be ... for schools to determine". However, to return to my point about the meaning of the concept of curriculum, there seems some urgency to come to an understanding about its bounds now that it has entered public vocabulary.

References have already been made to the importance of understanding the *interconnectedness* of educational concepts. Much government policy seems to have ignored this and to have considered only one face of the multidimensional whole of education. For example:

- proposals about teaching methods have been made which consider only how to cover the content of the curriculum even though these methods operate against the development of important cognitive skills;
- assessment methods which could assist the process of learning and the development of professional skills of teachers have been devalued or replaced by traditional ones which promote traditional aims in learning;
- each part of the National Curriculum has been developed without regard for the rest,
- both in quantity and substance, thus defeating even its own ends. Webb's recent study of the National Curriculum at Key Stage 2 reports that teaching has become a scramble to meet statutory requirements and achieve curriculum coverage (Webb, 1993).

The stress of multiple innovations has been forced on schools by politicians who have failed to see the three dimensional whole of which 'local management of schools', 'grant maintained status', 'teacher appraisal', 'assessment', 'reporting', 'standards of performance', etc. are merely facets. Each has been considered from such close quarters that nothing else is in view, without standing back to consider the possible combined effect, which can be devastating, particularly for headteachers of small schools.

Being educationally literate means recognising the relationship between the whole and the parts and thus being able to evaluate proposed changes in policy and practice with this relationship in mind. It would also mean, for those making policy, that needs in one area caused by proposed changes in another can be anticipated and developments put in place to support them; changes planned and co-ordinated, not implemented piecemeal.

Although I said that I would not quote Scottish practice as a shining example, I think it is useful in this context to look at the current arrangements for national testing in Scotland. If these work-and we don't know this yet-it will be because of *other* measures which have (and in some cases haven't) been taken. The arrangements are that pupils throughout the 7 years of primary school and the first 2 of secondary school take non-statutory national tests in reading, writing and mathematics at each of the five levels when their teachers' own assessment indicates that they are ready to do so. This approach places a heavy burden on teachers' assessment, which is the only form of assessment for the rest of the curriculum, and one of the measures being taken to support this is the development of materials to give teachers help in diagnostic assessment procedures. Perhaps more politically significant measures, however, are that: (i) the curriculum is non-statutory, giving teachers genuine flexibility for curriculum planning at the school level, which is supported by considerable in-



service training and materials provided both at national and local levels; (ii) the national tests are not used for creating league tables; and that in fact (iii) the results are not collected centrally at all. Furthermore the national monitoring of performance by the Assessment of Achievement Programme (the AAP, equivalent to the Assessment of Performance Unit [APU]) continues to operate, thus removing any argument that national test data should be collated and used for the purpose of monitoring national standards.

These circumstances combine to produce a situation in which national test material is freely available to schools by ordering from a catalogue. The tests need not be kept secret because it serves no one's interests to misuse them by 'coaching'. The tests "provide teachers with the means to check their own assessments and should ensure more consistent interpretation by teachers of what particular levels of attainment mean" (Scottish Office Education Department [SOED], 1992). The test arrangements were not, as we know, in this form from the start. They began as voluntary tests, but the boycott of pilot trials resulted in statutory requirement being activated in 1990 and the test material was intended to be used in something more like the end of key stage tests in the rest of the United Kingdom. One of the factors effective in bringing about the change to the present arrangements may well have been that parents and teachers were better informed of the issues and confident enough in their understanding to take action. And how did they become better informed? Not least because people like Sally Brown made the effort to talk to parent and teacher groups and published their views in the press. At the same time, unless there had also existed the combination of factors which supported the change and allowed deregulation-the continued existence of the AAP and the development of help in formative assessment-the change may not have been contemplated.

I do not propose to work through all the items on my list of aspects of educational literacy since it is only intended to be indicative. However I don't want to leave it without drawing attention to the importance of the context of *values and ethics*. What we value often has to be the deciding factor in making educational decisions because we are faced with incompatible claims. Take choice of schools. Education-or at least attendance at school-is something every child must have; schools and pupils have to match, with none left over. Were all schools the same then it would matter not to which a child went. But they are not the same and are perceived not to be the same and thus some pupils will get what is perceived as being 'better' than others. Is this defensible? If so, on what grounds should it be decided which pupils go to which school? Do we need to compensate those who draw the short straw? If it is not defensible, should we try to make all schools the same? Would this be right in a heterogeneous, multicultural society? How are equal opportunities to be provided? I don't know the answers to these questions and I know few who would claim to. It is the recognition of their existence which is important. Decisions in government and in the ballot box have to take them into account and there will inevitably be compromises. By not ignoring the issues we can hope to ensure that these compromises do not disadvantage certain groups.

### **Relevance to Educational Researchers**

Why address these matters to BERA, to an educational research association. Surely, it might be thought, they are matters for all educationists? Indeed, that is true, but there is no other body whose business is explicitly-and I quote Lawrence Stenhouse-systematic activity that is directed towards providing knowledge or adding to the understanding of existing knowledge,

which is of relevance for improving the effectiveness of education" (Stenhouse, 1981). Our purpose is to develop or extend understanding of the major issues of education. We may do this by studying a particular part of it, empirically or otherwise, but all the time we are adding to the broader understanding. We read and relate to others' ideas, try to build on them and offer the product to our colleagues in writing or in conferences such as this. We are in a unique position, privy sometimes to insights and information known only to ourselves from which we generate advances in understanding; we extend our own educational literacy. We are, therefore, the ones who can, by sharing this understanding, help to create a wider educational literacy. Stenhouse's more succinct definition of educational research, as "systematic activity made public" (Stenhouse, 1984) should be adapted to suggest a more active role. Should we not be more than merely *providers* of knowledge but rather *promoters* of knowledge? And should we not take his use of the word 'public' to mean not only our peers but the general public, those who are making choices about their own and others' children's education?

Sir Ron Dearing met a unanimous response in schools to many of the questions he asked about the curriculum and assessment. He was impressed by this; it could not be ignored and to some extent made his task easier. Why was there such a strong, consistent response? Partly because things had become so bad. It would be good to think that it was also because teachers were well informed about issues, potential implications and available alternatives. But had that been the case it would surely not have taken so long and the situation would not have been allowed to reach such a sorry state and cost so much to so many good teachers. We, as educational researchers, who *did* realise the issues and implications, have some responsibility for this. We must endeavour not to let it happen again in relation to the curriculum and assessment and to prevent it happening in other areas, for example, teacher education. We won't change anything quickly but progress depends on making even small steps in the direction we want to go. I know that many members are already doing a great deal to try to spread understanding about education but there are some things we might do more of, for example:

(i) Writing and publishing from a research standpoint to explain issues where our studies have put us in a position to comment on the validity of arguments put forward and claims made. To point out in straightforward terms where there is evidence to support the claims and where there is not and where there is research evidence from which likely consequences of certain actions might be predicted and should be considered. We could start with the easy audience, teachers and other professional educators who may not be familiar with the research and with the full range of factors which should be taken into account. We can reach them by writing in the journals and newspapers they read, both those devoted to education and others. If we are successful then we will also have begun to reach the wider audience, of parents and general public who read some of the same publications. I know that many researchers feel that the press is biased against research in education and won't publish our articles. I suspect that many more of us have failed to try than have tried and failed.

(ii) We need to do more to reach the policy-makers, although they will be aware of what is published in the press. Somehow we must create opportunities where we can to discuss, in a non-confrontational manner, what research is saying that is relevant to their policy decisions. There is, no doubt, a considerable gulf between us. Only a few weeks ago it would have seemed hopelessly naive to entertain the hope that anything could be done. But

since then we have felt less chill in the wind from Westminster which may signal an opportunity, which we should seize, to try to talk with those most likely to listen.

(iii) We should leave no opportunity unexploited to make an input into policy. We have already done much in making inputs into the work of the National Commission and the Dearing Review and submissions to political parties' papers on education, when invited. We simply must do more, as an association, for the more we do the more we shall develop a high profile and the more productive each effort will be. Publishing our responses to consultation and reviews is a good way of meeting my first suggestion.

(iv) We should run more conferences for a variety of audiences, some for teachers based on their needs at a particular time and possibly in collaboration with professional or teacher associations. We should also include conferences on methodology for scientific researchers to help bridge the divide between 'them' and 'us' that I mentioned earlier. Maybe we should make more use of the annual conference of the British Association for the Advancement of Science (social and natural), which serves as an interface with the public as well as with fellow professionals-or run mini-events of the same kind specifically for education.

(v) We can help each other by sharing our experience and expertise and thereby raise the level of quality of research activity in the United Kingdom. This suggests workshops on development of methods of study, of data collection and of analysis, on reporting and publication, on communicating with the press. What has been done in this area has proved very popular and successful; but we need more.

### **The Role of BERA**

Some changes in structure are required if BERA is to be able to do more of these things. There has been talk of setting up a structure of divisions. The problem with divisions, or special interest groups, arises from the wholeness of education and the interconnections between its aspects that I have argued earlier as being so important. Whether they are divisions along the lines of stages of education or components such as curriculum, boundaries are created between things which should not be separated. On the other hand a structure of divisions may have the advantage of helping us in communication and collaboration with associations beyond our shores, particularly in Europe. This is a dimension of BERA's future that I have not time to do more than touch upon in passing but do wish to acknowledge as being important.

At the present time what seems more urgent than divisions is to develop our existing Policy Task Groups (PTGs) as a formal structure to take forward the aspect of our work relating to increasing public understanding. For 4 years we have had PTGs which have done and are doing a very good job and have produced several publications. (Anyone who is unaware of the activities of the present groups, which are on Assessment, Local Management of Schools, Teacher Education, Curriculum, Adult Education and Primary Education, has the opportunity to find out here as each is presenting a symposium at the conference.) It seems a good time to review their role and the nature of their tasks in relation to BERA's aims. The present position with regard to the possibility of influencing decisions about the National Curriculum and assessment should sharpen our thinking on this matter. Currently there is an invitation to offer suggestions on the ten-level scale, on how the curriculum might be slimmed down, on how vertical and horizontal continuity might be attained, to mention a few. Will our PTGs on

assessment, the curriculum and the primary curriculum be responding to this opportunity? I think they should. And what about other matters? For example, do we need a PTG on 'value-added', one to look at the special concerns at Key Stage 4? In my view PTGs are for quick reaction; therefore they should have a small core of people with the expertise, ideas and background experience needed to develop understanding and arguments based on research in relation to the group's focus. Chief among a group's activities might be: informing the rest of us, through meetings, conference symposia, as now, and through publications; setting up meetings with policy-makers; writing short, researcher-based, policy-oriented papers (such as the National Commission Briefing Papers) for wide discussion; and writing articles for the press and teachers' journals.

PTGs may find it helpful to have, in addition to the core, a larger group of corresponding members concerned with their particular field, but I believe that the core should be small and committed to being active. Any group of BERA members can make a proposal to the Executive Council to set up a PTG. The proposal should state its aims and rationale and a programme of work which should include the above activities. BERA's policy is to provide a small sum to cover some expenses but this is by no means enough and, like all BERA's activities, our employing institutions are expected to regard our involvement as part of their contribution to research. However, I believe that BERA should back activities which are particularly important in serving its aims as an association where these are particularly costly and are not themselves fund-raising. Issues rise and fall and PTGs should come and go. Some may be very short-lived; others longer-term.

### **Raising the Quality of Research**

Exposing educational research to a wider scrutiny, and to audiences wary and sceptical of the value of research is risky. We have to be sure of our ground and able to defend the quality of our work. This is why earlier I mentioned self-evaluation. In all fields there is good research and poor research. Poor research in the natural sciences, for instance, is not necessarily flawed in methodology, although this is an obvious reason for weakness; it can also be research that is trivial, needlessly repetitive, duplicating effort, limited in insights offered, research that asks questions to which it knows answers can be found rather than the most important questions, that takes a problem out of its context so that very little knowledge of value is obtained. If these seem familiar criticisms then I have made a further point about the similarities of research in the natural and social sciences. Any example of 'poor' research is bound to be invidious, but I thought the following (reported in the *Independent* at the beginning of August) was a reasonable illustration of unnecessary research:

Thommen, Reith and Steffen at the University of Geneva report a six year study of how men and women carry books. Under their supervision, 70 observers recorded 2602 adults carrying books and documents. Previous studies had identified five positions for carrying books: cradled in one arm against the front of the torso; in two arms in front of the torso; held at the side gripped from on top with arm straight; at the side gripped from below with arm straight. The first two had been identified as characteristically female, the others as male. The Geneva study found that whereas men have always carried books in the same way, Swiss women in the late 1980s differed significantly from American women in 1978. In New York, El Salvador and Costa Rica, less than 20% of

women were observed carrying books at their sides in 1989 whilst in Geneva a decade later, it was up to between 43% and 60%. In all cases the figure for men was around 95%. (Gender-related book carrying behaviour: a re-examination, *Perceptual and Motor Skills*, April, 1993)

There are particular problems in education, where flaws in methodology can arise at all points, and we have to be especially meticulous in the matter of interpretation of data and in quantitative treatments of essentially qualitative data. BERA is in a good position to take the lead in defining quality in educational research, just as it has in other matters, notably the ethical guidelines, and might set up a short-term Working Group on Quality. A view of quality would need to go far beyond methodology in order to capture the special nature of *educational* research. It would incorporate our ethical guidelines and recognise the responsibility we have for interfering in the situations we study. It should also, to my mind, embrace the notion of advancing 'educational literacy.' It is not my intention at this point to anticipate the debate, but I would emphasise that such a debate should not be of what is ideal, taking us away from the somewhat painful reality of the context of educational research today, but rather would help us to get at the heart of the role of research in today's education. Like all such statements, it will need to be regularly revised and updated, as today becomes yesterday.

Finally, my belief is that some self-evaluation will increase our self-confidence. However discouraged we may feel at present by the reception of our work in recent years, what we do is essential and, whether politicians like it or not, it will have its effect, especially if we extend our efforts to communicate with those who are affected by education at all levels, respond to consultation invitations, seek face to face opportunities to talk to those who have influence, and above all support each other. If our work did not exist, would the Department for Education now be funding research on value-added indicators for the evaluation of schools? Would the National Curriculum and assessment have been reviewed without the publication of our research findings and the reflective papers we have written? Would we know as much as we do about the nature of learning and what makes teaching effective? We *are* having an effect and we must continue to do research and good research and, as an association, take responsibility for establishing and maintaining standards of high quality in our endeavours.

To discharge our duty to bring the findings of educational research into the public arena demands much effort and courage, particularly when this may mean questioning the right of sponsors to prevent publication. What I have suggested in laying a foundation of public understanding of education will in the short term require even more effort, but could lead to a more informed context for our work in the future and help us to achieve our aims of improving education for all.

*Correspondence:* Wynne Harlen, British Educational Research Association, c/o Scottish Council for Research in Education, 15 St John Street, Edinburgh EH8 8JR, United Kingdom.

#### NOTE

Presidential address given by Wynne Harlen at the nineteenth annual conference of the British Educational Research Association held in Liverpool, Saturday 11 September 1993.

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