THE SERA LECTURE 2005
LEARNING FROM EACH OTHER: INTERNATIONAL PERSPECTIVES ON RESEARCH COMMUNITIES

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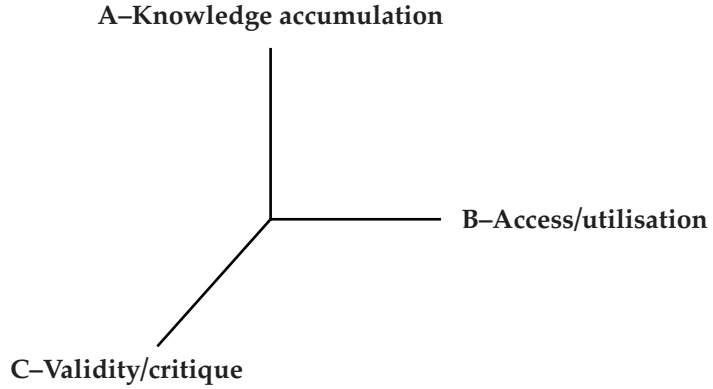
INTRODUCTION: KNOWLEDGE SOCIETIES

I'm sure that most members of SERA think of themselves as belonging to a community. Quite what that means is another matter – though it's almost certainly better than belonging to a tribe, for which Wikipedia provides the following definition: "a small mobile and fluid formation with weak leadership, generating no surpluses, paying not taxes and not supporting a standing army". I'm not going to go down the definitional road in this lecture, but it would be probably be fruitful to reflect on what we feel are the binding elements of a research community: to what extent are they defined by institution, by discipline, by topic/field, by friendships or by language? The answer in any one case will in all probability be some combination of these.

In any event it's a great pleasure to rejoin the Scottish research community, however briefly. My aim in this lecture is to offer some reflections from my current position as head of a small international policy research unit which seeks actively to promote its links with research communities in OECD countries and beyond. The reflections are primarily quite general, but I draw on some specific CERI activities which have generated insights into the challenges that face researchers who seek benefit from membership of a research community. The activities I refer to here include a set of reviews of national policies on educational research and development; a series of events focussing on the nature of evidence-based policy research; and a rather unusual activity which links current neuroscientific research with educational policy (see www.oecd.org/edu/ceri for detail of our activities generally).

Let me first locate the discussion in a rather simple framework, which is designed to help us think about the nature of knowledge societies.

Figure 1



The first axis refers to the explosion of 'knowledge' — facts, opinions, information, wisdom — which characterises modern societies, powered by the expansion of education systems but most prolifically by new information technologies and the world wide web. No one needs me to enlarge on the scale of this explosion. Most of

us are active contributors, as well as more or less eager consumers. We are certainly piling the knowledge high; usually we sell it cheap too, or even give it away.

The second axis raises questions about who has access to this knowledge. This is not just a representation of the so-called digital divide, with its concern for the skewed distribution of access to the new technologies which make so much knowledge almost instantly available. It is also about the distribution of the capacity to benefit from such access where it exists. How has formal access developed, and who has effective access, are two very different questions, as Amartya Sen so memorably points out in his discussion of capabilities (Sen, 1992; see also Szreter, 2000, for an historical perspective). So it is not a technology question, but one about capacity and skills in the broad sense.

The third axis is the one of most interest, especially when we are considering the nature of research communities. You will probably already have picked up a certain ambiguity in the terms I have used earlier, alternating between knowledge, information, opinion and so on. The point here is that we are in increasing need of systems which help us sort through the ocean of information bites which hover behind our computer screens. This is both an efficiency and a quality argument. Without good systems for finding our way through, we will be drowned in this ocean; and without trustworthy systems for discriminating between items of different levels of quality, and for combining them into meaningful wholes, the sheer volume of available information will be irrelevant.

'Trustworthy' may for some of you make a link to the literature on social capital, and this is deliberate on my part (see eg. Field, 2005, Ch.3). The networks which make up social capital are precisely those which we need to carry out most effectively these functions of validation and critique (Schuller, 2006). If we cannot draw on network (or, if you prefer, community) members to help us find our way through the jungle, and also to help us reach informed judgements on the quality of the information available, we are in difficulty. Solo high-skilled access to information sources around the world is rarely going to be enough. We need personal and professional colleagues to help us manage the knowledge challenge. So a first question might be: how far do our research communities help us do that?

In short, a 'knowledge society' (if that is a useful phrase, which I sometimes doubt) is obviously not only concerned with the accumulation of information, but with the distribution of access to it, the capacity to transform information into knowledge or even wisdom. But it is above all characterised by a generalised capacity to sift valid information from invalid, to identify misinformation and to make reliable judgements on what counts as truth. This is a collective as well as individual capacity.

These are in a sense truisms, which no one could reasonably contest. However I fear that they nonetheless need articulating, and their implications confronting. The title of Francis Wheen's book, How mumbo-jumbo conquered the world (Wheen, 2004), may suggest a jokey compendium of misinformation ploys ('Hilarious' is the Jeremy Paxman accolade on the cover). I believe, however, that it also has a deeply serious message about the threat to enlightenment standards and credos. Knowing that only 11% of Americans subscribe to the standard scientific account of evolution is frightening; and the number of creationists is growing in the UK and elsewhere. Political leaders use astrology to guide them in their decisions. And, before we get too smug about academic rationality, the Alain Sokal hoax on critical theory showed how gobbledygook can penetrate deeply into the fabric of academic discourse (Sokal, 1999). There is a mounting case that basic enlightenment values are under threat, in ways that make much of the postmodernist critiques look dangerously irrelevant.

EDUCATIONAL REVIEWS

I shall return to the networks in a moment. Let me first present some very broad conclusions from the four reviews we have carried out of educational R&D: in New

Zealand, England (*sic*), Mexico and Denmark (OECD, 2003). (A fifth, in Switzerland, is currently under way.) A brief description of how these reviews work might be useful, since I have found that OECD procedures are not only opaque to some but also generate some rather alarming misconceptions.

First, the invitation to conduct a review comes from the country, and without such an invitation a review could not proceed. OECD cannot and would not wish to strongarm a country into being reviewed. The focus of the review is jointly agreed. The OECD appoints a small team of three or four experts to make up the reviewing team. The experts are identified in consultation with the country, and should comprise a range of origins and expertises – for instance, combining an experienced policy-maker from continental Europe with an academic from the US or Scandinavia. The country then prepares a background report. It chooses how this is done, and may do it in-house or contract it out. The background report is not likely to produce a swingeing indictment of the system, but it must be robust enough to stand up to external scrutiny, since it is published along with the examiners' report.

A schedule for the review team's visit is prepared, in consultation with the OECD secretariat. The selection of people to see can be contentious. Since the team generally spends only a week or so in the country, the number of people it can meet is limited, and inevitably some bodies or individuals feel excluded. (Some exclude themselves, for example on the grounds that the process is illegitimate or that they do not regard the kinds of research under consideration as genuine research.) The visit itself is intensive. Typically the reviewers formulate views as they go along and try them out on succeeding interviewees. Further information is sought from the country as the review proceeds and issues crop up. Individuals from the country submit analyses or other inputs for the team's consideration. Initial conclusions are drafted as the visit progresses. One member of the team acts as the main author, working with the OECD secretariat person responsible for the review.

The examiners finalise their draft report and submit it to the country for comment. The country can correct factual points and offer a view on other matters, but cannot unilaterally change the conclusions. The report is then presented to members of the CERI Governing Board (who are representatives of the OECD member countries) and subsequently published, or made available on the web.

Such is the process. It is a systematic accumulation and analysis of information but not itself research in the traditional sense. The focus and the content of the examination are influenced but far from controlled by the host country. The experts are there in their own right and not beholden to anyone, but would hardly undertake the exercise if they did not broadly subscribe to the value of what OECD does in the educational sphere. The discussions are largely consensual. The implementation of the recommendations is left to the country.

The broad conclusions from these reviews may set a few hackles rising. The first one, however, was that levels of investment in educational research are relatively low – relatively, in two sense. First, they are low relative to the overall expenditure on education. In almost every OECD country very significant proportions of GDP are spent on education; the range is from over 7% in Iceland to just under 4% in Turkey, with an OECD average of 6.1% (OECD 2005, Chart B2.1). But the amount spent on developing a knowledge base for understanding the effects and effectiveness of all this money is small. Secondly, it is small relative to other comparable services, notably health. Roughly speaking (and it is rough, but the overall message is clear) the proportion of health expenditure spent on research in health amounts to between six and ten times the equivalent proportion spent on research in education. Of course some of this is attributable to the amounts spent on pharmaceutical development, for which there is no educational equivalent (or at least not yet – though the neuroscientific developments I refer to below include increasing interest in performance-enhancing drugs), but the disparity is striking.

So there is a prima facie case for a substantial increase in spending on educational research. So far I'm probably making myself no enemies. But the other overall conclusions were to do with low capacity and competence in the educational research communities, and generally weak links between educational research and both policy and practice. (These are, I should stress, generalisations across the countries and do not all hold good for all four countries, let alone for all OECD countries; for example, Danish educational research is arguably quite well linked to classroom practice, though not to policy.)

The recommendations which came with the examiners' reports varied according to the countries, but common elements can be identified. First, there should be some reflection on how balanced the educational portfolio is. 'Balance' covers a number of dimensions: between basic and applied; across disciplines and topics; by method; and so on. The point was not that there is a single ideal balance, but that often there seemed to be large gaps in the portfolio which needed to be addressed, whilst researchers clustered in particular areas (a natural tendency, given that lead researchers will bring followers in their slipstream).

Secondly, the examiners were generally concerned about how far the knowledge generated by research is systematically accumulated, so that it adds up; research is only repeated where this is needed; and people (inside and outside the research community) can see patterns emerging and be confident about what has been firmly established. A knowledge base which commands broad assent amongst the research community and which is readily accessible is an essential asset.

Thirdly, dissemination was often weak, with research results ineffectively communicated to different audiences; to other researchers, but also to policy-makers and practitioners. There is no implication that all the responsibility for this lies with the research community.

Fourthly, there was low capacity in research methods and this needs to be addressed. The examiners referred specifically to a lack of quantitative skills, and the inability to exploit existing datasets, but not to these alone. I have more to say about this in the section on evidence-based research issues below.

Such are our overall conclusions, arrived at on the basis described above. The individual reports are naturally given a variety of receptions, ranging from hostile denials of their legitimacy to reasonably enthusiastic; the most interesting ones, as with other CERI outputs, are those which use the findings to move the debate on, without necessarily accepting them in their totality. A key aspect in the context of this lecture is the peer learning which goes on, as countries seek to learn from each other.

EVIDENCE-BASED POLICY RESEARCH

Overlapping with these reviews has been a series of events under the heading of 'evidence-based policy research'. These have set out to explore different views on what counts as evidence in educational research, especially policy-related research, and what factors determine the effectiveness of such research. There is no need here to go into detail on the events or the activity, but a central feature of the discussions has been the exploration of relationships amongst the various stakeholders, and this is very germane to the topic of research communities.

The stakeholders in this case are those with an interest in the relationship between research and policy. We selected as primary stakeholders (in addition to researchers) policy-makers, practitioners, the media, institutional leaders, parents and students; but the choice could be wider and different. The point here is that the relationships which make up the network can all be usefully explored, both as a straight analytical exercise and with the practical goal of developing better practice; and this approach can be applied equally to the relationships which exist within research communities and between them and others.

Again a social capital perspective is helpful, in that it focuses attention on relationships and how they should be analysed (network analysis is of course nothing new, but the Policy Research Initiative in Canada is a good example of policy-related thinking on this approach [PRI 2005]). One could assess, in whatever degree of seriousness and detail, the quality of each of the relationships in terms of the following:

- trust levels
- information flows
- power-hierarchy.

Done systematically this could yield some very illuminating pictures of our research communities; even simple personal reflection would probably be quite fruitful.

I want, though, to extend the application of social capital theory to our theme, through the fairly familiar concepts of bridging and bonding (Woolcock, 1998). Bonding social capital refers to links with relatively homogeneous others (for instance, one assumes, within SERA); bridging to the links made with relatively heterogeneous others. Neither is inherently preferable; both have their strengths, and their weaknesses. In one sense, bridging and bonding are wholly context-dependent: even within a highly bonded SERA, there may be sufficient heterogeneity for some bridging to be desirable. But we can at least suggest that the exploration of bridging social capital might be a way of invigorating our research community (or communities), and of extending its influence on the intellectual as well as political climate.

What kinds of bridges might be in order? Here is a definitely non-exhaustive and progressively more arbitrary list of groups with which education researchers do or might connect. As with the set of stakeholders listed above, the relationships with each group can be examined from different angles and with different kinds of evidence. My underlying argument, though, is that we need to understand these relationships better, and at least for some to reach conclusions about how they might be improved.

a. Practitioners, ie. teachers, lecturers, all those involved in the direct delivery of educational services. This is the most obvious of links, though of course it does not imply that all research should have direct application to practice. The question of how the relationships between research and practice are fashioned and improved is an open one. There seems to me to be quite strong indications that the Scottish research community has made particular efforts to construct these bridges, and build trust between themselves and practitioners.

b. Policy-makers. Again, there is no implication that all or most research should have policy application, at least in direct form. One issue here is identifying what constitutes a policy-maker, given the number of levels of decision-making which exist within an education system. It is important that the research-policy link is not conceived of in simplistic fashion, ie that research results feed into a linear decision-making process. An understanding of how policy questions are framed, and the appropriate kinds of evidence which are accepted as relevant, is highly important.

c. Researchers from outside the academic system. Private sector or national or international think-tank staff are increasingly significant figures, with rather different approaches to the design and delivery of research. I offer the view that there is much to be gained from understanding different approaches to the research business – not so much in terms of methodologies (though this is an urgent need in itself) but in the way questions are formulated and conclusions delivered. I emphasise that this is not to say that academic researchers should necessarily

become more like these others; merely that links with them may generate ideas and partnerships, on the substantive as well as the technical front.

d. Economists. This is a highly personal view, which in part — but only in part — reflects my current location. Of course there are already economists of education, but not many of them. I am not necessarily persuaded that a proliferation of economists would be an undiluted good (apart from everything else they could expect it to bring their price down). Yet much of the current preoccupation with evidence-based policy is driven by the perception that Treasury rules, and Treasury listens to economic arguments. That these arguments are not always broad in their coverage, or adequately engineered, is all the more reason for the education research community to seek stronger links with the dismal discipline. Broadening the assumptions on which the returns to education are analysed, and including within them the wider social and cultural outcomes, is a major task.

e. Health researchers. I include these for two reasons. First, health does have many parallels with education as a service, and there is much to be learnt (critically, of course) from its approach to research – including, dare I say it, the possibility of experimental design. Secondly, though, the interaction between education and health (physical and mental) is particularly strong, though the causal directions are not always clear (Feinstein and Hammond, 2004). The intellectual and applied challenges of mapping and analysing these interactions seem to me exhilarating as well as important.

f. Neuroscientists. Finally, a suggestion from our CERI programme, where my colleague Bruno della Chiesa has been working for about six years to build networks which bring together leading-edge neuroscientific researchers and education researchers (OECD, 2002). He and we have learnt many lessons, some of them fascinating, some painful. The dialogue involves issues of a technical, social, ethical and political nature, which there is no space to explore here. Here are just three reasons why the education research community might learn from throwing out lines to neuroscience. New diagnostic techniques will uncover, or even 'create', as yet poorly discerned disabilities (eg dyscalculia), as well as offering new lines of treatment; both will present educational challenges. Secondly, neuroscience is showing how extended is the period of adolescence, with executive function maturity generally not reached until the mid-twenties: what are the implications of this for our school and college systems and the timing of educational opportunity? Finally, and also addressing the shape of lifecycle opportunity, the proven plasticity of the brain is hopeful in the indications it gives of our continuing capacity to learn, but it raises enormous questions about what the educational responses should be to demographic trends.

To repeat: I am not suggesting that bridging links to these different communities do not already exist, nor that they are necessarily the most important. I am suggesting that in addition to strengthening the bonds which bind our research communities together we seek external connections which can inject new ideas and give us cause for reflection on our current practices. I do not underestimate the difficulties which this poses.

STRENGTHENING RESEARCH COMMUNITIES

To conclude, here are some questions around which research communities might be built or strengthened, if they can be addressed in a critical, trusting and information-generous fashion.

a. What outstanding positive examples do we have of rationality? This apparently absurd question is a way of recapitulating the discussion on mumbo-jumbo, and

the need to reaffirm our collective belief in the power of reasoning in the face of deep irrationalities. In so far as I have any expectations I would expect answers of a rather applied kind, rather than of abstract philosophy. But I would certainly not exclude the latter. I would like to add a particular rider to this: rationality entails being clear about questions as well as evidence and conclusions, and my perception is that educational research is too rarely clear about the questions, let alone the answers.

b. What are the priority areas for capacity-building? I do not mean only, or even primarily technical areas such as high-grade quantitative skills, though these are undeniably in short supply in educational research. There are at least two other dimensions to this question. First is the capacity of other stakeholders to understand the research process in all its extensive untidiness. This includes the capacity of policy-makers to empathise with the research process, and to qualify (though definitely not abandon) their requests for unambiguous conclusions. Second, though, is the capacity of researchers espousing different research modes to understand each other and work with each other – not so much in united multidisciplinary projects, optimal though those might be, but in an iterative fashion, examining, testing and building on each others' work (in what Hideaki Koizumi depicts as a transdisciplinary spiral [Koizumi, 1999]).

c. Which areas of educational research are generally recognised as exciting and cutting-edge? This is not, I recognise, a question likely to generate instant consensus. But whilst vigorous disagreement within a research community is generally healthy as well as inevitable, it strikes me as sad if there is no recognition of a few areas or research teams where the frontiers are really being explored; sad in the sense that it diminishes the community's sense of identity. I merely pose the question here of where educational research stands in this regard.

d. What is the value-added of international and comparative research? I return to my opening. I have offered these views from the perspective of someone now involved in this field in a policy rather than academic context. Naturally I believe that this has some utility to people in the OECD member countries, and hopefully beyond. But despite some dawning scholarly interest in international organisations that deal in educational research (eg Martens, 2005; Robertson, 2005) there is room for much more reflection on what research communities generally feel that they derive from comparative work. This would certainly be an area where research evidence would be eagerly consumed in my own small community.

NOTE

1 Tom Schuller is head of the Centre for Educational Research and Innovation at the OECD. The views in this lecture are personal and do not necessarily represent those of the OECD.

2 At the SERA conference itself I was able to hear more than one account of the way these links are being forged, with practitioner-researchers emerging as significant players.

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