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Strategic Forum for Research in Education

Unlocking Learning?

Towards Evidence-informed
Policy and Practice in Education

Final report of the UK Strategic Forum
for Research in Education, **2008–2010**

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Preface

This report is based on a review of the outcomes from discussions at meetings of SFRE involving researchers, policy makers, practitioners and representatives of practitioner organisations held in Harrogate, Reading and Edinburgh during 2008-10 (see www.sfre.ac.uk).

In reflecting on these overall for the production of this report, we analysed and developed further an OECD CERI model for evaluating provision within particular OECD countries for generating and applying evidence in education (see Pollard, 2007). Versions of this had been previously used in assessing research provision in Denmark and Switzerland. The new SFRE version proposes six elements which might be identified within an effective national system for 'knowledge development and mobilization'.

We then wrote a textual review of each of the six elements within this new model, drawing on the records of discussions at SFRE. Finally, we made judgements to produce a set of recommendations in respect of each element.

Before finalisation within this report, these judgements and the text overall were subject to comment and review at a SFRE Validation Meeting and by critical friends from the academic, policy-making and practitioner communities. We are grateful for this advice and have tried to take it into account. However, final responsibility for this text remains with its authors.

Andrew Pollard and Alis Oancea
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Acknowledgements

Pollard, A. and Oancea, A. (2010) Unlocking Learning? Towards Evidence-informed Policy and Practice in Education. Report of the UK Strategic Forum for Research in Education, 2008-2010. SFRE: London.

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Unlocking Learning? Towards Evidence-informed Policy and Practice in Education

Andrew Pollard and Alis Oancea (2010) – (www.sfre.ac.uk)

Executive summary

In complex, open democracies, such as those of England, Northern Ireland, Scotland and Wales, there is a constant need for evidence to inform public discussion and decision-making by practitioners, managers, civil servants and politicians associated with education services. In societies with rich traditions of learning we also need to unlock the potential and to create more opportunities for learning to flourish.

SFRE extended an OECD CERI service of providing external 'Country Reviews' of educational research and development. It did this by structuring and facilitating processes of internal self-assessment and knowledge exchange within and between each UK country.

This report builds on the considerable amount of high quality research, practice and provision in education which exists in the UK – but it also accepts the provisional nature of evidence-informed knowledge and the complexity of decision-making in the field. It is firmly committed to working from this base towards more holistic effectiveness for each country and the UK as a whole. Complexity and diversity are seen as strengths within the devolved democracies of the UK and within the multiple layers of each educational sector and its research-user audiences.

Commitment, expertise and energy were very evident from representatives of the wide range of educational organisations contributing to SFRE. And yet it was apparent that the exchange and use of knowledge is constrained by the bonds of sectors, disciplines, roles and national jurisdictions. In short, too much knowledge about education in the UK is locked away. Often, this is caused by the boundaries of professional activity, with researchers, practitioners and policy-makers working in relative isolation from each other – but it is also about the accessiblity of information which should be in the public domain. A major theme of the report is thus to affirm existing initiatives and resources and to suggest that effort should be focused on adding value and improving their overall effectiveness.

In particular, we draw attention to a fundamental enabling condition – the public availability of core information about research and evidence on education. At present, such services are not well configured and the issue, we believe, merits particular attention at this time. To support cost-effective sustainability and improve services to users, the consolidation of some key information resources is suggested.

This final report of SFRE 2008-10 is structured by a model representing six elements in the development and mobilisation of knowledge in education. Attempting to clarify these elements of comprehensive knowledge development and mobilisation systems is a major output from SFRE and will, it is hoped, enable organisations to review their roles and maximise complementarity and value for the system as a whole. SFRE's six element representation of knowledge development and mobilisation, and its associated recommendations for contemporary UK systems, are:

Origination and planning – including the conditions and provision for the facilitation and prioritisation of research activity.
1. Governments and their agencies in each UK country should aim to support both responsive and prioritised research, recognising their complementarities in achieving both innovation and quality.
2. Strategic thinking about applied research should consider UK provision for long-term research on enduring issues as an effective way of providing evidence on immediate priorities, as well as enabling more sustained scientific development.
3. In establishing research priorities, there should be greater liaison between funders and stakeholders to improve the effectiveness and legitimacy of decisions.

Creation and production – focusing on both the initiation and carrying out of projects in respect of each major type of research.

4. Stakeholders in each country should regularly review provision for each of the major types of research in each key sector within their education systems and should consider the conditions which enable or constrain their development.

5. Collaboration among educational researchers in different areas and types of research should be encouraged, together with sustainable initiatives and incentives to promote more multi-disciplinary and inter-disciplinary research and methodological innovation.

6. The active promotion of user engagement in applied research should continue.

7. Developmental and evaluative research should be used in proportionate ways for piloting, cost-benefit analysis, decision-making, review and measuring value in respect of major investments.

8. Practitioner enquiry should be an integral, long-term part of provision for professional development and knowledge creation in all educational sectors.

Assessment and validation – including peer judgement, user and beneficiary validation and the processes, criteria and indicators specific to each assessment context and type of research.

9. Criteria applied in the assessment of research quality should be appropriate for the research approach under consideration.

10. Work should continue on how to better align public aspirations for the relevance of applied research and academic criteria for its assessment and validation.

11. Producers of published research which is not subject to peer-review should provide sufficient methodological detail to enable critical assessment and validation of the work.

Collection and interpretation – concerning issues such as the processing of new knowledge in libraries and databases, empirical review and theoretical synthesis.

12. Those responsible for major UK-wide resources for the collection of evidence about education should be encouraged to explore consolidation to provide a sustainable, cost-effective, comprehensive, publicly accessible and user-orientated 'UK Education Research Information Service'.

13. In relation to knowledge interpretation and review, the value and complementary roles of academic scholarship and of synthesising organisations should be affirmed and incentivised where appropriate.

14. The aspiration to establish a single, centralised evidence organisation for education, comparable to NICE and offering recommendations for policy and practice, should be regarded as a step too far.

Mediation and brokerage – addressing the multifaceted promotional and communication strategies which enable the supply of and demand for evidence to be bridged.

15. The value, and limitations, of specialist research mediators and brokerage agencies should be recognised, particularly in relation to targeted sectoral or other audiences in each country.

16. A comprehensive map of the UK information landscape should be created to increase the accessibility of brokerage organisations and mediated research resources.

17. Universities, academics and other producers of research should make explicit provision for effective communication and mediation of findings as an integral part of their work.

Use and impact – considering the ways in which knowledge is used, scaled up and takes effect within policy and practice.

18. The expectation that those producing high quality applied research, development and evaluation should seek to maximise impact should be endorsed.

19. Practical and cultural barriers to the achievement of greater use and impact should progressively be tackled.

20. Systematic assessment of research impact should be approached with great care, bearing in mind the multiplicity of factors which can affect outcomes.

Introduction

In developed countries across the world, the role of evidence is now recognised in informing public discussion and decision-making by practitioners, managers and politicians associated with education. This however, is not a straightforward process as CfBT's recent report makes clear in documenting the generally weak and variable influence of evidence over 40 years of policy-making in England (Perry, Amadeo, Fletcher and Walker, 2010). The nature and circumstances of political judgement obviously plays a crucial role here. But to stop there would be far too easy.

The present report derives from a three year initiative focused on the way educational research is generated and made available for application, as well as on its actual use. The UK Strategic Forum for Research in Education (SFRE) was thus underpinned by the view that systems for the provision and use of knowledge about education within any country can both be conceptualised as an object of study and are amenable to review, strategic decision and improvement in effectiveness.

This view had been promoted in a European Commission Staff Working Document (European Commission, 2007 a) and, most significantly, was illustrated in the gradual development by OECD CERI of a template for reviewing education research infrastructures in different countries. From 2000 to 2006, external teams of visiting 'examiners' collaborated in the production of OECD CERI Country Reviews of research and development systems in education.[1] These initiatives were designed to: 'review the extent to which the educational R&D system within a country is functioning as a repository of knowledge on which practitioners and policy-makers can draw'. Country Reviews were carried out in New Zealand, England, Mexico, Denmark and Switzerland.

The main question posed by the Country Reviews thus concerned the effectiveness of each national system in the production and use of educational research. This overarching issue and its associated structure of topics also framed SFRE deliberations.

However, in SFRE, the evaluation was designed to be internal and participative and the process was managed as one of self-review over time. Each of the three SFRE events organised from 2008 to 2010 was thus intended to be enabling, so that those attending from practice, policy and research communities could share perspectives whilst maintaining a common sense of purpose.

Attendees at SFRE came from across our UK education system, as Appendix 1 shows. They brought not only knowledge and expertise from a wide range of organisations and settings, but also enthusiasm and interest. There was a 'buzz' at SFRE meetings which, we think, can be attributed to the boundary-crossing which was intrinsic to the exercise. For too long, practitioners, policy-makers, researchers and research mediators have been trapped in seemingly parallel worlds, peering at each other from afar. This relative isolation is deepened by sectoral, disciplinary and national boundaries. Such specialist roles and institutional arrangements offer cultural security and even career and institutional progression – but the cost in unrealised potential, we believe, is heavy.

Our experience of SFRE suggests that much knowledge about education in the UK is locked away. Some of the richest and most authentic sources can be found in classrooms, lecture theatres and workshops, but is trapped by lack of shared analytic frameworks and language for public discourse. Many more perceptive, challenging and innovative analyses

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[1] See www.oecd.org/document/39/0,3343,en_2649
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are embedded in academic practices, from which they struggle to break free in accessible and timely ways. For many years, teacher education institutions have tried to bridge these worlds – often hampered, rather than enabled, by national policy frameworks which have also been trapped within a particular set of imperatives. More recently, as the rhetoric of evidence-informed improvement has swept the world, new brokerage agencies have emerged to try to ameliorate the situation, and they too must take the risks of attempting to cross the no-man's-land between theory, practice and policy.

We need to unlock our collective potential – to provide increased public access to existing knowledge about education and to improve the conditions which enable new learning about educational policies and practices to flourish.

SFRE was thus an exercise in improving awareness of interconnections and considering overall systemic effectiveness, whilst also learning about and affirming a very wide range of initiatives, provision and expertise from across the UK.

This report is founded on a realist and open position. It accepts the provisionality of research evidence and the complexity of decision-making within UK education. And yet it is firmly committed to working from this base and building on this diversity towards more holistic effectiveness for each country and the UK as a whole. Complexity and diversity are seen as strengths within the devolved and sophisticated democracies of the UK and within the complex multi-layered intricacies of each educational sector and its research-user audiences.

Consideration of outcomes at SFRE suggests that attempts to impose centralised order on this complexity would be counterproductive. However, to improve services to users and to support cost-effective sustainability, consideration of the consolidation of some existing information resources is suggested in this report. Indeed, the main proposition is that, because of the difficult economic situation, effort should be focused on adding value and improving the overall effectiveness of existing initiatives and resources.

It is not anticipated that such processes of consolidation and development would necessarily be linear or quick. Rather, evolution may take many years. For this reason, the work of SFRE may in future need to be replicated or taken up again by leading stakeholders.

The report begins by describing the specific aims and activities of SFRE. In Section II, a brief review of contemporary provision within England, Northern Ireland, Scotland and Wales is provided. Section III describes the model of knowledge development and mobilisation which has evolved from SFRE and highlights major associated issues which arose in discussion. Recommendations for action are also offered. The final part of the report reviews cross-cutting issues and draws conclusions.

This report will be shared with stakeholders in each UK country and with organisations concerned with the UK as a whole. Whilst each country is distinct, the educational issues faced have much in common and there are experiences to share about the development and use of evidence. There may even be economies of effort and added value in sharing some resources.

Section I. The activities of SFRE

I.1. SFRE aims and organisation

The SFRE was established to support multiple stakeholders in all four countries of the UK and many educational sectors in reflecting on education research. Underpinning this endeavour is the sustained contemporary demand for high quality research evidence about education from government, public services, students, parents, businesses and others.

The SFRE aims:
- In the light of international good practice, to maintain an overview of the UK system and national sub-systems for the production of new knowledge in education and for its transformation, dissemination and use as a whole.

- To facilitate networking for the exchange of information and the sharing of good practice concerning the organisation, production and use of educational research within the UK.

- To make recommendations for processes and infrastructure needed to address the long-term sustainability, development and improvement of educational research within the UK, including the identification of research priorities and of particular initiatives and investments to address such concerns.

The initiative was led by the British Educational Research Association (BERA) and the Economic and Social Research Council (ESRC), with funding being provided by BERA, ESRC, DCSF (Department for Children, Schools and Families, England) and CfBT Education Trust. The initial cycle of SFRE activity consisted of three national Forum events, addressing key issues in relation to the creation, accumulation, interpretation, valuing, mediation and impact of different types of education research. Detailed reports emerging from each of these events were widely distributed and also made available on the Forum's website.

SFRE has been managed by a Planning Group which oversaw the running of the project and provided expert advice and input to each of the three Forum events forming the initial cycle. The Planning Group was chaired by Andrew Pollard, Director of the TLRP (Teaching and Learning Research Programme) based in London. Membership of the Planning Group was drawn from all areas of the UK with representatives of government and academic communities, as well as of the core funding organisations of SFRE. The 2010 members of the planning group were:

Chair: Andrew Pollard (Teaching and Learning Research Programme/Institute of Education, University of London)
Wales: Sue Davies (Trinity College, Carmarthen/ BERA Council) and Debbie Tynen, Strategy Unit (Department for Children, Education, Lifelong Learning and Skills, Welsh Assembly Government)
Scotland: Lorna Hamilton (University of Edinburgh) and Fiona Fraser, Principal Researcher (Analytical Services Unit (schools), Scottish Government)
Northern Ireland: Ruth Leitch (Queen's University Belfast/ BERA Council) and Karen McCullough (Department of Education, Northern Ireland)
England: Deborah Wilson (Department for Children, Schools and Families), Stephen Witt (Department for Children, Schools and Families), Richard Bartholomew (Department for Children, Schools and Families) and Sean Hayes, Head of Information, Research & Statistics (Greenwich Children's Services, Greenwich Council)
UK: Andy Gibbs, Head of the Economy, Education, Business and Society Team (Economic and Social Research Council), Ann Jeffcott, Research Directorate (Economic and Social Research Council), Helen Perkins, Director (Society for Research into Higher Education) and Karen Whitby, Research Manager (CfBT Education Trust)
Researcher: Alis Oancea (University of Oxford/ BERA Council)
Project Manager: Jeremy Hoad, Chief Executive (BERA).

The three major meetings of SFRE were each chaired and facilitated by Andrew Pollard. In preparing for and reporting on these, Sarah Tough led as SFRE Researcher for the Harrogate and Reading meetings. Alis Oancea fulfilled this role for the third meeting in Edinburgh.

1.2. SFRE principles

The activity of the SFRE from 2008 to 2010 was supported by a set of principles, which guided decisions about the topics covered at SFRE meetings, the questions asked, the contributions invited and the structure, participation and ways of working of the events organised. These aspects of the activity of the SFRE were open to input from any of the constituencies involved and feedback was regularly sought and acted upon. In particular, it was made clear to participants that the conceptual frameworks and modes of working proposed, drawing on available literature, aimed to facilitate dialogue and cooperation among participants, rather than assuming consensus or attempting to rigidly structure interactions or outcomes.

Some of the principles underpinning the work of the SFRE were epistemological, others, operational. They were articulated more fully over time as they benefited from the collective experience of the three events organised. At the heart of these principles is an argument for recognising the importance, diversity and provisionality of research knowledge about education, while investing in opportunities for constructive deliberation about this knowledge via open dialogue and cooperative initiatives involving a wide range of stakeholders.

1) Commitment to evidence-informed improvement
The provision of evidence and understanding about educational processes and performance can make a significant contribution to democratic deliberations about an education system, to its effectiveness in achieving outcomes for learners and to its accountability. In principle, it is always possible to make improvements in both quality and cost-effectiveness, and this was certainly apparent from the sequence of SFRE events.

2) The diversity of sources of evidence
The evidence available to decision-makers comes from many sources, including evidence from different types of research, but also policy-maker and practitioner experience, learner interpretations, public perceptions and social norms. There are diverse ways of seeking and integrating this evidence, as well as logically different ways of explaining and interpreting it. It is important to recognize the different contributions of different types of research and to facilitate conversations that draw appropriately on the strengths of each.

3) The nature of social scientific knowledge
Our knowledge about the social world grows through challenge and criticism. Social researchers seek and refine the best evidence available to tackle important questions, but we need to recognise that evidence is not the same as unquestionable proof. The relative provisionality of knowledge about education can be seen as both a limitation (e.g. very few straightforward and definitive answers to problems) and a strength (e.g. requiring more open and ethical ways of working and ensuring constant quality checks). Effective management of evidence should start with realistic expectations.

4) The constructive exercise of judgement
Reasonable decision-making, be it in the context of policy or of practice, needs to weigh and balance available sources of evidence and types of explanation and interpretation. This deliberative process has a strong ethical dimension and should allow for different voices to be heard, different interest communities to be represented and different perspectives to be taken into account. The full range of types of research can contribute to this process and should be drawn upon as required by the questions being asked and the goals pursued. SFRE's way of working was also underpinned by this commitment to constructive deliberation.
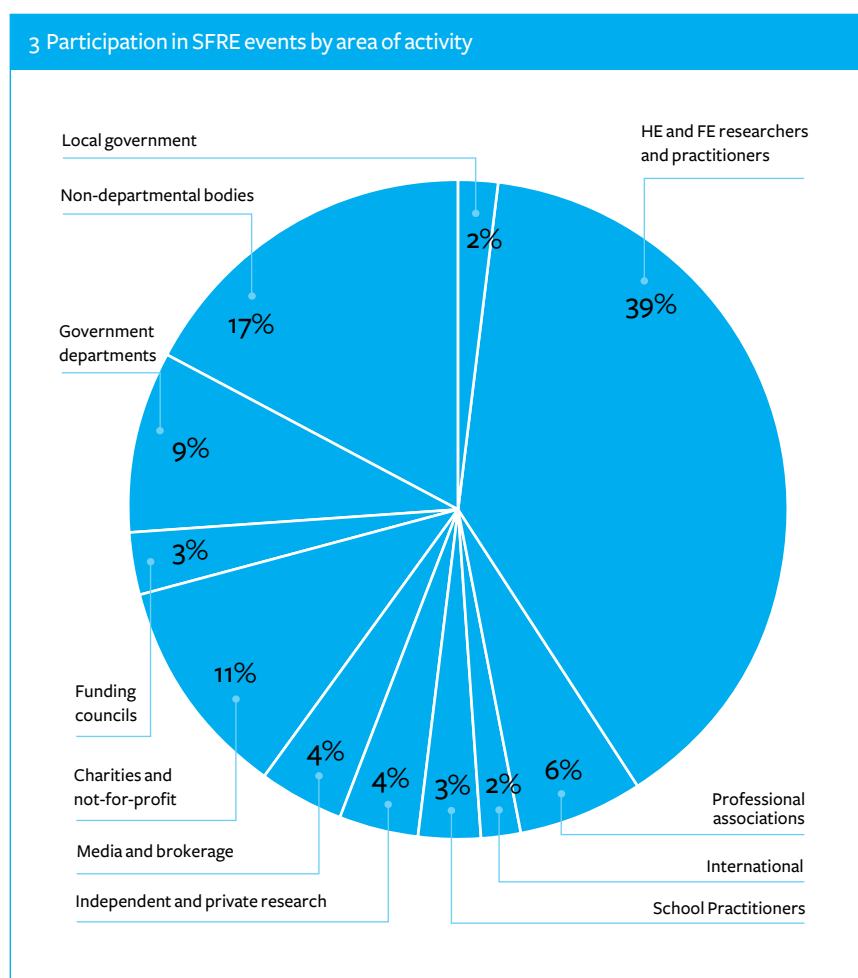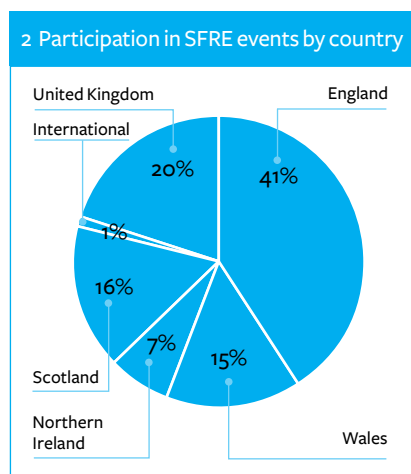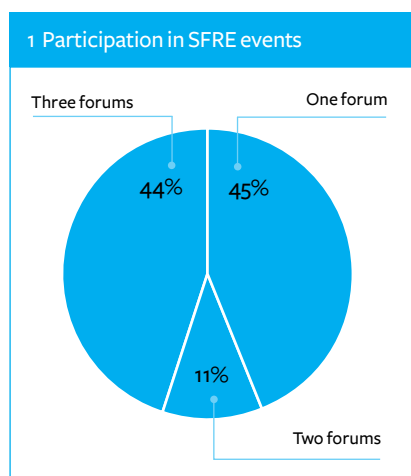
5) Cooperation

SFRE's mode of working encouraged collaboration among the different constituencies with an interest in education research, within and outside the activities organised as part of the Forum's programme. This approach was also consistent with the original setting up of the SFRE, as a collaborative initiative supported by four different funders (BERA, ESRC, DCSF and CfBT) and drawing together partners from all countries of the UK. Many of the national bodies represented on the SFRE took it upon themselves to act as catalysts of further cooperative developments and initiatives in their countries. Examples of such developments are included in the country reviews section of this report.

6) Representation

Throughout the activity of the SFRE, care was taken to ensure representation of all the countries, range of institutions/organisations and sectors. The three SFRE meetings brought together over 70 participants on each occasion, including researchers, practitioners, research mediators and policymakers from each of the constituent countries, from different types of institution and across many sectors. At each event, in order to offer continuity, there were participants who had attended a previous Forum, but many who had not been involved in SFRE previously were also invited in order to inject new perspectives to the discussions and to spread awareness of the initiative. Private and not-for-profit organisations also attended, as these organisations play a significant role in education research in the UK. Figures 1, 2 and 3 show the distribution of the total of 144 participants to SFRE by country, area of activity and continuity of engagement in SFRE activities (see Appendix 1). Invitations were made to enable a balance between continuity and diversity. Organisations representing school practitioners were engaged to offset the difficulty for those who were invited of obtaining leave.

Figures 1, 2 and 3. Participation in SFRE events (% of total number of individual participants)

1 Participation in SFRE events

- Three forums 44%
- One forum 45%
- Two forums 11%

2 Participation in SFRE events by country

- England 41%
- United Kingdom 20%
- International 1%
- Scotland 16%
- Northern Ireland 7%
- Wales 15%

3 Participation in SFRE events by area of activity

- HE and FE researchers and practitioners 39%
- Local government 2%
- Non-departmental bodies 17%
- Government departments 9%
- 3%
- Funding councils 11%
- Charities and not-for-profit 4%
- Media and brokerage 4%
- Independent and private research 3%
- 2%
- Professional associations 6%
- International
- School Practitioners

1.3. SFRE framework

As we have seen, the activity of the SFRE was heavily influenced by the OECD CERI's Country Reviews of educational research and development in New Zealand, England, Mexico, Denmark and Switzerland between 2000 and 2006. The teams of international experts assembled for these reviews gradually developed a clearer sense of what might be expected in any national system. Formalisation of this began with the Danish review in 2004 and was taken forward in work in Switzerland during 2006 – a review in which Pollard had participated as an assessor. In its most recent manifestation (see Pollard, 2007) the OECD CERI template probed national provision through twenty questions, organised in six sections:

- Contextual issues
- Strategic awareness
- Basic research
- Applied research
- Development and professional enquiry
- Generic issues.

For the purposes of the UK SFRE, a simpler framework was generated to suit a sequence of internal discussion in three forums over three years. The SFRE framework, while inspired by the OECD CERI experience, was the product of discussions across a range of UK constituencies with interest in education research. The challenges considered by the SFRE can thus be represented in the following ways:

Forum I

Context: What are the contextual circumstances of each country and its aspirations for educational development? What is the nature of existing educational R&D provision and the major contemporary challenges to it?

Quality: What quality assurance and accountability procedures are in place for educational research and development?

Capacity: Is there adequate capacity building to sustain complementary forms of educational research and development?

Forum II

Disciplinary research: Is there appropriate provision and incentivisation for the production of high quality research in disciplines contributing to the field of education?

Applied research: Is there appropriate provision and incentivisation for the production of high quality and innovative applied research?

Developmental research: Is there appropriate provision and incentivisation for the production of high quality and innovative developmental research, evaluation and practitioner enquiry?

Interdisciplinarity: Given growing awareness of the interconnectedness of education and other fields, how is interdisciplinary research supported?

Priorities: How are researchers, policymakers, practitioners and other appropriate stakeholders engaged in the identification, development, application and evaluation of national priorities for applied research and for development?

Forum III

Knowledge accumulation: What provision is there for knowledge accumulation and review and for appropriate linkage to UK and international networks, centres and activities?

Knowledge mediation: What provision is there for appropriate co-production, transformation and dissemination of research findings to stakeholders, including the general public and democratic process – and how effective is this?

Knowledge use and impact: Is there an impact strategy for educational R&D in each relevant educational sector, with clear understandings of what counts as disciplinary and applied research and of what counts as forms of development by practitioners and others – and the funding streams and organisational infrastructures to support these activities?

The above framework helped to focus the discussions at the three SFRE meetings and to structure their reporting. However, an important outcome of the SFRE process was also the questioning and refinement of this framework, in the attempt to make it a more effective tool in supporting further cooperation and dialogue. This report will make use of this more developed framework to structure the analysis of the discussions held at the SFRE events and of their conclusions and recommendations.

I.4. SFRE meetings

Forum I

Forum I took place in Harrogate in October 2008. This Forum considered the questions outlined above regarding context, quality and capacity in the constituent countries. Discussions took place within country groups so that the specific context of education research in each country could be explored. These discussions were supported by country stimulus reports (Morris, 2008; Leitch, 2008; Brown, 2008; Daugherty and Davies, 2008) which were prepared in advance and offered initial analysis of the state of play in relation to quality and capacity issues in education research in each country (these reports are available to download on the SFRE website: www.sfre.ac.uk/publications/forum-1/stimulus-reports/). Discussions at the first Forum noted that while there were varied levels of provision for research production and application in different countries, there was a particularly strong common challenge around effective research dissemination and mediation. There are also obstacles in terms of the historical structure of teacher education departments in HEIs and consequential challenges in the contemporary direction of travel towards more interdisciplinary work.

The complex issue of quality in education research was tackled at Forum I in professional groups – i.e. policymakers, practitioners and researchers and in sector groups (compulsory and post-compulsory). The discussions on quality and what criteria should be used in assessing quality confirmed that, whilst there were many issues in common, particular priorities in relation to these issues were maintained by different stakeholder groups. These tensions were explored and it was obvious that, although a number of generic concerns (e.g. about theoretical and methodological robustness, or about engagement and communication) were shared across a number of contexts, no single set of criteria could be identified[2]. Rather, it was necessary to recognise that different types of research had particular purposes and aims – with consequential variations in determinants of quality.

The final theme for Forum I was capacity. The overall level and distribution of researchers meant that there were concerns regarding capacity for research production in some key areas. Northern Ireland and Wales have particular issues around critical mass in some areas due to their smaller size. The effects of funding allocation mechanism are also felt very acutely. A key capacity challenge touched upon in Forum I was the capacity of researchers to effectively disseminate and frame their work for users (policymakers and practitioners) and the capacity of users to engage with research and the research process at a deeper level. An issue relating to both capacity and quality was that there appeared to be a growing disconnection between those involved primarily with teacher education and those undertaking education research – at both individual and institutional levels.

More details of the discussions and events of the first Forum are in the report from this event (Pollard, 2008) which is available to download, alongside presentation slides, stimulus reports and supplementary papers, on the SFRE website (see: www.sfre.ac.uk/forum-1).

In the period of time from Forum I to Forum II, the outcomes of the fifth round of the Research Assessment Exercise (RAE 2008) and corresponding funding allocations were announced. In their review of research quality, the Sub-Panel for Education concluded that: 'the quality of research activity reported in the submissions was high and significantly improved from 2001' (RAE, 2009). They stated: 'it is clear that the best departments can compete on equal terms with the strongest departments

anywhere in the world'. There was also growth in the range of institutions attracting quality-related funding in education, with 41 institutions achieving new funding. These outcomes suggested that the field had been significantly strengthened since 2001.

Forum II

Forum II provided a space to discuss the provision and incentivisation of different types of research in each country and in the UK as a whole. The discussions were informed by a conceptual framework distinguishing between different types of research (disciplinary, applied, development and evaluation, practitioner research and enquiry) and mapping them across different sectors and contexts. There was much debate during the event about the definitions of the different types of research identified in the framework. Participants recognised the value of such framework as a means of organising thoughts and discussions, but they also felt that there was often considerable overlap, for example between 'applied', 'evaluative and developmental' and 'practitioner' research.

Ahead of the Forum short contributions were prepared from a number of disciplines which contribute to the education field. These outlined the contribution a particular discipline made to education research and to interdisciplinarity. Written contributions covered philosophy (Bridges, 2009), economics (Vignoles, 2009), sociology (Francis, 2009), social anthropology (Mills, 2009), history (Richardson, 2009), neuroscience (Goswami, 2009) and psychology (Lunt, 2009). This selection of disciplines was intended to give a flavour of the wide variety of disciplines upon which education research is based. The discussions stimulated by these presentations, while recognising the enduring contribution of the disciplines to research knowledge in education, also acknowledged the complexity of the disciplinary landscape of education research, the permeable disciplinary boundaries of different bodies of work in education and the constantly changing institutional conditions for disciplinary work (see Furlong and Lawn, 2010).

Planning Group members from each of the UK countries also drafted reports which pulled together examples of applied, evaluative and developmental and practitioner research in their country and, to stimulate discussion, proposed areas for development/improvement. The disciplinary information was collated separately due to the international nature of this type of research. The disciplinary statements and country mappings are available to download on the SFRE website (see: www.sfre.ac.uk/publications/forum-ii-publications/input-documents-for-forum-ii).Notes from each discussion group are available on the SFRE website (see: www.sfre.ac.uk/forum-2). Tom Schuller (NIACE, formerly OECD CERI) participated in the event as an external reviewer of the proceedings and John Selby (HEFCE) closed the event with his thoughts and observations (see: www.sfre.ac.uk/forum-2).

Forum III

The third SFRE meeting, in Edinburgh, adopted a very participative format, consisting of cycles of questions, case studies, group discussions and reflective commentaries on each of the topics addressed: accumulation, mediation and impact of education research knowledge.

Knowledge accumulation was recognised by participants to the third Forum as having a vital role to play in any knowledge management system. However, a distinction between the accumulation and interpretation of knowledge was felt to be significant and to enable the role of theorised synthesis to be acknowledged. Interpretive syntheses of cumulative knowledge, when critical, rigorous, fit-for-purpose and appropriately theorised, have the potential to improve the effectiveness through which policy-makers are informed and practitioners empowered.

The UK infrastructure for knowledge accumulation is very diverse in terms of libraries, electronic resources, databases/ indexes and repositories, though there are also some core resources. There is at present considerable variation in terms of infrastructure for accumulation and interpretation between countries and sectors and also from topic to topic. Despite the potential of new technologies, users still face significant barriers in

accessing evidence in education because of limited access to some resources, variable quality assurance and fragmentation of sources.

Effective research mediation was perceived by many SFRE participants as not only being an attribute of a good research environment but also as indicator of a well-functioning evidence-informed democracy. At present, there are inadequate incentives, training and infrastructures for research mediation, with variable reward structures in different sectors and professional communities. Contributing to the interpretation and application of research findings was seen as being part of the contemporary role of professional researchers. However, the brokerage role of media and communication specialists to support dissemination and impact processes was confirmed. It was noted that this requires good understanding of the relevant epistemic, methodological and political constraints as well as practical media and communication skills.

In terms of outputs, discussions at the forum highlighted the importance of tailoring writing styles and presentation formats to the full range of audiences. Capacity for cost-effective production of such outputs is limited, but rapidly changing technologies create many opportunities for innovation. In terms of processes, it was agreed that mediation should encourage both the supply of and demand for, relevant and credible evidence, as well as the interplay between the two. Expectations of user engagement, co-production and dialogue between stakeholders at all research stages were seen as significant advances on simple 'knowledge transfer'. However, despite this attractive rationale, the capacity and commitment of researchers, practitioners and policy-makers remains limited at present.

Impact was not seen as a clear-cut concept. At both system and individual levels, research evidence does not simply compel to action but is filtered through judgments about aims and values and balanced against other forms of evidence and incentives to action. At present, systemic institutional development to use research is embryonic and the role of 'champions' in the use of evidence from practitioner, policy-maker and researcher communities remains vital in achieving impact. Strategies for educational research impact in the UK should aim to promote potential impact, to support current use of evidence in practice and to create enabling conditions for further engagement with research evidence among practitioners and other relevant constituencies. The measurement of actual impact for research assessment purposes should be secondary to this.

Presentation slides, notes on plenary sessions, including case studies, rapporteur's notes on group discussions and the overall SFRE III report are available from the SFRE website, at www.sfre.ac.uk/forum-3.

I.5. SFRE reports and website

Reports on three major meetings of SFRE are:

1) Pollard, A. (Ed) (2008) **Quality and Capacity in UK Education Research.** Report of the first meeting of the UK's Strategic Forum for Research in Education, 16th and 17th October, Harrogate.

2) Tough, S. (2009) **Disciplinary, Applied, Developmental and Practitioner Education Research in the UK.** Report of the second meeting of the UK's Strategic Forum for Research in Education, 17th and 18th June, Reading.

3) Oancea, A. (Ed) (2010) **The Accumulation, Mediation, Application and Impact of Education Research Knowledge.** Report of the third meeting of the UK's Strategic Forum for Research in Education, 17th and 18th March, Edinburgh.

The SFRE website, at www.sfre.ac.uk, is a rich resource. In addition to providing downloads of the three reports above, it summarises the discussions at each event and deploys this information into the structure of topics which has formed the SFRE agenda. It thus provides a holistic overview of SFRE deliberations. The website also provides further reports and supporting materials on the development and use of educational research, many of which were commissioned specifically for SFRE.

www.sfre.ac.uk is organised by:

- FORUM I, II, III (presentations, reports and perspectives at each main event)
- KEY QUESTIONS (a collation of SFRE deliberations in relation to each structuring issue)
- COUNTRIES (descriptions of contemporary activity and provision for UK countries)
- PUBLICATIONS and RESOURCES (key references and information for further study).

Section II. Country summary reviews

II.1. England[3]

It is difficult to separate England from the rest of the UK when looking at educational research. While Government is split in this way, many other funders and providers are not. As with the other countries of the UK, education research in England is a very broad field with a wide range of disciplines and approaches. An estimate of the value of this research in England in 2002 was of £70-75 million a year (CERI, 2002). Most research is undertaken by university departments, but there is also considerable research in this field undertaken by or for Government Departments, charities and not-for profit organisations, as well as think tanks and commercial research organisations.

Networks and initiatives to share and co-ordinate activity tend to be based on sectors due to the size and geographical dispersion within England, and as a result they tend to cover the whole of the UK. There is a danger that these UK-wide networks can become dominated by England and English interests, purely because that is where most participants are based.

Some UK-wide networks have specific English sectors, such as the Higher Education Academy. This is funded by a number of different agencies, but within England has funding from the Higher Education Funding Council for England to undertake a number of specific activities.

Within other sectors there are specific initiatives. Within the Schools sector there is the National Teacher Research Panel (NTRP) which is an independent group of practising teachers and tutors who work to make sure that research in education takes account of the practitioner perspective. Within the Children's Services sector there is the Centre for Excellence and Outcomes in Children and Young People's Services (C4EO) which aims to identify, co-ordinate and disseminate national, regional and local knowledge and evidence about systems and practice.

Recent initiatives to improve the provision and use of educational research in England include:

- attempts to encourage greater collaboration in setting research priorities, particularly within Government. For example the Department for Education (previously DfES and DCSF) has involved University researchers in analytical planning through seeking views on evidence gaps at events and conferences, and at regular liaison meetings.
- collaborative efforts to promote the need to evidence-based policy and practice through, for example, the Coalition for Evidence-Based Education (CEBE). Led by Bob Slavin and others from York's Institute for Effective Education, under the patronage of Baroness Estelle Morris, CEBE has involved a series of consultation meetings during 2009 with potential users and stakeholders, looking to raise awareness of the need for sound evidence in education policy and practice.
- collaborative efforts to improve access to evidence for example through the Educational Evidence Portal which is attempting to provide access to evidence from a range of sources using a single search. Work is also underway to map and signpost available free-to-the-user research/ resource databases, and make this guide to the system easily accessible.
- The General Teaching Council for England has a 'Research for Teachers' feature which is designed and populated by CUREE (the Centre for the Use of Research and Evidence in Education). It contains substantial practitioner oriented presentations of cornerstone empirical studies and also strands of theoretically driven empirical work organized "tell the story" of key findings. What's distinctive is the way it links large scale research, practitioner research, research tools, research user tools, CPD activities – and then uses the GTC networks for mediation.

[3] We are grateful to Deborah Wilson and Stephen Witt (Department for Education) for the text in this section.

There are particular challenges for Education research in England.

As previously mentioned, the size and geographical dispersion within England in relation to other countries of the UK makes it difficult to generate effective networks for sharing of information or co-ordination of initiatives. In addition, the split of Government responsibilities for education in 2007 between two Government Departments can also create difficulties, particularly where there are policy areas which may overlap (such as policy for the further education sector, or issues around promotion of higher education in schools).

Compared to other countries in the UK, England appears to have a more competitive market amongst institutions and organisations undertaking research because of the large number actually based in the country. This may discourage some of the overview and shared thinking which may be easier in smaller countries.

Future developments in England will also be subject to changing political priorities following the election of a Coalition Government in May 2010, and efforts to reduce the country's budget deficit. It may take some time for the longer-term implications to become apparent.

A key benefit of SFRE has been to encourage sharing of experience and ideas and the potential for more collaboration across the four countries of the UK. For example, prior to SFRE there were few inter-Governmental links on overall educational research strategy or practice.

What SFRE has left England with is a challenge to share experiences and discuss the implications further within existing networks across the country, and look at how we can support the recommendations that have emerged.

II.2. Northern Ireland[4]

The final summary report for Northern Ireland sets out recent developments on the current state of knowledge and management systems in education in Northern Ireland and concludes by projecting some future possibilities for this context. The description that follows necessarily reflects and is influenced by two main factors (i) the radically shifting social, political and economic situation both globally and locally, and (ii) the impact of the Strategic Forum for Research in Education (SFRE) itself on local developments, during this period (2008-2010).

During the period, developments that have been recorded are:

- Increased discourse and discussion amongst education stakeholders on improving the infrastructure in order to develop the evidence-base in education
- Increased recognition of the value of a more inclusive definition of educational research to embrace the variety of academic research coupled with systematically collected educational (statistical) information, all of which potentially contributes to the knowledge base
- Momentum to improve and co-ordinate an educational research agenda (with clear strategic priorities) through the recently formed Northern Ireland Education Research Forum (NIERF) which is championing this direction
- Improved use of technology for disseminations of NI research through educational data bases and repositories
- Continuing investment by charities, philanthropic bodies and NGOs in local educational research despite economic downturn
- Concerted efforts and initiatives to improve and build academic research capacity with professional researchers and in the dissemination, mediation and exchange of information
- Links and partnerships with the Republic of Ireland as well as Scotland, England and Wales strengthens the platform and impact of accumulating local research knowledge as well as drawing attention to unique strengths

- A number of outputs documenting the baseline and developments of knowledge accumulation and management in NI and, despite fragmentation, the identification of pockets of good practice.

Issues identified requiring to be addressed include:

- Desire for a more coherent, shared, medium to long term strategic plan for research priorities across organizations, departments and sectors, leading to an improved evidence-base for educational policy decision-making
- Encouraging further dialogue, collaboration and improving partnerships and user engagement
- Lack of investment in research-informed policy by government and need for a fundamental shift to recognising that quality (as opposed to instrumental) research can inform and address, as well as evaluate, problems of strategic importance to education
- Challenges to increasing quantity, quality and retention of active researchers in the HEI in preparation for research assessment (Research Excellence Framework).
- Developing the infrastructure for accumulating knowledge and capitalizing on existing research in NI and as a means to identify key information gaps
- Finding ways to improve practitioner engagement and include quality practitioner research in the knowledge base
- Need for improved research capacity building and public understanding /valuing of educational research, including mediation and dissemination strategies
- Consideration of potential role for a centre for research excellence in a country of this size and given the current restructuring/rationalization of education management and support through the Review of Public Administration (RPA).

During the last three years, educationalists and policy makers in Northern Ireland have independently identified a broad range of challenges to be faced over the next decade within both school and post-compulsory sectors. These include pressures for rationalization of school provision, broader entitlement for children and young people, improved teaching, learning and assessment, the achievement of greater social equality and inclusion, adult literacy and numeracy and higher levels of attainment etc. The realization and resolution of many of these issues, across compulsory and post-compulsory sectors, would doubtlessly be enhanced by systematic research and careful management of knowledge and information. However, as yet and, despite aspirations, there has been no transparent agreement on priorities nor the development of a coherent agenda.

A key component for the future direction and co-ordination of knowledge management in NI is currently seen as residing in NIERF. This forum was established by DE in early 2008, in an effort to build links with the wider educational research community and, to address the fragmentation and connectivity problems that exist in Northern Ireland with regard to educational research. The most significant event has been the hosting of a symposium to engage researchers with differing user groups and evaluation communities in Northern Ireland, in pursuit of local coherence and improved quality in educational research, policy and practice. The event was opened by the Permanent Secretary of the Department of Education and the symposium generated key research priorities and a positive orientation towards further collaboration.

Participants at the event recognised that the vision of a coherent knowledge management strategy for Northern Ireland is unlikely to be practicable. It was suggested that we do not necessarily need 'coherence' in the sense of some notion of single coherence, as each community, sector, department or organisation has its own set of priorities and methodologies which rightly differ (but may indeed also partly overlap) and which are fit for their own specific purpose(s). We do, however, need to work towards a knowledge creation framework, within which some common coherence and goals can be articulated through principles and key elements that relate each to the other to form part of a larger, shared vision.

The following were identified as some of the key principles which might help to define a Knowledge Creation Framework for Northern Ireland.

Alignment: of priorities/strategies etc within departments/sectors and between departments/sectors in order to make the best use of resources and outcomes

Communication: improved communication about what research is available or forthcoming and its locus (we see a single web-portal as an important tool)

Accessibility: to existing data sources, to more information about what everyone is doing (again, linked through a web-portal)

Collaboration: between various knowledge creation sectors/parties

Consultation: improved consultation at each stage of knowledge generation, including consultation on priorities

Interdisciplinary: more dialogue with other professions (eg. educational psychologists; sociologists) working in the area of educational research and more opportunities for developing interdisciplinary research

Peer review: further development of peer review as integral to research commissioning and evaluation, required at each stage of process; consider whether this development might be taken forward by NIERF

Dissemination: viewed as a crucial element of the research process, including a policy response on how any research is intended to be used.

This event was to be followed by other planned symposia with policymakers and practitioners that have not yet happened. Due to a variety of factors, such as change in personnel, the economic downturn and priorities over restructuring (the Education Skills Authority), the initial momentum associated with NIERF has been constrained during 2010. With an imminent political shift in attention away from structural issues arising from the RPA, this setback is due be resolved.

Through NIERF, key players are intent on exploring and developing further its role in the co-ordination and collaboration between all stakeholders involved in educational research in Northern Ireland. Developing educational research discourse is likely to be achieved by extending the current NIERF representation to include other organizations, such as GTC(NI), Council for Curriculum Examinations and Assessment (CCEA), teacher unions, business and the voluntary sector. The current hiatus may also indicate the need for reconsideration of the constitution and operating principles of NIERF, such that its role and development can be sustained. Good will and best intentions however will need to be underpinned swiftly by strategic financial investment by the statutory sector in a research strategy, if those involved are serious about addressing and enhancing the quality and effectiveness of educational policy and practice. In this sense the proposal for a centre for research excellence should not be lost to the agenda.

Finally, SFRE itself has been instrumental in furthering the educational research agenda in Northern Ireland. Locally-based, embryonic movements were given significant support and impetus through engagement with other national sub-systems, including latterly the Republic of Ireland. Frameworks, stimulus questions, discussions and, most particularly, ongoing fora and networking have played their part in altering the landscape and shaping the horizons of how knowledge about educational matters is (or should be) created, mediated and applied in a country the size of Northern Ireland. Given the strides that have been made here and in the other three countries, the continuance of this body is cost-effective in supporting and assuring the drive towards good practice.

II.3. Scotland[5]

Context

Since the creation of Scotland's devolved parliament in 1999, there has been a keen interest in enhancing the education system through the development of ideas built on the views of the community. However, it is important to note that Scotland is already distinctive within the UK as it has maintained a discrete system affected but not shaped by policy from elsewhere in the UK (see for example: www.scotland.gov.uk/publications). The Scottish Government, established in 1999, has initiated several major policy developments aimed at driving transformational change across the education system – from early years provision, through compulsory schooling and into adult learning. The Director General for Education is charged with implementing these policies in collaboration with delivery partners in local authorities, Her Majesty's Inspectorate of Education, the Scottish Qualifications Authority, Learning and Teaching Scotland, Skills Development Scotland, Scotland's Colleges and Universities Scotland amongst others.

The Education Analytical Support Division (EAS) in the Scottish Government provides a range of analytical support services (research, statistics, economics) to the Children and Young People, Learning and Lifelong Learning Directorates. The research undertaken by EAS is a mix of in-house and externally commissioned work. Commissioned work ranges from research to support specific policy initiatives (e.g. research on the consultation on National Qualifications, www.scotland.gov.uk/Publications/2009/02/23130007/0) through to major international studies of educational achievement. Increasingly, research undertaken or commissioned by EAS will focus on what works in terms of improving the educational outcomes of Scotland's children and young people and on providing evidence of progress against the Outcomes and Indicators set out in the Government's National Performance Framework (www.scotland.gov.uk/Publications/2007/11/13092240/9). EAS will also be reviewing its analytical approach and commitments in light of the current financial climate, ensuring that its resources are focused on evidence that will have a high impact.

Curriculum reform – Curriculum for Excellence

Curriculum for Excellence (www.ltscotland.org.uk/curriculumforexcellence/) is the key programme of reform at the heart of Scottish Government education policy and which defines the contribution of young people's learning to achievement of the National Outcomes. Schools and colleges are already making changes to learning and teaching based on the information they have relating to the new curriculum. From August 2010 all children and young people will experience the new curriculum and new qualifications will come on-stream from the summer exam diet of 2014. In addition, Skills for Scotland: A Lifelong Skills Strategy set out the Scottish Government's ambitions for skills, in a lifelong learning context. As debate and discussion on the ways in which education within Scotland can be research informed and curriculum reform can be supported by the building of research collaborations and networks (see for example Applied Educational Research Scheme – www.aers.org.uk/aers/, Schools of Ambition – www.ltscotland.org.uk/schoolsofambition/about/schoolsofambitionresearch.asp, Scottish Educational Research Association – www.sera.ac.uk/) policy has reflected an increasingly holistic view of learners and the learning process. High quality analytical support is recognised as being essential to achieving the transformational change demanded by Curriculum for Excellence, and for achieving and maintaining a successful Scottish education system for the future.

Education Research

The Scottish Government has led the development of curriculum reform but has also helped to establish collaborative research work along with the Scottish Funding Council by funding the Applied Educational Research Scheme (AERS, www.aers.org.uk/aers/) between 2003 and 2008, in recognition of the importance of high quality education research, and amid concerns about an apparent lack of education research capacity within Scottish Universities. After a competitive process of peer review, the grant for the AERS was awarded to a consortium of three universities – Edinburgh, Stirling and Strathclyde. Launched in January 2004, AERS was a £2 million, five year programme

aimed at developing research capacity in the education field in Scotland. AERS has helped to enhance capacity, collaborations and research methods training.

The end of the Applied Educational Research Scheme (AERS) in 2008 and how its legacy has followed on through the networks supported by SERA is an important matter for consideration. The role of SERA was felt by participants to SFRE to be to build practitioner, policy and international links. The extent to which a network such as SERA required funding to undertake this role was debated. Overall there appeared to be some lack of capacity in place, partially due to issues of scale and likely to be compounded by reducing funds in the future.

The General Teaching Council Scotland (one of the oldest Teaching Council's in the world) promotes continuing professional development (CPD) and through sponsorship supports individual practitioner research projects. Considerable funds have also been spent on supporting a new look at teacher education (Scottish Teachers for New Era – www.abdn.ac.uk/stne) with combined funding from the Scottish Government, the Scottish Funding council and the Hunter Foundation.

Scotland also participated in the Teaching and Learning Research Programme (TLRP), which had the aim of 'supporting and developing UK educational research to improve outcomes for learners of all ages'.

Research Assessment Exercise (RAE) 2008 results highlighted the strength of a growing research culture in academic institutions in Scotland in conjunction with increasingly high quality outputs. The extension of such success will be supported by groups emerging from AERS, the development of engagement in, and with, research by practitioners and the increasingly strong academic research community.

Further priorities
At the first meeting of the UK Strategic Forum for Research in Education, Professor Sally Brown (University of Stirling) generated a highly informative outline of issues in Scotland (Brown, 2008) with regard to education research quality and capacity. After much discussion, this led to the creation of priorities for future consideration in developing both these aspects of research in Scotland.

The work of the SFRE has generated discussion and debate around notions of research creation, mediation and application in Scotland. An important aspect of this work has been the catalyst provided by SFRE for each jurisdiction within the UK to learn from each other and engage more fully within each area, with those who seek to fund, generate and use educational research.

Consequently in November 2009, Scottish Government (Education Analytical Services) initiated a meeting bringing together the main public sector funders and stakeholders of educational research (including HMIE, LTS, SQA, SFC and local authorities) to establish how they currently engage with research and where their future research priorities lie. Key elements of the discussions included:

- The capacity within Scotland/ outside Scotland to provide this evidence at a reasonable cost and of a reasonable quality
- What scope there is to work with others within the public sector to meet evidence needs
- How the public sector can best engage with the suppliers of evidence

Building on the outcomes of this meeting, the Scottish Educational Research Association (sera.ac.uk) held an event in February 2010. Those who had attended the Scottish Government event were also invited to attend this meeting, along with practitioners and academic researchers.

The starting point for this seminar was that a more explicit articulation of strategy, purpose and coherence would be helpful in encouraging research which might have an impact upon policy and practice. In particular research to address the strategic

priorities of the policy community and assist the community to enhance the education system in a time of diminishing budgets is needed. An assumption was also made that a collaborative approach to the generation and sharing of research would be worthwhile and positive in trying to achieve impact. It was felt that such collaboration should also be multi-disciplinary making use of a wide variety of skills and perspectives. It was noted that, while previous and current developments (AERS, 2003-2008; Schools of Ambition, 2008; Chartered Teacher Association, founded 2010) highlight the possible benefits of collaborative working around particular topics or development areas, a more strategic approach at a variety of levels would help to encourage such projects and the interconnectedness of any debates and evidence accumulation. One step towards this goal would be work on a framework for sharing both strategy and evidence across groups, sectors, creators and users of research (see Hamilton et al, 2010).

II.4. Wales[6]

Over the last ten years, the Welsh Assembly Government has developed an ambitious reform agenda that is placing learning at the centre of social and economic wellbeing. The Learning Country (WAG 2001) and The Learning Country: Vision into Action (WAG 2006) have mapped out an educational path for Wales that celebrates the country's strong cultural traditions but also takes learners and learning in exciting and challenging new directions.

During the same period, however, this 'small and clever country' (WAG 2004) has seen a significant decline in the volume and quality of education research activity taking place within its universities. The Education Subpanel of the 2008 Research Assessment Exercise (RAE 2009) has drawn attention to the decrease in the number of research active staff returned and the 'low average quality profile for Welsh institutions'.

There are small pockets of excellence in research in Wales - for example, Bangor University hosts the prestigious ESRC Centre for Research on Bilingualism in Theory and Practice. However, with the notable exception of Cardiff University, other Welsh HEIs appear to be struggling to reach a critical mass of education research activity. Such capacity as there is can best be described as 'fragile' and in need of continued support and encouragement.

As Wales' distinctive policy agenda continues to diverge from other parts of the UK, the fragility of its education research base is an issue of significant concern to the academic research community in Wales and the Welsh Assembly Government. In order to address this, there have been a number of recent initiatives which have tried to draw together and consolidate the small pockets of research.

WERN (Welsh Education Research Network) started in early 2007 as an informal network of active researchers from different institutions in Wales. It subsequently received funding from ESRC and HEFCW and was able to distribute bursaries to groups and individuals across the country to enable them to develop research expertise and write research proposals. Although WERN's funding came to an end in 2009, it was favourably evaluated and has contributed to increasing recognition that institutions need to work together if they are to address the education research deficit across the country.

The Welsh Assembly Government's Higher Education strategy 'For Our Future' focuses on the need for collaboration and the delivery of research which is 'consistently rigorous and internationally respected'. In building a more robust education research community and promoting dialogue between researchers and policy-makers, Wales faces a number of challenges. For a country with a small population, it has eleven HEIs (including the Open University in Wales) which are geographically dispersed and receive lower levels of per student expenditure than in England and Scotland (WAG 2009). A successful collaborative project reviewing the findings of the TLRP demonstrated the benefits of partnership working between Government, researchers and practitioners.

There are also challenges in fostering research dialogue between HEIs, WAG and local authorities. Local authorities in Wales, perhaps more so than elsewhere in the UK, are seen as playing a crucial role in interpreting, delivering and evaluating policy. However, while the political significance of local authorities has been upheld, their capacity is constrained by their size. Although authorities vary widely in size (Cardiff has 48,000 children while Merthyr has only 9,000) and density (Cardiff has 341 children per square kilometre, Powys has just 4), they are generally much smaller than their counterparts in England. These combined difficulties of resource constraint and diseconomies of scale are likely to become more acute as a result of increasing financial difficulties over the coming years.

However, while the size of Wales creates challenges, it also provides opportunities. The Welsh Assembly Government and HEFCW have increasingly been engaged with the education research community in a close and productive dialogue about how to build research collaboration through partnership. It can be said that these discourses between academics and policymakers have become much more the 'norm' in Wales - not least because of the influence of SFRE.

The SFRE has been an important catalyst in the strengthening of relationships and improved dialogue between Government and the academic research community in Wales. The Fora have created a valuable 'space' for policymakers, practitioners and the research community in Wales to share, explore and discuss their perspectives.

Section III. Towards a UK model for developing and mobilising research knowledge in education

III. 1. Introduction

SFRE's three major meetings were structured by the model of systemic knowledge management which derived from the OECD CERI experience – the framework described on page 11.

As consultation continued and the agenda unfolded we incrementally developed the model. We also began to foreground the development and mobilisation of knowledge, rather than simply its management.

SFRE consultations demonstrated both of the richness and variability of provision within the UK. There is some tension in this, for it became apparent that, whilst there are many examples of excellence in research development and mobilisation in education, there are also many spaces where provision is rudimentary or even absent. There are thus many opportunities to add value and to achieve more coherent provision.

III.2. Conceptualising the model

Set within the overall political and social context of each country, six elements of knowledge development and mobilisation are proposed:

Origination and planning – including the conditions and provision for the facilitation and prioritisation of research activity

Creation and production – focusing on both innovation and the completion of projects in respect of each major type of research

Assessment and validation – including peer judgement, user and beneficiary validation and the processes, criteria and indicators specific to each assessment context and type of research
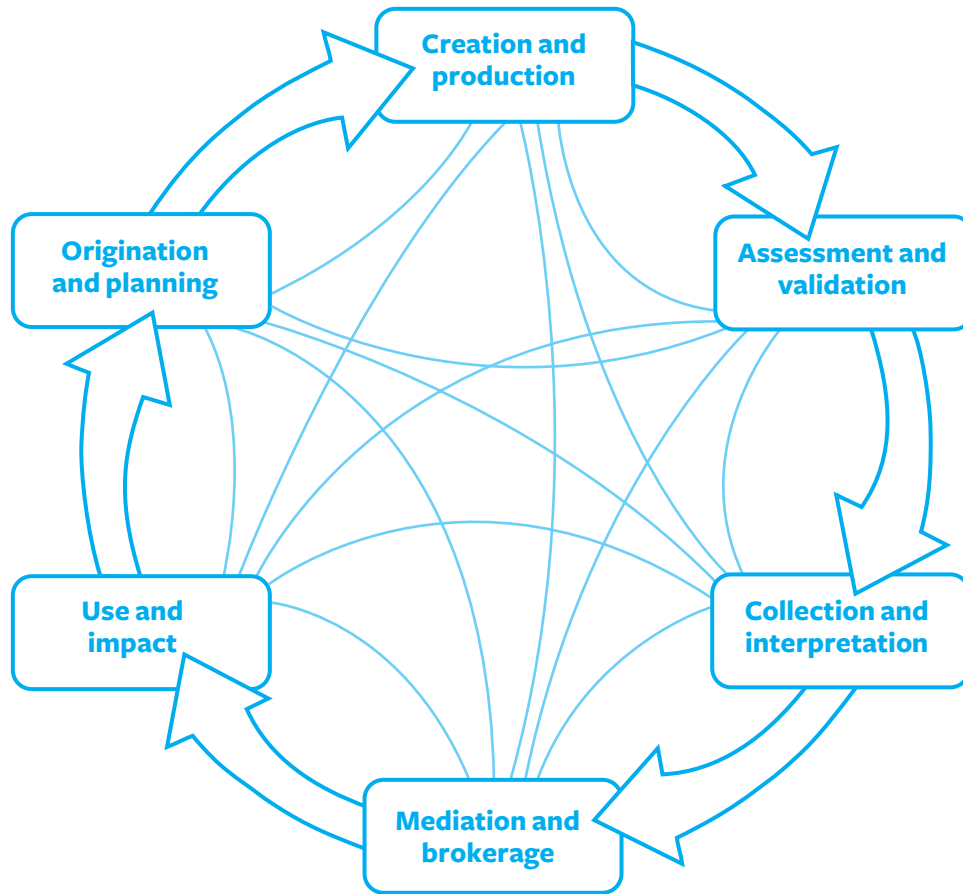
Collection and interpretation – concerning issues such as the processing of new knowledge in libraries and databases, empirical review and theoretical synthesis

Mediation and brokerage – addressing the multifaceted promotional and communication strategies which enable the supply of and demand for evidence to be bridged

Use and impact – considering the ways in which knowledge is used, scaled up and takes effect within policy and practice

These elements can be represented in progressive, spiralling cycle which, in rational, system terms, might provide an idealised template for provision (Figure 4).

Creation and production

Assessment and validation

Origination and planning

Collection and interpretation

Use and impact

Mediation and brokerage

The representation is intended to provide an object for discussion, whilst also affirming the flexibility which is often evident. The Teaching and Learning Research Programme provided many examples of the complexity of processes of knowledge development and mobilisation. For instance, because of the high levels of user engagement deployed, the findings of some projects were very rapidly put to direct use – by-passing accumulation and mediation. Similarly, it was common to find iterative processes linking the research teams involved in the production of new knowledge and the brokerage agencies serving particular sectors. For example, Learning How to Learn was engaged with NCSL, National Strategies and other organisations through-out its existence. Projects on Widening Participation in HE were in regular touch with HEA throughout their development. Direct links can also be identified between the knowledge interpretation functions of organisations such as EPPI and IEE and those seeking to commission and plan new investments. Users wishing to apply research outcomes will often wish to check on the quality of the work, and may wish to do so directly, by-passing any brokerage agencies even though they may have brought the finding to their attention.

It was also absolutely apparent from discussions at SFRE that relationships between these elements are complex, dynamic and sometimes patchy.

The model thus combines a notion of logical and sequential progression, with a representation of the inevitable complexity of inter-relationships as professionals and organisations take initiatives and exercise judgement. As such, it is intended to be useful for conceptualising potential inter-relationships between elements, for posing questions and challenges. However, whilst it enables and provokes consideration of what an 'ideal' system might look like, it is not a description of such a reality. The complexity of the issues, interests and stakeholders precludes any such expectation.

It is also helpful to be clear that the tidiness of the model should not be taken to imply adoption by SFRE of a naive view of the knowledge generated by educational research and its systemic application. There are two dimensions of this – one on the epistemological status of social scientific evidence and the other concerning respective roles within democratic societies.

SFRE participants appeared to share a commitment to 'evidence-informed' decision-making in policy and practice. Indeed, bolder claims to be able to demonstrate 'what works' and offer 'evidence-based' policy and practice were rare. This suggests that there is a growing consensus which accepts the necessary modesty of scientists, of any sort, in generating categoric knowledge about the social world for application in diverse contexts. The obligation on researchers to produce evidence of the highest possible quality is in no way compromised by this realistic position.

Further, since values, interests and educational provision are fundamentally entwined in our democracies, a question arises concerning the appropriate role of the social scientist. In the SFRE conceptualisation presented here, the exercise of professional judgement by the politician, civil-servant or practitioner is seen as an integral part of the process of research application. Thus different forms of expertise and judgement are applied by those with particular roles, legitimacy and responsibility. Notwithstanding this, the application of evidence by practitioners and policy-makers remains an appropriate object of study in its own right.

In summary, SFRE's idealised representation is not intended to describe some form of engineered machine in which pulling a lever will produce evidence-based excellence. The discussions at SFRE suggest that the issues and field are too complex for that. At the same time, it was felt that stakeholders in UK education could significantly improve the contribution they make to educational decision making through more open-minded collaboration, holistic awareness, strategic commitment and practical organisation in relation to the development and use of evidence.

In Section III, SFRE's six-element model is used to structure an account of the major issues discussed at SFRE meeting. Each section concludes with explicit recommendations.

III.3. Elements and recommendations

A. Origination and planning

The political, social, economic and cultural conditions which facilitate the generation and valuing of evidence are fundamental. Deliberations at SFRE suggest that commitment in principle to the use of evidence in policy and practice decisions is strong within all UK countries. And yet neither the demand for nor supply of research evidence is consistent. As a result, it is clear that many decisions are taken without such consideration. Although the principled intention is well established, there is much further to go in practice.

SFRE itself was created as a constructive response to this situation with the hope that it might provide a way to affirm excellent provision where it does exist in the UK, whilst also sowing seeds for new initiatives, improved coherence and better value-for-money in the future.

The establishment of research priorities provides an example of the complexity which exists. In a rational, managed system, configuring research activity to address national targets and priorities would seem an obvious thing to do - and was, indeed, advocated by NERF. Such a strategy is particularly attractive to governments and, for example, recently structured the foci of AERS in Scotland and WERN in Wales. ESRC also attempts to respond to the contextual needs expressed by its government funders. A Funders' Forum, which existed in England from 2001 to 2005, provided opportunities for explicit discussion on this issue.

A counter argument, advanced particularly by some in the academic community, is that cutting edge research should be unconstrained. Too much central planning, it is argued, is bad for the competition of ideas which is the foundation of scientific progress, the 'open society' and democracy. Whilst recognising an element of vested interest here, these arguments were acknowledged by SFRE participants as being important for innovation. Additionally, the diversity, independence and variable capacity of funders need to be considered, for many have particular histories and commitments and there are different interpretations of appropriate procedures when commissioning research.

Meanwhile, the needs of practitioners, teacher associations, local government, companies and others who are directly engaged in the provision of services demand attention. For them, research priorities tend to focus on topics of more immediate relevance – behaviour, curriculum, work-load, cost-effectiveness. When articulated organisationally, such needs may be met but it remains hard to really tap into the authentic voice of practitioners. One particular difficulty is developing appropriate infrastructure for building user capacity to engage with and contribute to the research initiation and planning processes – from identifying research questions and through the many stages of commissioning. Further, despite compelling international evidence concerning the efficacy of teachers gathering evidence on and reflecting about their own practice, support for this activity is variable across sectors and in each country.

We thus face dilemmas in relation to the strengths and weaknesses of planned priority setting versus more open research processes led by curiosity and in responding to the direct needs and interests of providers and practitioners on the ground.

The dilemmas identified above begin to be resolved by more explicit recognition of the range of different traditions of research which have developed to meet particular

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ESRC's research priorities

ESRC's research priorities fall within two categories: directed research and responsive research. Directed research includes ESRC's own challenges, identified in the strategic plan for 2009-2014 in line with the CRS key policy challenges, and the relevant RCUK interdisciplinary challenges. The 2009-2014 strategic plan of the ESRC identifies seven areas of strategic challenge for economic and social research: Global Economic Performance, Policy and Management; Health and Wellbeing; Understanding Individual Behaviour; New Technology, Innovation and Skills; Environment, Energy and Resilience; Security, Conflict and Justice; Social Diversity and Population Dynamics.

ESRC's strategy is to invest a significant proportion of its budget in large-scale activities such as centres, programmes, groups and networks in these priority areas. Most of these activities are interdisciplinary in nature and a large number are funded jointly with other research councils or other partner organisations. In addition to directed research, the ESRC also maintains a very strong commitment to funding innovative excellent research via its responsive research funding schemes (see ESRC delivery plan, updated April 2010).
www.esrcsocietytoday.ac.uk

Scottish Government forum on demand for research

In November 2009, Scottish Government (Education Analytical Services) convened a meeting bringing together the main public sector funders and stakeholders of educational research (including HMIE, LTS, SQA, SFC and local authorities) to establish how they currently engage with research and where their future research priorities lie. Discussions covered: the capacity in Scotland to provide research evidence at a reasonable cost and of reasonable quality; the scope for collaborative work within the public sector to meet evidence needs; and how the public sector could best engage with the suppliers of research evidence.

Building on the outcomes of this meeting, the Scottish Educational Research Association held an event on enabling research impact in February 2010.
www.scotland.gov.uk/Topics/Education
www.sera.ac.uk

purposes. Four main types of research were identified within SFRE: disciplinary research; applied research; development and evaluation; and practitioner enquiry – each of which was felt to be important for its particular purposes. Of course, many research activities range across such analytic boundaries. Taken as a whole, they enrich both understanding and application.

In terms of origination, planning and prioritisation of research topics, different forms of research have rather different requirements. Disciplinary research is primarily driven by academic innovation; development and evaluation by particular interventions; and practitioner enquiry by tangible classroom issues. The major challenge for national governments and other stakeholders relates to the prioritisation of applied research.

A two-level approach to the prioritisation of applied research might be considered.

First, conventionally, there will be issues of national priority which rise and fall depending on circumstances, consultation and political judgement. ESRC's 'research challenges' and deliberative mode funding initiatives reflect this context. Whilst such a model of priority-setting and funding provides good opportunities for research entrepreneurs, the accumulation of knowledge is not always well served and the lag between research commissioning and outcomes becoming available is a routine frustration.

Second therefore, there is a case for strategic prioritisation of longer term applied research investments on more enduring issues – from which rapid responses to immediate priorities could then be derived. The establishment of such issues is a conceptual challenge as well as a practical one, but the idea reflects the fact that many educational issues recur in prominence because of the structural challenges of educational provision. Some examples might be: how to enhance learner performance and opportunities; how to foster teacher expertise together with appropriate accountability; how to provide effective schools for all; how to frame curriculum and also enable learning; how to monitor system performance without distorting educational provision; how to deploy educational resources in the most cost effective ways; etc. The three research centres recently funded by DCSF are examples of relative long-term funding being provided on comparable topics. These centres should thus, in principle, be able to contribute to short-term priorities as well as taking a longer-term perspective on the issues on which they focus. In the USA, also accepting that some issues require long-term, cumulative study, the National Science Foundation has been developing the notion of 'cycles of innovation' to guide strategic commissioning.

There are examples of particular universities taking a lead on specific issues, and this could be taken further. For example, Bristol has a long-established focus on 'culture, learning and identity in organisations' and King's College, London has been a centre for studies of maths and science education for many years. Longer-term specialisation may also become more likely with the integration of education and social science research – and illustrated by the Centre for Effective Education at Queen's University, Belfast, and the Welsh Institute of Social & Economic Research, Data & Methods in Cardiff.

The funding of longitudinal studies was felt at SFRE to be particularly valuable because of the exceptional track record of such work in providing high quality evidence in relation to lifecourse experiences and outcomes. However, it was also regarded as being vulnerable to short-term decision making.

Practitioner research and enquiry is understood to have a significant role in enhancing professionalism and expertise but has hitherto suffered from considerable instability in funding from some national bodies. If the potential is to be realised of England's National Teacher Research Panel, of Northern Ireland's commitment to 'Teaching: the Reflective Profession', of the Chartered Teacher scheme in Scotland and of the Welsh Pedagogy Initiative, then teacher research must be fully integrated into stable and progressive professional development systems.

NIERF

The Northern Ireland Educational Research Forum was established by the Department of Education in early 2008, in an effort to build links with the wider educational research community and to address the fragmentation and connectivity problems that exist in Northern Ireland with regard to educational research. Participants at the NIERF opening event recognised that each community, sector, department or organisation had its own set of priorities and methodologies which are fit for their own specific purpose(s). However, they also recognised the need to work towards a shared knowledge creation framework. Due to a variety of factors, such as change in personnel, the economic downturn and priorities over restructuring (the Education Skills Authority), the initial momentum associated with NIERF has been constrained during 2010. **www.deni.gov.uk**

WERN

A recent example of collaboration between all who share responsibility for educational research at country level was the Welsh Education Research Network (WERN). WERN was supported by the Welsh Assembly Government (WAG) via the Higher Education Funding Council in Wales (HEFCW), and the ESRC. This network was successful in building partnership between all HEIs in Wales to build capacity in education research. For example, in March 2009, the Director of DCELLS, the Chief Executive of HEFCW and representatives from all institutions spent a day in mid- Wales talking about the priorities for future education research development in Wales. WERN's funding ended in July 2009. **www.wern.ac.uk**

DfE Research Centres

The DfE (formerly DCSF) has identified a need for a strategic approach to developing the knowledge base in three distinct areas, where existing evidence is limited or fragmented, or which will particularly benefit from an integrated approach to analysis and understanding. To meet this they have established three new research centres to build on the valuable work of previous centres: childhood wellbeing; understanding behaviour change; and youth development and transitions. Each centre has been designed to deliver an integrated programme of research within their subject area, providing short term analysis/review and longer term projects. They work closely with policy and analytical officials in the Department, support both policy thinking and the development of evidence and understanding. The work of centres has England as its principal focus, but draws on international data and experience for comparative purposes and methodological expertise. **www.education. gov.uk/research**

Strategic thinking of this sort, whether for a shorter or longer time horizon, needs very careful consideration and, with overall scarcity of funding, there is a strong case for mutual awareness between funders. This is the argument for re-establishing a 'Funders' Forum' or some other form of regular liaison to maximise the effectiveness of investments in each country and across the UK as a whole. Of course, such deliberation would need to be informed by those with relevant expertise, and close engagement with key stakeholders and constituencies could improve the legitimation of priority-setting and commissioning processes for applied research.

In summary, SFRE participants agreed that the use of evidence to inform decision-making in policy and practice makes an essential contribution to the work of responsible policy-makers and practitioners within UK democracies. However, it was recognised that UK educational research originates and is planned in a wide range of relatively local conditions. Specific initiatives reflecting national priorities for applied research have an important place but would benefit from being related to and informed by longer term funding of work on underlying enduring issues.

Recommendations
Origination and planning

1. Governments and their agencies in each UK country should aim to support both responsive and prioritised research, recognising their complementarities in achieving both innovation and quality.

2. Strategic thinking about applied research should consider UK provision for long-term research on enduring issues as an effective way of providing evidence on immediate priorities, as well as enabling more sustained scientific development.

3. In establishing research priorities, there should be greater liaison between funders and stakeholders to improve the effectiveness and legitimacy of decisions.

The Effective Provision of Pre-School Education project
EPPE is the first major European longitudinal study of a national sample of young children's development (intellectual and social/behavioural) between the ages of three and seven years. To investigate the effects of pre-school education for three and four-year-olds, the EPPE team collected a wide range of information on over 3000 children, their parents, their home environments and the pre-school settings they attended. This work underpinned the Sure Start initiative in England and has been influential across the world. An extension, EPPE 3-11, followed the same children to the end of primary school (Key Stage 2, age 11) and explored the enduring impact of pre-school and early learning experiences. EPPSE 16+ follows the same group of students through their final year of compulsory school and into their post school educational, training and employment choices. http://eppe.ioe.ac.uk

Unlocking Learning? Towards Evidence-informed Policy and Practice in Education

B. Creation and production

Discussion at SFRE II built on distinctions among several types of research which, despite definitional qualifications, were identified within SFRE: disciplinary research; applied research; development and evaluation; practitioner enquiry. Relationships between theory and practice, research and application are played out within all types of enquiry and they are each associated with particular communities of practice, networks, literatures, ways of working and forms of social organisation.

Disciplinary research is valued for its role at the cutting edge of international, specialist knowledge and the commitment of disciplinary experts to knowledge for its own sake and to the development of analytic tools was appreciated. However, it was noted at SFRE that many research questions in an applied and increasingly wide-ranging field like education called for multi-disciplinary collaboration and produced 'imports' of expertise to educational study. Going further, to inter-disciplinary synthesis, was recognised as being worthwhile, but even more challenging. In higher education, the creation and production of such work is vulnerable to significant distortion because of the high ascribed status of specialist knowledge. This generates perverse incentives for both institutions and individuals who seek to generate holistic understandings of educational issues.

Applied research reaches towards contemporary and contextualised issues. It may draw on disciplinary understanding, methodologies or tools but directs them to specific, grounded purposes. In this way, applied research is often more national in its scope, with international comparison just sometimes used to highlight similarities and differences. A particular feature of the last decade, led by TLRP among other initiatives, has been the movement to involve potential end-users of research in such work at very early stages. Advocates of such user engagement envisage involvement from conceptualisation onwards and it is argued that this increases both the validity of such work and its eventual impact. Funding for applied research has been significant in recent years, with substantial support from governments, ESRC and charities. However, pressure for relevance and, more recently, for impact has been intense. The tension between taking research issues from others for investigation and striking out more proactively and independently remains real. The role of ESRC's responsive mode funding is particularly significant for the latter.

Evaluative and developmental research is often focused on particular initiatives and essentially describes summative or formative processes of evidence-based review. Given the scale of new educational developments in the last decade, this has been a rapidly expanding area of research activity and demand has been satisfied by a wide range of organisations including those in the private sector. Those commissioning such work often have a particular need for evidence in respect of piloting initiatives prior to scaling up or for measurement of outcomes. However, there is also a risk of evaluation becoming merely procedural. In this respect, it was suggested at SFRE that the development of more selective approaches to evaluation would be appropriate. Depending on the investment, proportionate judgement might be exercised in respect of piloting, cost-benefit analysis, decision-making, review and measuring value.

Practitioner research and enquiry is a very important way of supporting the development of professional expertise amongst teachers. Such work tends to be focused on specific, local contexts and derives particular value from the authenticity which often results. International evidence on the efficacy of such activity for professional learning, especially when conducted collaboratively, is strong. This has led to the development of initiatives in particular sectors, such as those by the TDA, UK GTCs, LSIS and HEA. Much intrinsically worthwhile practitioner enquiry is not made public for quality assessment and analysis across case-studies with high levels of variability in circumstance and research process is intrinsically difficult. However, the quality of insight and developmental power of practitioner enquiry explain the international reputation which the UK has developed for such work – despite an overall lack of continuity in such initiatives over time.

In SFRE II there was considerable discussion about provision and support for these types of research activity within the major educational sectors of each UK country. Examples of impressive provision have been provided in SFRE Country Reports (see Section II and www.sfre.ac.uk). However, even on this incomplete mapping exercise it is apparent that some countries have limited capacity and provision for research of these types. It is arguable that disciplinary research is best seen as an international activity, with cutting edge exploration of evidence and ideas across the world – though countries with limited disciplinary expertise are unlikely to be able to tap into such work without seeking external support. In respect of applied research, development and evaluation and practitioner enquiry, countries seeking to establish robust systems for evidence-informed decision-making are likely to want to audit and monitor their provision carefully. Trusting to innovation and diversity in the generation of new applied research has a strong rationale, but limited funding strengthens the case for strategic prioritisation.

A recurrent theme at SFRE meetings concerned the relationship between the infrastructures of teacher education in each UK country and those of educational research. For many years, there have been organisational, intellectual and financial synergies between these two activities. For instance, teacher education provides important access points for practice-oriented researchers and research contributions enrich the quality of teacher education courses. The outcome of the 2008 RAE showed a wide range of institutions with strength in both areas of activity. However, such contemporary achievements increasingly rest on high degrees of internal role differentiation, with teaching and research staff operating in separate spheres. Many research-oriented departments are also extending their range of social scientific activity, so that the focus on education and synergies with teacher education are weakened. Participants at SFRE, particularly those with specialist knowledge, believed that contemporary trends were weakening the synergy between research and teaching in education. Whilst the concern tended to focus on changes in research policies weakening teacher education provision, it is also the case that changes in teacher education policy, for instance, weakening the role of HE, could have unintended consequences for educational research and thus for UK systems as a whole..

In summary, it was felt important to recognise that there are different types of research, albeit sometimes interlinking and overlapping, each with its indispensable contribution to a mature education system. The diversity of this research infrastructure should be supported.

Recommendations
Creation and production

4. Stakeholders in each country should regularly review provision for each of the major types of research in each key sector within their education systems and should consider the conditions which enable or constrain their development.

5. Collaboration among educational researchers in different areas and types of research should be encouraged, together with sustainable initiatives and incentives to promote more multi-disciplinary and inter-disciplinary research and methodological innovation.

6. The active promotion of user engagement in applied research should continue.

7. Developmental and evaluative research should be used in proportionate ways for piloting, cost-benefit analysis, decision-making, review and measuring value in respect of major investments.

8. Practitioner enquiry should be an integral, long-term part of provision for professional formation, development and knowledge creation in all educational sectors.

York Consulting
York Consulting offers applied, evaluative and developmental economic and social research services across UK public and private sectors. A multi-disciplinary team of consultants specialises in three thematic areas: education, children and young people; learning and skills; and regeneration. Clients include national government departments, government agencies, local government, private companies and voluntary organisations. Particular services provided include policy analysis, impact assessments, surveys, event facilitation, costing studies, business planning and performance measurement. www.yorkconsulting.co.uk

LSIS Excellence Gateway
The Learning and Skills Improvement Service Excellence Gateway has been provided with the aim to ensure that the further education sector has access to evidence that will support improvement in teaching and learning. The Gateway attempts to bring a range of online resources for further education staff together on a single website and a number of existing further education websites have been migrated to the Gateway. It is intended. Priorities are to: support practitioners in the sector to do research and increase their capacity as researchers on the frontline; support the sharing of professional expertise and translate relevant research findings into practical messages for the sector; provide LSIS with an evidence base on what support the sector needs; and raise the profile and value of research in the sector. www.excellencegateway.org.uk

UCET
The Universities Council for the Education of Teachers acts as a national forum for the discussion of matters relating to the education of teachers and professional educators, and to the study of education in the university sector and contributes to the formulation of policy in these fields. Its members are UK universities involved in teacher education, and a number of colleges of higher education in the university sector (quoted from UCET website). As part of its mission, UCET champions the role of research in enhancing the professional status of educators throughout the UK. Recent initiatives included a research prize open to practitioners working in education settings who conduct research that supports CPD for teachers and other educators; scholarships to allow full-time academics at UCET member institutions at an early stage in their careers to investigate aspects of teacher education or undertake educational research in overseas universities; and an annual conference showcasing recent research on teacher education. **www.ucet.ac.uk**

C. Assessment and validation

Discussion of the assessment of research and validation of research knowledge pervaded many SFRE discussions. The perspectives of a wide range of stakeholders were considered, from peer review of research outputs, to funder evaluation of completed research and to user selection of research evidence for practical purposes.

In discussion of the assessment of research quality, there was a high level of agreement at SFRE that general criteria concerning quality needed interpretation when applied to particular types of research. Thus the quality of a survey, teacher-led enquiry, ethnography or randomised controlled trial should be judged in relation to appropriate methodological standards. A wide range of research approaches was valuable in illuminating different aspects of education, but all approaches should be open to appropriate challenge.

A detailed review of criteria and procedures for the assessment of education research quality in a wide range of contexts emerged from discussions at SFRE and was commissioned by the TLRP. The review focused on assessment in publication, funding and investment contexts, but also touched on everyday assessments (for example for use, for review, or for educational and degree-awarding purposes) (Oancea, 2009).

For the higher education researchers present at the SFRE events, research assessment was a reality of their working lives, particularly as the three SFRE events coincided with the RAE 2008 cycle of submission, assessment and outcomes. Indeed, consultation and debate about the next formal exercise, the Research Excellence Framework, followed soon after.

Discussion took place at SFRE on a BERA/UCET report on the impact of RAE 2008 on education research units (Oancea et al, 2010). This noted the mixed outcomes of the exercise for most departments in the country, in terms of prestige, environment and finances. Many of these outcomes had been positive, for example, in terms of stimulating stronger research cultures, particularly in units that benefited from a supportive relationship with the wider institution, in which they were based. However, for a lot of departments the exercise had been followed by challenging times, particularly in the context of economic crises and financial cuts. The forthcoming REF was perceived by staff in education departments across the four countries as similar to the RAE in most respects, with the exception of an increased, and contentious, emphasis on research impact.

Whilst formalised research assessment was inevitably an important concern for higher education participants to SFRE, other constituencies placed much less weight on such results and on their implications. For them, what was crucial was the selection, weighting and interpretation of evidence, including research evidence from higher education and from other sources, for practical purposes. Fitness for purpose was seen as crucial in the process of distinguishing between essential information and "noise" in a particular decision-making context. Academic criteria of quality, used in the peer review system, were important in this process. However, if they were to inform the process of making decisions about research use, they themselves were felt to need translation and interpretation for a range of audiences.

A tension was often mentioned at SFRE meetings in relation to academic work. Commitment to working with partners to address practical problems was juxtaposed with the demand to maximise the volume and quality of conventional academic outputs - in particular, journal articles. Dissonance was also noted between academic and user evaluation of education research knowledge, underpinned by sometimes divergent sets of values, criteria and standards. There was a strong feeling that future methods for the allocation of core research funds in higher education should to ensure that they do not unwittingly damage the stability of the research infrastructure and generate perverse incentives in relation to academic behaviour.

EERQI

The European Educational Research Quality Indicators project (2008 to 2011) is being funded within the EC 7th Framework Programme for Research. Within its overall goal of contributing to the reinforcement and enhancement of the worldwide visibility and competitiveness of European educational research, the project works towards developing new indicators and methodologies to determine quality of educational research publications and new multi-lingual technologies (including a dedicated search and query engine) to support quality assessment of research in Europe. The intermediate results of the project will be discussed at a two-day event in Geneva, in September 2010. "All in all, the EERQI consortium agrees on the position that effective procedures of assessing research quality in future will have to apply a combination of methods, not a single (set of) indicator(s)" (quoted from the EERQI website, **www.eerqi.eu**).

TLRP

The Teaching and Learning Research Programme (ESRC), the UK's largest programme of educational research, explicitly aimed to fund projects which combined high relevance and excellent social science. This was reflected in commissioning, annual reporting, programme activity and final evaluation of all investments. Relevance was promoted through high levels of user engagement from practitioners in research sites and from key players in national bodies. Practitioners strengthened the authenticity of the work and lent credibility, whilst close links to organisations with developed communication infrastructures and influential roles provided the foundation for effective impact strategies. ESRC evaluation of TLRP projects revealed no loss of scientific quality from such engagement and, indeed, it is arguable that the validity of the studies was increased. Impact was certainly much more effective where high levels of constructive user engagement existed. TLRP, as a coherent, managed programme, was able to achieve considerable congruence between its aims, processes and criteria for assessment. Where misalignment occurred, particularly with interpretations of RAE requirements, the power of academic imperatives diluted attempts to maximise relevance. **www.tlrp.org**

Similar issues apply to the assessment and validation of research activity from beyond the academy - from practitioners, public agencies, think-tanks, voluntary sector organisations, independent researchers, consultancies and, sometimes, government departments – where the evidential basis of such work is not peer-reviewed or otherwise fully open to public scrutiny. Indeed, expectations in respect of theoretical and methodological transparency, publication and critical evaluation vary considerably - but public awareness of such variation was not felt to be great. There was thus a concern at SFRE that many users might not readily be in a position to assess the quality of evidence with which they might be presented.

Recommendations

Assessment and validation

9. Criteria applied in the assessment of research quality should be appropriate for the research approach under consideration.

10. Work should continue on how to better align public aspirations for the relevance of applied research and academic criteria for its assessment and validation.

11. Producers of published research which is not subject to peer-review should provide sufficient methodological detail to enable critical assessment and validation of the work.

Excellence in applied and practice-based research

The discussion of quality in applied and practice-based education research in Oancea and Furlong (2007) noted a difference between aiming for better performance in public assessments of quality (accredited on the basis of agreed quality criteria) and cultivating intrinsic excellence in both research and practice (MacIntyre, 1985). The authors suggested a more holistic understanding of research "excellence" that included epistemic (demonstrable knowledge), practical (virtuous action in the public space) and technical (skilful production and performance) considerations. The three domains were seen as complementary, within a wider concept of ethical action towards the "human good", which the authors placed at the core of applied and practice-based research. The framework proposed by Furlong and Oancea was referenced in the RAE 2008 documentation and in a range of other policy and research documents. A seminar series organised by Gary Thomas with TLRP support in 2005 had also occasioned discussion of the issues surrounding quality assessment of research in education, including a first version of the Furlong and Oancea framework (see Macnab and Thomas, 2007).

OfSTED

The OfSTED brings together the experience of four inspectorates to regulate and inspect – and a large amount of data is produced as a result. As well as reports from inspections of institutions, OfSTED publishes a wide range of thematic reports, aggregated statistics and consultation outcomes. Information is presented specifically in relation to parents and carers, children and young people and adult learners and employers. In respect of the latter, OfSTED's 'Good Practice Database', accessible from the LSIS Excellence Gateway, is an example of professional advice being fed back to a sector based on inspection experience. **www.ofsted.gov.uk**

D. Collection and interpretation

Discussion of the collection and interpretation is distinct, but linked, to consideration of mediation and brokerage – the focus of the following section. We therefore begin with clarification of the meaning we use for these terms.

By collection, we simply mean that research findings, analyses and resources must be accumulated, catalogued and made accessible. Libraries, databases and websites do this job.

By interpretation, we highlight the need for research evidence and analysis to be reviewed, evaluated and integrated in methodological, theoretical and substantive terms. In particular, high quality work must be synthesised with pre-existing understanding.

Such knowledge then has to be mediated and communicated through targeting particular audiences. Typically, this involves specialist work in different education sectors.

The UK has a wide range of both physical and electronic collections of research evidence. These include conventional libraries and archives on the one hand and data-bases, repositories and new media on the other. For example, in the case of school-level research in England there are significant libraries at NFER, the Institute of Education in London and at many other universities. These collections service researchers and students in particular, but also support a wide range of other users through open-access agreements. Data-bases and repositories tend to be designed with more specific audiences in mind. The British Education Index (BEI) is the most established academic resource for journal output and maintains high quality control. Its focus is on peer-reviewed work and most grey literature is excluded (though there is a significant collection for conference papers). However, BEI also provides services for several other e-resources serving different audiences – including, in particular, the Educational Evidence Portal. EEP presents material, often grey literature, from a defined set of organisations, each self-nominating content and declaring their own quality control procedures. Developed from 2004, EEP is targeted mainly at users of research. Current Educational and Children's Services Research in the UK (CERUK) provides information on current research projects which have not yet reported.

Four points can be made about such resources for the collection and presentation of educational evidence for use. First, UK users have to negotiate a variety of different sources to access books, academic journals, websites and grey literature. Whilst partially overlapping, these resources are not integrated and particular search and referencing systems have to be learned. Second, access is partially restricted because of funding models. The outstanding example of this is the BEI which, although offering very high quality information, is only available on subscription. Although open to most UK higher education users, it is inaccessible to most other educational organisations, to the media and to the public at large. Third, funding for BEI, EEP and CERUK is understood to be short term and library budgets are also under constant scrutiny. Even the limited infrastructure described above is therefore insecure. Finally, existing provision appears to be strongest in relation to England, and particular attention is required to draw on and support the assets of Northern Ireland, Scotland and Wales.

There is thus a strong case for the consolidation of selected major UK assets, including BEI, EEP, CERUK, the Newsam Library and other major national libraries into a UK Education Information Service. Such a service might be modelled on the US ERIC. This is a freely available, reference database providing on-line access to a comprehensive range of public material on education. It currently contains over 1.3 million records and is a core resource for US educational organisations, bodies and initiatives. Achieving and sustaining a cost-effective, integrated, open access and user-friendly Education Information Service is essential if the use of evidence in policy and practice is to grow. Such services might be regarded as foundational for policy, practice and democratic deliberation. SFRE has commissioned a technical trial of this. However, significant

BEI
Dating back to the 1960s, the British Education Index supports the professional study of education by facilitating the identification, interpretation and appropriate use of journal articles, conferences and conference papers, research reports and electronic texts – but not books. The BEI comprises over 180,000 records, including Education-line, a subject digital repository originally set up with funding from JISC. BEI supports almost 70,000 search runs each month from 114 UK subscribing institutions, and provides services to EEP, TTRB and other brokerage organisations. BEI is currently self-supporting, via subscription, and is managed by the Library of the University of Leeds. **www.bei.ac.uk**

CERUK
CERUKplus is a free, online database of current and recently completed education and children's services research in the UK. Funded by the Department for Education (England) and the NFER and run by NFER, it covers research by higher education, private and independent researchers and practitioners, individual PhD studies, as well as long term, large-scale research such as national surveys. Information for the database is directly from researchers and funding and research organisation, and via trawling of relevant web sites. CERUK's website also offers a 3-D map of selected research-informed on-line resources for education professionals. **www.ceruk.ac.uk**

EPPI-Centre
The Evidence for Policy and Practice Information and Co-ordinating Centre, initiated in 1993, is part of the Social Science Research Unit at the Institute of Education, University of London. Funded by the ESRC, several government departments and charities and other partners, the Centre conducts systematic reviews in education, health promotion, employment, social care, crime and justice. The Centre hosts an online evidence library that provides access to completed and ongoing systematic EPPI-Centre reviews and to all the key-worded references that had been included in these reviews. The Database of Education Research currently contains approximately 3000 records. The centre also provides training in systematic research synthesis methods for education and develops tools and materials to support those undertaking reviews in education. The EPPI-Centre sees knowledge synthesis as a wide concept encompassing a range of strategies aimed at critically integrating contributions to knowledge from all perspectives on research, on all research questions, arrived at with any methods of primary research, and using any methods of systematic review. Fitness for purpose is seen as crucial to a good research synthesis. **www.eppi.ioe.ac.uk**

progress would require cooperation amongst the organisations involved, leadership from government bodies and support from initiatives such as the Coalition for Evidence-based Education (CEBE) and the multiplicity of stakeholder organisations which would benefit.

The classic process of research interpretation in the academic world is by expert review. This is apparent through the national and international reputations which are established by many UK researchers. Specialist journals and handbooks containing review papers provide vehicles for such work and conventions for judging, reporting and interpreting particular types of evidence have been established for decades as forms of scholarship. Such interpretation facilitates comparison with existing frameworks of understanding and the testing or development of theory in expert ways. The interpretation of evidence, whether by academics or research users, was viewed by SFRE participants generally as being essential for the complex issues with which educational research is routinely concerned.

In recent years, reliance on expert judgement and peer review in education has been complemented by systematic review procedures which adopt explicit criteria for judging inclusion and quality. The EPPI Centre has led on ways of evaluating and synthesising both quantitative and qualitative research, thus maintaining an appreciation of the complementary contributions of different research approaches. Best Evidence Syntheses from New Zealand have made a considerable impact and the University of York's Institute for Effective Education is now offering a similar facility drawing particularly on the strengths of US research. The latter include the work of the Institute for Education Sciences and the What Works Clearinghouse. When such systematic syntheses of knowledge are comprehensive, rigorous and fit for purpose, then they have considerable potential to improve the effectiveness through which policy-makers and practitioners gain access to evidence. Syntheses can also highlight gaps and uncertainties in existent research, substantively, theoretically and methodologically. Balanced open-mindedness is needed however, for narrow interpretations of appropriate forms of research data, design or analysis may limit substantive insights and theoretical and methodological progress.

These examples illustrate what is possible in relation to the interpretation and synthesis of knowledge, but UK provision is limited and fragile in relation to the scale of education services and potential demand. Classic forms of academic review have been under pressure for some years because of the high status of generating research project income in academic career development and the relative lack of incentivisation of scholarship. In relation to systematic reviews, coverage is limited and the development of new services is very welcome. School matters such as basic literacy and numeracy tend to be better catered for than other topics, and there are significant capacity issues in particular countries within the UK and in relation to some sectors, disciplines and issues. The result is a tendency to draw on international evidence which may or may not be applicable in local contexts for practice in the UK.

From the user perspective, there is a lack of clarity over the status and roles of organisations offering evidence services. Some are primarily concerned with the collection and presentation of knowledge, some with interpretation and synthesis and others with mediation and communication. These analytically distinct roles are also sometimes, but not always, combined. Nor is the quality of evidence and interpretation being provided always clear to users.

The implication which has sometimes been drawn is that such concerns could be addressed by the establishment of a single, centralised 'Evidence Centre' for research syntheses and advice on policy and practice, either for England or the UK as a whole. Such proposals often cite both US examples and that of the National Institute for Health and Clinical Excellence (NICE).

Deliberations at SFRE suggest that such an initiative may be a step too far in education at present. First, the significance of values in educational decision-making combined with the diversity of research approaches suggest that any organisation aspiring

to offer centralised prescription in education could potentially be even more controversial than NICE has been in medicine and health care. Second, progress in engaging practitioners with education research and enhancing professionalism could be seen by some as being undermined by establishing such a centre – as substituting one form or centralised control with another. As indicated in discussion of SFRE principles, the aspiration that judgements in policy and practice might be 'informed' by evidence is more realistic, respectful and accurate than the claim that 'what works' can be prescribed in this field. Nor would even a staff of over 400 and a budget of £60m, as NICE enjoyed in 2009/10, overcome such realities – though high potential cost, a third ground for caution, is a consequence of attempting to establish a centre with such high aspirations. Finally, the range, diversity and vitality of mediating and brokerage organisations represented at SFRE suggest that national, distributed and sectoral solutions might be more appropriate where recommendations are to be made – as modelled, for instance, by Learning & Teaching Scotland or C4EO. Commercial providers are also active in this area and may be a source of future provision in the light of public sector cut-backs. It is thus not self-evident that a NICE for education could be effective or afforded – or is needed.

Yet, the range and complexity of information sources is certainly an issue which demands attention.

If there is to be formal endorsement of any new form of information resource for educational evidence, then strategic positioning and competition between institutions, service providers or other interest groups should be expected both within and beyond the academy. Leadership in commissioning from an appropriate government body might be very important.

Recommendations

Collection and interpretation

12. Those responsible for major UK-wide resources for the collection of evidence about education should be encouraged to explore consolidation to provide a sustainable, cost-effective, comprehensive, publicly accessible and user-orientated 'UK Education Information Service'.

13. In relation to knowledge interpretation and review, the value and complementary roles of academic scholarship and of synthesising organisations should be affirmed and incentivised where appropriate.

14. The aspiration to establish a single, centralised evidence organisation for education, comparable to NICE and offering recommendations for policy and practice, should be regarded as a step too far.

The Educational Evidence Portal

The Educational Evidence Portal (EEP) is a collaborative project of over 30 organisations primarily in England and has developed since 2004. It aims to provide access for professionals to a range of research and evidence materials held in online sources. There are currently two ways to search for evidence through EEP - a web search covers documents on the sites of a wide number of organisations; and a database search interrogates a collection of Individual documents selected by a subset of organisations. These are indexed (or meta-tagged) by British Education Index to provide a more refined search. EEP aims to cover all areas of education and training. EEP is developing a taxonomy of terms and a UK 'map' of evidence resources. EEP is supported by a consortium of organisations, led by CfBT. **www.eep.ac.uk**

NICE

The National Institute for Health and Clinical Excellence was established in 2004 and receives core funding from the Department of Health in England. It provides guidance, sets quality standards and manages a national database to improve people's health. NICE makes recommendations to the NHS and other organisations on: new and existing medicines, treatments and procedures, treating and caring for people with specific diseases and conditions and how to improve people's health and prevent illness and disease. NHS Evidence, launched in 2009, allows NHS staff to search the internet for up-to-date evidence of effectiveness and examples of best practice in relation to health and social care. NICE works with experts from the NHS, local authorities and others in the public, private, voluntary and community sectors – as well as patients and carers. It aims to make independent decisions in an open, transparent way, based on the best available evidence and including input from experts and interested parties. **www.nice.org.uk**

C4EO

C4EO (Centre for Excellence and Outcomes in Children and Young People's Services) aims to identify, co-ordinate and disseminate national, regional and local evidence about systems and practice on five themes: Early Years; Disabled Children; Vulnerable Children; Safeguarding and Child Poverty - with three further themes planned (Youth; Schools & Communities; Families, Parents and Carers). C4EO outputs and services include scoping and knowledge reviews on particular topics, progress maps (interactive web-based tools to help professionals access and apply evidence from the knowledge reviews), specialised multimedia outputs, regional knowledge workshops and programmes to support local capacity for improvement. **www.c4eo.org.uk**

E. Mediation and brokerage

Mediators link and enhance communication within the many overlapping communities with an interest in education research - including practitioners, professional bodies, civil servants, local government officers, politicians, third sector organisations, inspectors and so on. Effective research mediation was perceived by many SFRE participants as not only an attribute of a good research environment in higher education, but also as indicator of a well-functioning, evidence-informed democracy.

At SFRE there was considerable appreciation of the exceptional efforts which have been made by various government agencies and other organisations to broker and promote the use of evidence in each country, often in relation to particular sectors. Examples reviewed included provision at DCSF, LSIS, the HEA, Teaching and Learning Scotland, TDA, TTRB, NCSL and the GTCs in Scotland, England, Wales and Northern Ireland. WERN's impressive mediation of TLRP findings in Wales was also noted. C4EO was identified as a significant model for the brokerage of research to practitioners, and organisations such as CUREE were similarly recognised for its wide-ranging innovation in linking research and practice. It was acknowledged however that, despite all these efforts, overall UK provision was not comprehensive and of consistently high quality. Further, there was a perception at SFRE that more high quality research existed, generated both within the UK and across the world, than was routinely drawn upon to inform education policy and practice. The role of mediators and brokerage agencies is thus vital. However, the reality is also that the extent of resources available for mediation and brokerage by publicly funded bodies is likely to be much more limited in future. Even with a possible expansion of private organisations, the need for increased capacity to support the use of educational research is thus likely to remain considerable.

Perhaps reflecting the history of its development, overall UK provision for brokerage, mediation and communication of research might be described as fragmented – certainly if analysed in sectoral terms within each country. And yet it reflects authentic development in response to user needs and stakeholder interests. In contemporary circumstances, this situation is unlikely to change and, indeed, to seek to build upon it may be the most viable strategy available.

In responding to this situation and to maximise access and use, the UK information landscape, including all mediation, brokerage and communication bodies, needs to be systematically mapped and described through a public internet portal – a task which has already been initiated by EEP and which could become part of a comprehensive UK Education Information Service. If funds allowed, a linked, library-based evidence advisory service might also be established, similar to that successfully provided for TTRB by the Newsam Library. Such a website and advisory service could maintain comprehensive information on the available UK and international resources, including data on the range of content, selection criteria, provenance and intended audiences. Thus, for relatively modest cost, significant value could be added to services which already exist. The sustainability and accessibility of such a portal would need to be assured as part of a public service commitment by sponsoring organisations.

Given the ebb and flow of funding and commitment in respect of mediating initiatives, it is also the case that publicly-funded resources are often at risk of being lost to users. To retain such value, provision for harvesting and archiving should be made where appropriate. Materials from the English National Strategies and GTCE's Research for Teachers are examples of resources which have appeared to be at risk as following changes in policy.

SFRE participants felt that communication of education research should be an appropriately incentivised component of academic work. Many at the meeting described this as a moral responsibility towards research participants, beneficiaries and the tax-paying public at large. However, academic commitment to research mediation and the different set of skills required by this activity were seen by some

as significant potential difficulties. The persistence of these was partly linked to inadequate incentives, training and infrastructure, but also to the dominant forms of academic incentivisation.

In parallel however, the capacity of policy makers, practitioners and the media to effectively interpret and use research was seen as a significant constraint and sometimes led to distortion of research findings. Communication and cooperation between these groups, rather than working in relative isolation from each other, was seen as being crucial. Such collaboration needed to be approached with particular care when mediating bodies are explicitly funded by government. The development of protocols to frame such relationships was suggested.

In terms of processes, expectations of user engagement, co-production and dialogue between stakeholders at all research stages were seen as significant advances on simple 'knowledge transfer' or dissemination events. In relation to outputs, discussions at the forum highlighted the importance of tailoring writing styles and presentation formats to the full range of audiences. There were, however, tensions between simplifying to provide clarity and the risk of trivialising findings. Mediation was thus seen as an expert process, requiring good understanding of the epistemic, political and practical constraints operating in the relevant research and user communities. Whilst printed outputs were still valued for ease of use and might be targeted on key opinion leaders, new technologies were creating many opportunities for large scale electronic distribution.

Recommendations

Mediation and brokerage

15. The value, and limitations, of specialist research mediators and brokerage agencies should be recognised, particularly in relation to targeted sectoral or other audiences in each country.

16. A comprehensive map of the UK information landscape should be created to increase the accessibility of brokerage organisations and mediated research resources.

17. Universities, academics and other producers of research should make provision for effective communication and mediation of findings as an integral part of their work.

GTCE's Research for Teachers
Research for Teachers is a resource developed by CUREE for the General Teaching Council for England with the aim of supporting practitioners' engagement with research. The site offers thematically-organised "research tasters" consisting of "nuggets of evidence" followed by suggested enquiry activities based on the evidence, next steps to move practice forward, and references to further information. The materials prompt teachers to interrogate their practice and the available evidence, and supports them in gathering, assessing, and integrating research evidence in their practice.
www.gtce.org.uk/teachers/rft

GTCNI AARTS
GTCNI has supported the development of the Access to Research Resources for Teachers Space (ARRTS) which is an educational research database making relevant publications available to educational professionals "at the touch of a button". The database has been developed to promote evidence-informed practice and policy-making in education and encourage a partnership between the local educational research community and teachers. It also provides opportunities for teachers and other educational professionals across the world to access a large range of scholarly literature on Education in Northern Ireland and to find research that is relevant to their needs.
arrts.gtcni.org.uk

DCSF Research Summaries
The offfice of the Chief Adviser on School Standards Unit at the Department for Education produces a number of resources to review the latest research findings on school standards and related issues. These resources include a research newsletter for policy staff, practitioners, and teacher educators. 'Research Bites' are 90-second presentations with summaries of key research on practical classroom issues for practitioner audiences. 'Subject-specific Updates' are collective reports on all the research published in the research newsletters for a particular subject area (e.g. English, mathematics, science or ICT).
www.teachernet.gov.uk

Professional Skills for Government
Within the Civil Service there is a Professional Skills for Government (PSG) competency framework. The set of core skills required for all Civil Servants includes Analysis and Use of Evidence. Within the Department for Education in England a training module has been developed in conjunction with analysts using relevant examples and experience. The training helps policy makers to effectively use evidence through identifying sources, assessing their validity; using evidence to evaluate; and working with experts to evaluate and communicate results. www.civilservice.gov.uk/about/improving/psg

F. Use and impact

By many SFRE participants, it was felt that large scale use of research findings and insights into practice had in recent years been largely dependent on government promotion and incorporation into education policy. However, this was subject to political considerations which were hard to anticipate or manage. Many academic participants were resigned to this, but nevertheless felt that contributions to knowledge were worthwhile in their own right.

From the perspective of practitioners, imposed requirements of any sort – whether evidence-informed or not – tended to be unwelcome. However, there were strong views concerning topics on which research would be valuable and also in relation to forms of communication and engagement. Given more opportunity, it was evident from SFRE that there are practitioners in all sectors who are both willing and able to make significant contributions as constructive critics, advocates, partners and researchers in their own right.

'Scaling up' was perceived as an important challenge for the implementation of evidence-informed policies and practices. It was considerably helped by sound evaluation of initiatives and by authentic consultation and participation with targeted groups, such as practitioners. Those at SFRE were aware of centrally-directed initiatives in education which had not achieved high impact because of inadequate piloting, evaluation, consultation and participation.

Impact on practice and policy was endorsed as an appropriate goal for much, but not all, educational research. In particular, a distinction was drawn between applied, developmental and evaluative research for which expectations of high impact seemed unquestionably appropriate. Disciplinary research may have more intrinsic qualities and aim to contribute to knowledge for its own sake. Practitioner enquiry of high quality would be expected to have high local impact, but to increase this requires specific forms of support for synthesis, communication and engagement in each national sector.

However, impact was not seen as a clear-cut concept.

At the level of the system, participants suggested that impact could encompass, for example, changes in practice, changes in policy, institutional changes, as well as enhanced public debate and increased public awareness of important issues. Some of these areas could be defined as research application; others, as diffusion of knowledge; others, as challenging established ways of thinking and acting; yet others, as contributions to informed practical judgment.

For individuals in practice and policy contexts, research evidence, however strong, rigorous and effectively communicated, does not simply compel to action. Rather it is filtered through judgments about aims and values, and balanced against other forms of evidence and incentives to action. Dialogue and partnership throughout the research process may enable shifts in the language used in public debates and in the assumptions shaping the use of research evidence. This may have implications for both the individual and the systemic levels. Simply bringing people together in a genuine conversation may, however, be difficult, given the particular constraints within which each community with an interest in education research operates. For this reason, initiatives such as the SFRE were felt to have an important role to play in establishing connections on which future developments may build.

ESRC, in submissions to SFRE, attempted to define three different types of impact. 'Instrumental impact' concerns direct influence on policy and practice; 'conceptual impact' contributes to understanding or to the framing of debates; 'capacity building impact' leads to development of technical or professional skills. Evidence of dissemination is not sufficient and there is a need to capture evidence of use and the processes through which impact occurs. ESRC has also changed its commissioning

TLRP Review in Wales
This project explored the implications of the findings from the TLRP for educational policy and practice in Wales. Coordinated by John Furlong, teams of researchers from across Wales reviewed findings from the TLRP in relation to four key areas of Welsh policy: the foundation phase; improving teaching for the 7-14 age range; social inclusion; and improving learning by taking account of learners' perspectives. In order to support research capacity development in Wales, each team included more and less experienced researchers from two HEIs. The outcomes of the reviews included a series of posters and of accompanying briefing papers which were made widely available to policy makers and practitioners across Wales. Also, two meetings brought together policy-makers and researchers to engage in conversation about interpreting research findings and linking them to the School Effectiveness Framework in Wales.

LTScotland
Learning and Teaching Scotland plays a key role in delivering education reform in Scotland – including significant involvement in Curriculum for Excellence and the implementation of Glow, Scotland's national education intranet. The aim of research activity in LTS is to facilitate and influence evidence-informed decision making that will improve learning and teaching in Scottish education. Advice is provided to Scottish Ministers on all matters related to learning and teaching, the curriculum, assessment and ICT. LTS works with partners to connect, co-ordinate and facilitate engagement and capacity building between key stakeholders in all sectors to ensure effective provision of research, professional development and the sharing of good practice. The Research Team produces a bi-monthly digest, Research Round-Up, that collates and summarises national and international educational research and statistical reports. **www.ltscotland.org.uk**

and evaluation procedures and post-award scheduling to enable longer term impact to be assessed. Key antecedents of high impact are seen to be excellent relationships between researchers and users at each stage of the research process.

As seen elsewhere in this report, SFRE participants appreciated such impact strategies. Effective user engagement, excellent communication and leadership in the use of evidence from both practitioners and professional researchers were common themes in discussions. However, barriers to achievement of such goals were also noted with, in particular, perverse career incentivisation and research assessment procedures favouring specialisation within the academic community. The alignment of academic commitment and institutional policies was thus felt to lag behind contemporary concern for impact – and many impact-related activities were not felt to be adequately resourced. Nor can the tension be easily resolved between shaping research activity and interpretation to current policy issues and maintaining academic independence within democratic contexts.

The assessment of research impact was thus seen as being highly complex. Indeed, valid and reliable measurement, in any formulaic way, was seen as being almost impossible. More is however becoming understood about the conditions and processes which would favour effective impact and it was felt that this might provide a more valid and reliable set of indicators with which to judge effectiveness.

Ultimately of course, new research findings and understandings have major impact only when they are interpreted and integrated into the personal knowledge structures of key audiences – such as practitioners, learners, policy-makers, journalists, parents, etc. Such knowledge structures are local, diffuse, personal and cultural. Impact and knowledge accumulation at this level is therefore relational and what we want to know something for alters our understanding. The distance between recognition of this type of impact and, for example, economic cost-benefit analysis as a means of measuring research impact is extremely long and the factors involved highly complex.

Understanding of impact, and provision for its measurement, are still evolving across the social sciences in the UK. At SFRE, measurement was regarded as an important issue, despite its difficulty. However, it was felt that peer judgement of the planning, provision and attempts made to achieve impact would probably yield a more dependable set of indicators than reviewing post-hoc narratives alone.

Recommendations

F. Use and impact

18. The expectation that those producing high quality applied research, development and evaluation should seek to maximise impact should be endorsed.

19. Practical and cultural barriers to the achievement of greater use and impact should progressively be tackled. This should include attention to personal and institutional incentives in higher education; the procedures, processes and funding expectations of grant awarding, commissioning and evaluating bodies; and the opportunities for and openness of users to engage constructively with researchers.

20. Systematic assessment of research impact should be approached with great care, bearing in mind the multiplicity of factors which can affect outcomes.

NTRP

The National Teacher Research Panel is an independent group of practising teachers and tutors who work to: ensure that all research in education takes account of the practitioner perspective; ensure a higher profile for research and evidence informed practice in government, academic and practitioner communities; and increase the number of teachers and tutors engaged in and with the full spectrum of research activity. Panel members participate in many national advisory groups and research steering committees. NTRP also published research-related resources, including the "Inside Information" newsletter. www.standards.dcsf.gov.uk/ntrp

DfE researcher development days

The English Department for Education is holding training and development days for researchers working in UK universities. The idea for the sessions is to provide researchers with training in how to write up their research with policy and practice staff in mind as well as to advise on utility by providing examples of the mechanisms on how specific studies have informed policy development. So far the initiative has helped to identify relevant research for policy that was 'outside the radar' of research already known to departmental staff and is helping to bring HE researchers and policy staff closer together.

Cambridge Primary Review

This 2006-9 review of primary education policy and provision in England, the first for over 40 years, collected evidence of many kinds – including research surveys, public submissions, policy mapping, community soundings and consultations with national and regional bodies. The volume of evidence was enormous. CPR reported formatively in a series of interim documents – each of which was presented to attract media attention. The Review generated widespread support among practitioners and considerable public interest. Although initially rejected by the DCSF, the interest generated appears likely to sustain the influence of the analysis. The combination of public engagement and high research quality are strong indicators of potential impact. www.primaryreview.org.uk

The Higher Education Academy

EvidenceNet is an HEA's service offering contemporary evidence on teaching and learning in higher education. A broad interpretation of evidence is used, ranging from case studies emerging from practices in particular settings to the outputs arising from large scale research projects drawing on qualitative and quantitative data. Resources, events and social networks support Evidence Net as a free, open-access service. www.heacademy.ac.uk/EvidenceNet

Section IV. Cross-cutting issues in evidence informed policy and practice

Reviewing the model of knowledge mobilisation as a whole, some recurring themes were apparent.

IV.1. Demand for research in education

We have noted the strength, across the UK, of commitment in principle to the use of evidence to inform policy, to support the work of sectoral providers and to enhance professional practice. In the case of policy and the organisation of provision, research is seen as making an important contribution to democratic debate, decision-making and implementation. In relation to practice, practitioner enquiry is felt to have a unique role enhancing contextualised judgement and professional development.

However, there was concern at SFRE that this commitment to the use of evidence is not always followed through. In particular, evidence which does not reinforce previously endorsed policy positions, institutional arrangements or established forms of practice is much less likely to be taken up and used. This may be caused by a lack of open-mindedness, but it also reflects that fact that, for users, research evidence is always in competition with other forms of understanding, pressures and constraints. If realised demand for research in education is to develop, one message for researchers is that the value of such evidence must continue to be promoted. In our democratic contexts, it is reasonable to expect more systematic use of research in decision-making and to question the social responsibility of decisions taken in the face of evidence. However, really strong demand for evidence is likely to derive only from strong user engagement and sustained demonstration of the practical utility and principled value of research. Many people and organisations have roles to play in achieving this.

IV.2. Supply of research in education

In this report and in SFRE deliberations generally, the strengths and weaknesses of research resources in each UK country were acknowledged to be very variable. England is by far the largest country and has overlapping providers in respect of most issues on which evidence is needed, whether from HE or the private or third sector. This is not the case in Northern Ireland and Wales, where HE research expertise in education is relatively small and concentrated. Private and third sector providers fill some gaps but the production of contextually specific evidence on the range of educational issues needed to by policy-makers, providers and practitioners is sometimes difficult in these countries. Scotland is poised between for, with more scale and strong educational and scientific traditions, it generates a significant supply of research evidence. None the less, it is likely that, if funds were available, all four countries would want to enhance the supply of contextualised research and evidence available to them.

However, those attending SFRE recognised that there is a rich supply of high quality original research being generated across the world as a whole. Academic processes of review and synthesis are used to evaluate and interpret such work and this is then available for consideration in national contexts. Whilst the difficulty of such re-contextualisation should not be underestimated, the development of common themes in international understanding is notable. There is a place for improving the harvesting of such work in relation to particular priorities so that application in national and sectoral contexts can be considered. Such processes would, of course, be far cheaper than initiating new projects.

Knowledge mobilisation in Canada
Canada has an established record of seeking to use research evidence in educational policy and practice. A critical mass of work has developed, initiated by health funders. The Social Sciences and Humanities Research Council of Canada now supports researchers to undertake empirical studies of knowledge mobilisation (see Cooper & Levin, 2010). This has informed initiatives to build the capacity of policy makers to make better use of evidence. In Ontario for example, The Evaluation and Research Learning Program, consists of six modules that equip ministry staff and managers with the knowledge and ability to use research and evaluation effectively for decision-making. An example of developing infrastructure to support practitioner engagement with research is Journal Watch (Gough et al, 2009). Here, a group of researchers and practitioners working in child welfare, search journals monthly and review them through videoconferences. They then prepare short reviews of exceptional articles that are shared with the broader community of child welfare researchers and practitioners across Canada, through an electronic newsletter. This group are essentially mediating research for a wider audience and potentially training both new researchers and practitioners in critical inquiry. A research programme in Toronto, Research Supporting Practice in Education, set up a 'Facts in Education' service aiming to correct significant factual errors about education that appear in the news media across Canada. A panel of experts use well established evidence to address the issues and provide further reading. For more information, see www.oise.utoronto.ca/rspe

Our thanks to Judy Sebba for the Canadian case.

IV.3. Fitness for purpose

At SFRE meetings, recognition of different types of research and enquiry was seen as being extremely important. In particular, it enabled particular contributions to be affirmed and it strengthened appreciation of complementarity. It was felt that failure to recognise such differences had, in the past, produced many unproductive arguments within the field and had contributed significantly to the external critiques of education research in the 1990s.

It was also acknowledged that different epistemological assumptions exist in relation to the generation and interpretation of knowledge. Rather than seeking to impose a single position, this was seen as a source of richness. In particular, the existence of difference, debate and challenge was appreciated as being essential to innovation, testing and the establishment of new understanding. Whilst this most obviously applied within the academy, openness to challenge was seen as being important in all fields of decision-making and professional practice.

To be constructive however, challenges needed to be appropriate in relation to research purposes and contexts.

IV.4. Quality

This theme pervaded all considerations, as it should. Indeed, the constant search for improvement is an indicator of all professional activity.

However, the field of educational research has characteristics which further justify the need for this awareness. In particular, it is extremely large and diverse. Thus, whilst there is no doubt that much world class research, development and enquiry takes place in the UK, there are also activities about which we can be less confident.

The same can be said for journalists and organisations concerned with mediation, brokerage and application. Here we find many who carefully weigh and evaluate evidence, but others who are more cavalier.

Scrutiny of the quality of evidence and its interpretation is thus intrinsic to all aspects of knowledge generation and mobilisation.

IV.5. Capacity

UK capacity to conduct high quality research was felt to be significant as a whole, but to be vulnerable in relation to the age profile of many researchers and availability of some skill sets. Within Wales and Northern Ireland in particular, there was recognition that the number of active educational researchers was limited and could not always meet appropriate demand.

The capacity of user organisations to commission, evaluate and apply research was a second strong theme. Expertise was often highly concentrated in key individuals and it was not clear whether such capacity was always fully institutionalised. More training and support in developing expertise and resilience were considered to be important.

Existing mediation and brokerage in relation to specific, sectoral audiences in each country was affirmed at SFRE – much of which was provided by private or third sector bodies. However, this capacity was patchy and ways of enabling further provision and promoting that which existed were felt to be worth developing.

IV.6. Diversity and core enabling services

The SFRE model of knowledge development and mobilisation enables reflection on the roles of different institutions and initiatives in each county. Participation in SFRE has increased awareness of the inter-dependence of different elements and a number of new initiatives have emerged in each country. Not all, of course, will survive forthcoming financial cut-backs.

The process of SFRE itself demonstrated the commitment and creativity which exists across the UK in relation to the development of provision for evidence-informed policy and practice. The establishment and work of organisations such as EEP, TTRB, ARTTS, WERN, LTScotland, LSIS, C4EO, GTCE, GTCS, etc, etc, are very impressive – and there are many more.

Such initiatives reflect the diversity of the post-devolution UK and are sectorally responsive. In considering UK 'systems' and national 'sub-systems' this is probably just as it should be.

However, such organisations need core information to work with and to help in unlocking their potential – hence the recommendation in this report that consideration be given to the consolidation or networking of relevant organisations to form a UK Education Information Service. Were such services to be secured, we recommend then trusting to initiatives within each country and sector, and simply complementing these with a web portal and guidance facility to enhance awareness of and access to such sources in the UK and beyond.

IV.7. Value for money

Despite public affirmation of the importance of evidence, long-term national infrastructures for the production, dissemination and application of new knowledge sometimes seems complex – but it is also fragile.

Indeed, worthwhile initiatives come and go. Sometimes such initiatives are reliant on government funding, sometimes on the commitment or interests of higher education institutions, sometimes they draw on research associations, charities, companies and even individuals. There are thousands of educational organisations in the UK which are supportive of the use of research evidence in policy and practice. However, overall, complexity and a lack of information results in considerable waste in effort and resource.

Development of the SFRE model of knowledge development and mobilisation has the potential to improve this situation.

First, the roles of different institutions and investments can be clarified through discussion of functions in relation to the model overall. This should support more explicit evaluation of quality and value.

Second, the importance of different institutions and investments can be considered, and decisions taken about where responsibility for provision should lie. We have argued that a UK Education Information Service, accessed through a public web-portal and guidance service, is the most essential and cost-effective form of provision. With a light touch and at relatively low cost, this would enable and support diverse local, institutional, sectoral and national initiatives for knowledge interpretation, mediation and brokerage.

Conclusion

This report demonstrates the value of constructively sharing the collective knowledge and expertise of stakeholders in UK education research. Devolution has provided the UK with a home-based comparative method, and we have used this to celebrate successes, illuminate issues and explore solutions.

SFRE brought policy makers, practitioners, researchers, mediators, funders and many others into a structured conversation. This showed, tantalisingly, the potential which is available if only it could be unlocked in more sustained processes of engagement. Specific recommendations have been made, including one related to the vulnerability of what we believe is the most foundational and enabling part of our knowledge development and mobilisation system. Establishment of a UK Education Information Service would significantly improve public access to knowledge about education and thus open up opportunities for distributed innovation across national systems. Although there would be some modest cost in this, it can be seen as a condition for successful decentralisation. A supply of clean water is taken for granted as underpinning public health – and a basic supply of knowledge, understanding and evidence about education is just as essential for a modern, efficient democracy.

However, perhaps the most important output from SFRE is the conceptualisation of 'knowledge development and mobilisation' itself. By teasing out the key elements of such a system, we have tried to both clarify these and present them as an interdependent whole for review, debate, evaluation – and thus, improvement.

We hope and expect that discussions within each country will continue and that provision at national and UK levels will evolve further as new initiatives emerge to unlock our collective potential. In the short to medium term, financial pressures are likely to be very significant. For this reason, we have tried to suggest possibilities for consolidation, to celebrate much existing provision and to emphasise ways of adding value to what the UK and its four countries already have.

SFRE can be seen as a spin-off from the Teaching and Learning Research Programme (2000-09), the UK's largest previous research investment, which was funded by HEFCE and UK governments and managed by ESRC. Drawing on TLRP's networks and goodwill, together with the crucial support of ESRC, DCSF, CfBT and BERA, made SFRE possible. If the dialogue is to be maintained, or if a further cycle of SFRE deliberation is to be initiated in a few years time, then development of a new or renewed consortium will be necessary.

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Appendices

1. List of participants to SFRE meetings, 2008–2010

1	Eileen	Allpress	National Teacher Research Panel
2	John	Anderson	Education and Training Inspectorate, NI
3	Yvon	Appleby	University of Central Lancashire
4	Paul	Ashwin	Lancaster University
5	Liz	Atkins	Nottingham Trent University
6	Richard	Bartholomew	Department for Children, Schools and Families
7	Vivienne	Baumfield	University of Glasgow/ BERA Council
8	Lori	Beckett	Leeds Metropolitan University
9	Matthis	Behrens	Swiss Society for Research in Education/ Institut de Recherche et de Documentation Pédagogique
10	Michael	Blaylock	National Strategies
11	Janet	Bohrer	Quality Assurance Agency
12	David	Bridges	UEA/St Edmund's College
13	Pat	Broadhead	Leeds Metropolitan University
14	Chris	Brown	Training and Development Agency for Schools
15	Sally	Brown	University of Stirling
16	Margaret	Brown	King's College London
17	Anne	Campbell	BERA
18	Liz	Carpenter	Universities UK
19	Ralph	Catts	University of Stirling
20	Bette	Chambers	Institute for Effective Education, York
21	Donald	Christie	University of Strathclyde/ BERA Council
22	Linda	Clarke	University of Ulster
23	Kathleen	Collett	City and Guilds Skills Development
24	Philippa	Cordingley	Centre for the Use of Research and Evidence in Education
25	Demitri	Coryton	Education Journal
26	Susan M.B.	Davies	Trinity College Carmarthen/ BERA Council
27	Ross	Deuchar	University of Strathclyde/ SERA
28	Harriet	Dunbar-Goddet	Universities and Colleges Admission Services
29	Lucy	Emerson	National Children's Bureau
30	Mabel	Encinas	TLRP
31	Karen	Evans	General Teaching Council for Wales
32	Stuart	Fancey	Scottish Funding Council
33	Maggie	Farrar	National College for Leadership of Schools and Children's Services
34	Becky	Fauth	National Children's Bureau
35	Zoe	Fowler	Independent Researcher
36	Fiona	Fraser	Scottish Government
37	John	Furlong	University of Oxford
38	Simon	Gallacher	National Foundation for Educational Research
39	John	Gardner	Queen's University Belfast
40	Paul	Gentle	Leadership Foundation for Higher Education
41	Andy	Gibbs	Economic and Social Research Council
42	Rob	Gilbert	University of Queensland
43	Pip	Gilroy	UCAS
44	Jim	Gleeson	University of Limerick
45	Lizbeth	Goodman	Futurelab
46	Loraine	Goss	Marshfield Primary, Newport
47	David	Gough	Institute of Education, London: SSRU and EPPI-Centre

48	Jackie	Greatorex	Cambridge Assessment
49	Kenneth	Greer	Fife Council, Scotland
50	Kevin	Griffiths	Welsh Assembly Government
51	Dale	Hall	Opinion Research Services
52	Tom	Hamilton	General Teaching Council for Scotland
53	Lorna	Hamilton	Scottish Educational Research Association/ University of Edinburgh
54	Nick	Hammond	The Higher Education Academy
55	Sean	Hanan	Ofsted
56	Steven	Higgins	Durham University
57	Josh	Hillman	The Nuffield Foundation
58	Jeremy	Hoad	British Educational Research Association
59	Diane	Hofkins	Journalist
60	Paul	Hubbard	HEFCE
61	Fiona	Hyland	ESCalate
62	John	Ireland	The Scottish Government
63	Colin	Isham	CUREE
64	Jack	Jackson	HM Inspectorate of Education
65	Paul	Jenkins	Training and Development Agency for Schools (TDA)
66	Jonathan	Johnson	Training and Development Agency for Schools (TDA)
67	David	Jones	Council for Subject Associations
68	Cath	Jones	University of Glamorgan
69	Sheila	Kearney	Learning and Skills Improvement Service
70	Karen	Kerr	Learning and Teaching Scotland
71	Helen	King	Higher Education Academy
72	Peter	Lavender	NIACE
73	Wendy	Lecky	Department for Employment and Learning, Northern Ireland
74	Ruth	Leitch	Queen's University Belfast
75	Di	Levine	Becta
76	Kay	Livingston	Learning and Teaching Scotland
77	Ingrid	Lunt	University of Oxford
78	Audrey	MacDougall	Scottish Government
79	Fiona	Maclennan	Falkirk Council
80	Rob	Mark	Queen's University Belfast
81	Stella	Mascarenhas-Keyes	Department for Children, Schools and Families, England
82	Ian	Matheson	General Teaching Council for Scotland
83	Trisha	Maynard	Swansea University
84	Helen	McClure	Department of Education, Northern Ireland
85	Karen	McCullough	Department of Education, Northern Ireland
86	Carol	McDonald	HMIE
87	Brendan	McDowell	CCEA
88	Ian	Menter	University of Glasgow/BERA Council/UCET
89	Ann	Millar	Scottish Funding Council
90	David	Mills	University of Oxford
91	Anne	Moran	University of Ulster
92	Alexandra	Morgan	Swansea University
93	Andrew	Morris	CfBT Education Trust
94	Pamela	Munn	British Educational Research Association/ University of Edinburgh
95	Jean	Murray	University of East London
96	James	Noble-Rogers	Universities Council for the Education of Teachers

97	Jacquie	Nunn	Training and Development Agency for Schools
98	Sandra	Nutley	University of Edinburgh
99	Alis	Oancea	University of Oxford
100	Chris	Owen	Department for Children, Education, Lifelong Learning and Skills
101	Raj	Patel	Learning and Skills Network
102	Helen	Perkins	Society for Research into Higher Education
103	Stephen	Pickles	Institute of Education, London
104	Jelena	Plantak	CfBT Education Trust
105	Andrew	Pollard	Teaching and Learning Research Programme
106	Sally	Power	Cardiff University/ BERA Council
107	David	Pye	Local Government Analysis and Research
108	Gareth	Rees	Cardiff University
109	Peter	Ribbins	University of Lincoln
110	William	Richardson	University of Exeter
111	John	Rodger	York Consulting LLP
112	Meilyr	Rowlands	Estyn
113	Lesley	Saunders	Independent
114	Tom	Schuller	IFLL/NIACE
115	Judy	Sebba	University of Sussex
116	Rachel	Segal	The Higher Education Academy
117	John	Selby	HEFCE
118	Phil	Sheffield	British Education Index
119	Liz	Shutt	Universities UK
120	Chris	Sims	City & Guilds Centre for Skills Development
121	Ralf	St Clair	University of Glasgow
122	Jane	Steele	General Teaching Council for England
123	Robin	Stoker	Office for Standards in Education, Children's Services and Skills
124	Howard	Tanner	Swansea Metropolitan University
125	Chris	Taylor	Cardiff University
126	Julie	Temperley	CUREE
127	Harry	Torrance	Manchester Metropolitan University/ Education and Social Research Institute
128	Sarah	Tough	Institute of Education
129	Debbie	Tynen	Welsh Assembly Government
130	Rob	Van Krieken	Scottish Qualifications Authority
131	Dylan	Vaughan Jones	Panel Rhwydwaith Addysg a Hyfforddiant
132	Anna	Vignoles	Institute of Education, University of London
133	Helena	Walters	Learning and Teaching Champion
134	Jean	Ware	Bangor University
135	Richard	Watermeyer	Cardiff University
136	Karen	Whitby	CfBT Education Trust
137	Geoff	Whitty	Institute of Education
138	Chris	Williams	National Strategies
139	Richard	Williams	Rathbone
140	Deborah	Wilson	Department for Children, Schools and Families
141	Stephen	Witt	Department for Children, Schools and Families
142	Ruth	Wright	University of Wales Institute, Cardiff
143	Derek	Young	Higher Education Academy
144	Wendy	Young	Estyn

2. Glossary of acronyms

AARTS   Access to Research Resources for Teachers Space
AERS   Applied Educational Research Scheme
BEI   British Education Index
BERA   British Educational Research Association
C4EO   Centre for Excellence and Outcomes in Children and Young People's Services
CCEA   Council for Curriculum Examinations and Assessment
CEBE   Coalition for Evidence-Based Education
CERI   Centre for Educational Research and Innovation
CERUK   Current Educational and Children's Services Research in the UK
CPD   Continuing professional development
CRS   Comprehensive Spending Review
CUREE   Centre for Use of Research & Evidence in Education
DCELLS   Department for Children, Education, Lifelong Learning and Skills, Wales
DCSF   Department for Children, Schools and Families
DENI   Department of Education, Northern Ireland
DfE   Department for Education
DfES   Department for Education and Skills
EAS   Education Analytical Support Division (Scottish Government)
EC   European Commission
EEP   Educational Evidence Portal
EERQI   European Educational Research Quality Indicators
EPPI   Centre Evidence for Policy and Practice Information and Co-ordinating Centre
ERA   European Research Area
ERIC   Education Resources Information Center
ESRC   Economic and Social Science Research Council
FP7   Framework Programme 7
GTCS   General Teaching Council for Scotland
GTCNI   General Teaching Council for Northern Ireland
GTCE   General Teaching Council for England
GTCNI   General Teaching Council for Northern Ireland
HE/I   Higher education/ institution
HEA   Higher Education Academy

HEFCE   Higher Education Funding Council for England
HEFCW   Higher Education Funding Council for Wales
HMIE   HM Inspectorate of Education
ICT   Information and communication technologies
IEE   Institute for Effective Education
ITE   Initial teacher education
LSIS   Learning and Skills Improvement Service
LTS   Learning and Teaching Scotland
NCSL   National College for Leadership of Schools and Children's Services
NFER   National Foundation for Educational Research
NGO   Non-governmental organization
NHS   National Health Service
NIACE   National Institute of Adult Continuing Education
NICE   National Institute for Clinical Excellence
NIERF   Northern Ireland Education Research Forum
NTRP   National Teacher Research Panel
OECD   Organisation for Economic Co-operation and Development
PSG   Professional Skills for Government
R&D   Research and Development
RAE   Research Assessment Exercise
RCUK   Research Councils UK
REF   Research Excellence Framework
RPA   Review of Public Administration
SEN   Special educational needs
SERA   Scottish Educational Research Association
SFC   Scottish Funding Council
SFRE   Strategic Forum for Research in Education
SQA   Scottish Qualifications Authority
STEC   Scottish Teacher Education Committee
TDA   Training and Development Agency for Schools
TLRP   Teaching and Learning Research Programme
TTRB   Teacher Training Resource Bank
UCET   Universities Council for the Education of Teachers
WAG   Welsh Assembly Government
WERN   Welsh Education Research Network

About the authors

Alis Oancea

Alis is Research Fellow at Oxford University's Department of Education. She is an Executive Council member of the British Educational Research Association and member of the Peer Review College of the Economic and Social Research Council, as well as of the boards of reviewers of international bodies with an education portfolio. She has published in the fields of research policy and governance - including research evaluation-, post-compulsory education and training policy, and philosophy of research. She has particular interest in issues of research assessment, research quality and impact, and peer review, in the national and international contexts. Alis has recently completed work on the impact of the 2008 Research Assessment Exercise on education departments in the four countries of the UK and has just started a funded project on interpretations of research impact and impact-related practices across the full range of disciplines. Recent publications include Assessing Quality in Applied and Practice-Based Research in Education (Routledge, 2007), and Education for All: The future of education and training for 14-19 year olds (Routledge, 2009). Alis contributed to the first SFRE report (2008) and became the SFRE researcher in mid-2009.

Andrew Pollard

Andrew is an ESRC Fellow of the Teaching and Learning Research Programme (TLRP) and is based at the Institute of Education, University of London. He formerly held chairs at the universities of Cambridge, Bristol and West of England. From 2002-09 he was Director of the TLRP, the UK's largest research investment in education. He led TLRP's impact work, focusing project findings on contemporary issues in lifelong and workplace learning, higher and further education and in schooling. As a former school teacher, his own research interests include teaching-learning processes and learner perspectives, as well as the development of evidence-informed classroom practice. He is responsible for a popular textbook and support materials on reflective teaching within primary and secondary schooling. He has a long-standing interest in the design, management and evaluation of research projects in education and has worked extensively with schools, agencies and funding bodies. He was an OECD CERI examiner of Switzerland's educational research system, promoted SFRE from its inception and has chaired it since 2008.

Unlocking Learning?

Towards Evidence-informed
Policy and Practice in Education

Andrew Pollard and Alis Oancea

The UK Strategic Forum for Research in Education (SFRE) documented a wide range of research-informed resources, initiatives and commitment in support of learning, but found that some core provision is fragmented and inaccessible. The potential of such resources, it is argued, should be unlocked to support contemporary policies for distributed, system-wide improvement.

This report proposes a six part model for evaluating knowledge development and mobilisation in education, and makes 20 recommendations for the improvement of UK provision.

The document is based on SFRE's deliberations from 2008-10. For more information on SFRE, including downloads of much supplementary material on UK educational research, see: **www.sfre.ac.uk**

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