Knowledge mobilization in education in the United Kingdom


Introduction

This paper provides an overview of knowledge mobilization by universities in the United Kingdom (UK). The paper first provides an introduction to the UK and the capacity of its education systems and research structures, capacity and quality measures. The paper then describes knowledge mobilization issues in education in the UK. First in terms of recent historical developments since the 1990’s, then new methods to enable accessing of research evidence, then new initiatives for using research, and then new schemes to encourage the impact of research.

The UK has undergone considerable change in the last ten years in its educational policies and in an interest in evidence informed policy and practice. Many of these developments were stimulated by a new Labour government elected in 1997. In the Spring of 2010 a new Conservative-Liberal Democratic coalition was elected which is just embarking on its own radical reform agenda. It is not possible to describe all of these developments in this paper. Discussion of some of the changes up to 2009 can be found in the country pages of the Strategic Forum for Research Evidence website.¹

UK governance, population and education

The United Kingdom (UK) is made up of England, Scotland, Wales and Northern Ireland. It is a country yet contains four countries with devolved national administrations with varying powers and policies and resources in Scotland, Wales and Northern Ireland. The UK is a member state of the European Union. The UK has a population of 62 million of whom about 20% are under the age of 16. The majority of the UK population live in England, with approximately 5 million living in Scotland, 3 million in Wales and 1.7 million in Northern Ireland.

The UK population has increased by 8% over the last twenty years. In 2010 the working population was 38 million made up of 23.8 million employees, 3.8 million self employed, 2.4 million unemployed, and 8.2 million economically inactive².

UK education

In 2009/10 there were 9.7 million full-time and part time pupils in 33,137 schools. In 2008/09 there were 520,800 full-time qualified teachers in the United Kingdom in 2008/09. The average primary school had 228 pupils with a pupil teacher ratio of 20.7. The average secondary school has 942 pupils

¹ http://www.sfre.ac.uk
² Much of the data reported here is available in DfE (2011) and in national statistics available at: http://www.statistics.gov.uk
with a pupil teacher ratio of 15.3. Many other adults are employed as teaching assistants and other support staff.

At GCSE/NQ Standard Grade level, of pupils in their last year of compulsory schooling 68.7% gained 5 or more passes at grades A*-C/1-3 (49.8% when this included English and Mathematics).

In 2008/09, 86% of 16-year olds and 73% of 17-year olds were in full-time post compulsory education and Government supported training (GST) and 48.7% per cent of young people achieved 2 or more A level passes or equivalent.

The 2009 scores in the Programme for International Student Assessment (PISA) for England, Scotland and Northern Ireland were slightly above average for reading, average for mathematics, and above average for science. Wales scored significantly lower than the rest of the UK on all three measures (Bradshaw et. al. 2010).³

England scored highly in the 2007 Trends in International Mathematics and Science Study, TIMSS being outscored only by Asian Pacific Rim countries (Sturman et. al. 2008).⁴

In 2008/09 there were 2.6 million (1.0 million part time) higher education students of which 2 million were undergraduates and 542,500 were postgraduate students; 374,200 were overseas students. There were 127 universities, 37 other higher education institutions and 434 further education colleges (of which 93 were 6 form colleges). There were 117,000 full-time higher education academic staff and 60,000 fulltime further education academic staff.

A total of 674,400 higher education qualifications were awarded in higher education institutions in the United Kingdom in 2008/09. Of these, 49.5 per cent (333,700) were first degrees, 27.7 per cent (186,900) were at Masters / other postgraduate level, 20.2 per cent (136,100) were sub-degree qualifications and 2.6 per cent (17,700) were PhD or equivalent.

In England the main ministries responsible for education are the Department for Education (DfE) and the Department for Business Innovation and Skills (BIS). The Scottish Government has the Education Analytical Support Division (EASD) and a Director General for Education. The Welsh Assembly Government (WAG) has the Department for Children, Education, Lifelong Learning and Skills (DCELLS). Northern Ireland has a Department of Education (DE) and a Department for Employment and Learning (DEL). The total expenditure on education for 2010 was £878.6 billion which was 6.2% of GDP.

Education is a high profile subject politically with many changes of policy and funding particularly in England. The DfE is accelerating the change of publicly funded schools being maintained by the local authority (local government) to being academies established by sponsors from business, faith or voluntary groups working with partners from the local community. In higher education, BIS is

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³ See reports at: http://www.nfer.ac.uk/research/projects/oecd-programme-for-international-student-assessment-oecd-pisa/
⁴ See reports at: http://www.nfer.ac.uk/nfer/research/projects/trends-in-international-mathematics-and-science-study-timss/timss_home.cfm
Not withdrawing the government subsidy paid to universities for UK and European Union students so full cost fees will be charged supported by an expanded student loan system.

**University based structures and research funding**

Government infrastructure support for research by universities is allocated by Higher Education Funding Councils on the basis of quality assessments of previous research outputs in different discipline areas. The council for England (HEFCE) will distribute £1,558 million of such ‘QR’ funding in 20011/12. HEFCE will distribute £23 million of grants to 64 departments of education with grants ranging from £1000 to £6m on basis of the departments rating multiplied by the number of relevant included staff.

Some departments have no outputs judged to be of world class standard whilst others have 35% of submitted outputs graded at that level. The QR system has been increasing the differential in funding between departments with high and low research gradings resulting in an increasing polarization between research intensive and research limited departments (Munn 2008; Pollard 2006).

Size of academic department is also important. Some departments have only one or two active researchers whereas the Institute of Education in London has approximately 200 academic researchers entered into the RAE.

The DfE in England funds research directly to support its policy making needs through commissioning specific studies and funding three research centres on:

- Centre for Analysis of Youth Transitions (CAYT)
- Centre for Understanding Behaviour Change (CUBeC)
- Childhood Wellbeing Research Centre (CWRC)

In 2009/10 the Department for Children, Schools and Families (the precursor to the DfE formed on the election of new government in Spring 2010) spent £13.3 million on research and analysis for research into education, children and families policy. They also invested in research centres though they were more methodologically rather than topic based.

Government also funds research indirectly through the Economic and Social Research Council which has an annual budget for research grants, studentships and knowledge transfer of approximately £180 million per year (ESRC 2010). Education has to compete with other disciplines and has 8% success rate for research grant applications compared with 16% across social sciences (though this does not indicate the size of grants that are awarded).

The relative low funding for research in education was made up for over the last ten years as a special government funded initiative for research in education, the Teaching and Learning Research Programme (TLRP) funded over 100 specific projects and collaborative work and networking.
Broader capacity issues

Most educational research in the UK is undertaken by universities although there are a small but increasing number of private providers and the long established charity, the National Foundation for Educational Research.

University academic staff in the discipline of education are estimated at 8,000 full time equivalents (FTE). In 2007/08 nearly 40% are aged over 55 with under 10% aged below 35; 5% were non UK nationals (Mills 2009, Munn 2008, Oancea 2009). Many of these staff do not have permanent positions or even if technically permanent do not have security of employment. There are many temporary lecturers and research officers supported by grant funding. European Union legislation now requires employers to offer an open ended contract to those who have been on a fixed term contract for four years. In practice, however, staff with open ended contracts are made redundant when grants end after that four year period. The age profile of academics in education and the fixed term nature of research posts may have long term effects on research capacity in education (Fowler et. al. undated).

In the mid and late 1990’s there were a number of critiques of educational research in the UK (Hargreaves 1996, Hillage et. al. 1998, McIntyre & McIntyre 1999) and a concern to increase capacity building in the sector. In the last ten years there have been a number of initiatives to develop research capacity in education. By far the largest was the TLRP that worked across the UK with a budget of well over £40 million.

In Scotland the Applied Educational Research Scheme (AERS) was funded at a cost of £2 million from 2004 to 2009 by the Scottish Funding council and the Scottish government, to build collaborative research capacity across the seven universities in Scotland which provide initial teacher education, and to conduct research on the National Priorities in Education. AERS was a much smaller scheme than TLRP with a budget of £2 million, although the scheme worked closely with the larger TLRP.

In Wales in 2007, the Higher Education Funding Council (HEFCW), and the ESRC funded the Welsh Education Research Network (WERN). This network has been successful in building partnership between all HEIs in Wales to build capacity in education research. The Network aims to develop research capacity through collaborative partnerships all the higher education institutions with education related departments. One method has been to provide small bursaries to support cross institution research grant applications.

In Northern Ireland in 2007, the Department of Education (DE) commissioned a review of its monitoring, research and advice mechanisms and the review recommended an education research forum (NIERF) be established to link the higher education institutions, the Education and Training Inspectorate (ETI) and both the Department of Education (DE) and of Employment and Learning (DEL).

A common feature of all these initiatives in the four countries of the UK was a concern to develop capacity through networking and collaboration rather than just specific research products.
Quality indicators

The main quality indicator for educational research is the previously mentioned research funding council’s assessment of quality for the distribution of ‘QR’ infrastructure funding. This is essentially a peer review exercise with panels assessing the quality of the evidence submitted by university departments. Up until the last exercise in 2008 it was called the Research Assessment Exercise (RAE) but the next exercise in 2014 is called the Research Excellence Framework (REF). For the RAE, departments were rated for their research environment and all ‘entered’ staff submitted up to four research outputs (such as research papers) that were rated for excellence by a panel predominantly made up of other academics from the same discipline. The overall rating received by a department was multiplied by the number of staff entered so there was a tactical judgment to be made as to whether to maximize the overall grading or maximize the multiplier of number of staff submitted. The results for the 2008 RAE showed that the education panel rated on average 15% of outputs by 1996 staff to be world class and a further 28% to be internationally excellent.

RAE 2008 Education Panel Summary Results for 1996 staff

- 4* Quality that is world-leading in terms of originality, significance and rigour 15%
- 3* Quality that is internationally excellent 28%
- 2* Quality that is recognised internationally 33%
- 1* Quality that is recognised nationally 19%
- Unclassified Quality that falls below the standard of nationally recognised work. 5%

Many have criticized the RAE system for the crudeness of its approach and for increasing the number of academic papers published. The RAE does however does act as a powerful driver for universities to attend to the quality and quantity of academic outputs. The new REF system for 2008 is taking a similar model but is adding research impact (to research environment and research outputs) as an indicator of excellence making up 20% of the grading thought this may increase to 25% in future REFs. Impact will be assessed by expert review of case studies submitted. These may include any social, economic or cultural impact or benefit beyond academia and was underpinned by research produced by the submitting institution.

Strategies and mechanisms for knowledge mobilization

The UK uses many of the standard mechanisms for informing others of the outputs and relevance of academic research. These are largely focused at other academics through presentations at conferences, and publication of papers and books. This form of knowledge sharing is valued within academia and is often the basis for professional development and promotion. There is also growing awareness of more public dissemination of research with university press officers, media releases, and media training for academics. Pamphlets and brochures are also often produced to provide quality brand awareness to research funders and also to assist with student recruitment. All university departments of education have websites but these are often not very well developed and if there is any marketing initiative it tends to be focused on student recruitment rather than research findings. Some universities have knowledge transfer departments though these tend to be focused at commercial exploitation of research with the private sector. This seems to occur predominantly in
technological and biological sciences even though there is a growing private sector provision in UK education.

There is also a demand side aspect to research findings with policy makers, practitioners, and the media asking for research information. The most developed aspect of this is policy demands for research through asking for academic advice and through direct funding of research projects and research centres. Government departments in the UK have research analyst staff who both manage government research projects and also seek and interpret existing research findings.

**Developments in the late 1990’s**

The change to a Labour Party government in 1997 was followed by a White Paper on Modernizing Government (Cabinet Office 1999) that emphasized the importance of evidence in developing public services and gave a central role to the Cabinet Office for social science research. In 2002 Treasury Spending Review required evidence of the effectiveness of funded programmes. At the same time there was, as already mentioned, much criticism of educational research and the government commissioned a review of the direction, organisation, funding, quality and impact of educational research.

The review concluded that the relationship between research, policy and practice needed to be improved, the research agenda was too supplier driven, and that with government sponsored research, there was too much emphasis on short term evaluations at the expense of exploration and development of policy options (Hillage et al 1998). Research that addressed issues relevant to policy and practice did not build sufficiently on previous knowledge and was too small scale to produce generalisable findings. The pressure on researchers to publish in academic journals limited the access of policy and practice to research findings. Hillage et al (1998) proposed that a more strategic approach be taken to planning research and synthesizing and communicating evidence.

One response to the report was the setting up of the National Education Research Forum (NERF) in 1999 to develop a national strategy for research in education. In the first few years there was an intensive consultation and discussion phase, and from 2002 a focus on collaborative and developmental action to improve the quality and impact of educational research. NERF produced a number of working papers and proposed the development of some sort of structure to provide policy makers and practitioners’ access to and guidance on educational research. Second, the use of development and research programmes to combine with standard research approaches to develop policy and practice. NERF was set up as an independent body funded by government and closed when government terminated funding in 2006.5

Another response was the funding of a centre for evidence informed policy and practice (based at the EPPI-Centre) to develop capacity in the systematic reviewing of evidence in education in England from 2001 to 2009.

The interest in evidence informed policy and practice in education was also a growing area of interest internationally. In 2002 the Centre for Educational Research and Innovation at OECD undertook a review of England’s R & D system in education. The report made a number of

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5 NERF papers are accessible on the eep website at: www.eep.ac.uk
recommendations but was broadly supportive of the government’s aims and new initiatives (OECD 2002).

At the same time as investing in evidence informed education, the government was undertaking major reforms in the school system. A large section of the educational academic community saw their role as questioning and critiquing government and saw the investments in evidence informed policy as a means to exercise managerial control over research, limits its independence from government, and to prioritise a simplistic ‘what works’ research agenda and methodology (see for example, Ball 2001). There was clear resistance and hostility to some of the government investments including NERF.

Overall, the Labour government put in place many of the component parts of an evidence informed policy and practice system. They created a strategic forum, capacity in systematic reviews, an overall increase in research funding, and an interest in using research in policy making. The system did not fully function. There may be several possible reasons for this. One may be that the separate components created by government were not sufficiently linked up. This may be partly from some academic resistance and partly because the systems were so new and evolving. Also, one major component of a system, an evidence centre to help produce advice from research was not fully enacted. The nearest the government came was the creation of the Centre for Excellence in Children’s Outcomes funded by DfE for child welfare services. This includes user generated research questions that are then addressed by academic semi systematic reviews and the findings are then interpreted and communicated to practitioners on a local level. In other areas of social policy there are evidence centres (or intermediary organizations) such as the Social Care Institute for Excellence (SCIE) in social care and the National Institute for Clinical and Health Excellence (NICE) in health.

More recent developments have been a broadening of systematic review methods to address all research questions rather than just efficacy, the acceptance for reviews of evidence and that they need to be undertaken according to an explicit accountable and rigorous methodology, and an interest from the European Commission in these issues.

The new Conservative Party government in the spring of 2010 has espoused an interest in educational research but this has not been reflected by action. Although research council and funding council’s have had relatively modest cuts aimed at reducing the government financial deficit, direct research funding by government on education seems to have been on hold over the last year. In addition, the closure of some government agencies and a consolidation of government websites means that some research resources will no longer be updated. More worryingly, the Cabinet Office has published a paper that new initiatives need no longer be evaluated and no government department has as yet agreed to partake in CERI at OECD’s new project on governing Complex Education Systems which has two key elements of governance mechanisms and knowledge options.

**New initiatives and resources for accessing evidence**

In the last ten years a number of new resources have become available to make research evidence more accessible. Some of these are briefly described.
The government funded NFER to provide a free, online database of current education research called CERUK\(^6\). The database allows access to ongoing research rather than results of completed studies that sometimes take considerable time to be published.

Centre for evidence informed policy and practice in education. As already mentioned, the government funded capacity development in and the production of systematic reviews of evidence in education. This was achieved by funding review groups on various topics with training and quality assurance support by the EPPI-Centre\(^7\) (Oakley et. al. 2005).

The Centre for the Use of Research and Evidence in Education (CUREE\(^8\)) is an independent consultancy that supports evidence-informed educational practice. The aim is to help teachers make informed decisions about the most effective and efficient approaches to use in their own context. CUREE are commissioned by government agencies to support several evidence projects in education including research digests for practitioners.

The DfE produces for teachers Research Informed Practice Digests (TRIPS), Research Bites (summaries), and School Research News\(^9\).

The Training and Development Agency for Schools (TDA) produced the Teacher Training Resource Bank (TTRB) but the site is being archived by the new government\(^10\).

The General Teaching Council for England (with a timetable to be closed by the new government) provides on its website summaries of research findings and more detailed anthologies under the heading of Teaching and Learning Academy\(^11\).

The Institute for Effective Education\(^12\) at the University of York work includes the conduct of systematic reviews of existing education research and runs the Best Evidence Encyclopaedia (the BEE) website to provide reliable, unbiased evidence on the effectiveness of educational programmes.

The UK Educational Evidence Portal (EEP\(^13\)) is a website that helps people find educational evidence from a range of reputable UK sources using a single search. The portal is run by a consortium of organization with only limited core funding and no offices or ongoing staff. As evidence is so widely dispersed a group of organisations came together to create a central point of access to enable finding that evidence.

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\(^6\) [http://www.ceruk.ac.uk](http://www.ceruk.ac.uk)
\(^7\) [http://eppi.ioe.ac.uk](http://eppi.ioe.ac.uk)
\(^8\) [http://www.curee-paccts.com/](http://www.curee-paccts.com/)
\(^9\) [http://www.education.gov.uk/schools/toolsandinitiatives/tripsresearchdigests](http://www.education.gov.uk/schools/toolsandinitiatives/tripsresearchdigests)
\(^11\) [http://www.gtce.org.uk/TLA/rtf](http://www.gtce.org.uk/TLA/rtf)
\(^12\) [http://www.york.ac.uk/iee](http://www.york.ac.uk/iee)
\(^13\) [http://www.eep.ac.uk](http://www.eep.ac.uk)
New initiatives for use of research

A recent survey of activities in Europe linking research with policy making identified 76 such activities in the UK. The survey was not exhaustive but provides some information on the range of activities being used to enable evidence use. It also shows that this is a very active area of work in the UK (Gough et al In Press). Some of these activities are focused on making research available for non academic users of research (as discussed in the previous section) but others are concerned with mediation and use.

One long standing initiative is the National Teacher Research Panel (NTRP\(^{14}\)) which from a partnership between DfE, GTCE and National College for the Leadership of Schools and Children’s Services and the Learning and Skills Improvement Service. The NTRP is an independent group of about 15 practising teachers and tutors who work towards research being given a high role in decision making by all parties in education, towards all research takes account of the practitioner perspective, and towards increasing the number of teachers and tutors engaged in and with the full spectrum of research activity.

The Coalition for Evidence-based Education (CEBE\(^{15}\)) is an alliance of researchers, policy makers and practitioners who are interested in improving the way research evidence is used, and exchanged, across the sector. The aim is to bring together many of those working towards evidence informed education to work towards the same shared goal and to increase the coherence across different elements of this evidence-using system. The two main paths of action are to encourage strategic collaboration between existing bodies and initiatives and practical initiatives to identify, and fill, gaps in the current infrastructure. Current projects are to: (i) increase the use of evidence by the media; (ii) support the use of evidence by practitioners; and (iii) explore developments of the use of evidence in policy making.

The Strategic Forum for Research in Education (SFRE) is an initiative led by the British Educational Research Association (BERA) and the Economic and Social Research Council (ESRC) with funding being provided by BERA, ESRC, DCSF (now DfE) and CfBT. The SFRE supported multiple stakeholders in all four countries of the UK and many educational sectors in reflecting on education research to discuss how countries in the UK can improve the creation, mediation and application of evidence about education. SFRE’s Final Report of the UK SFRE 2008-2010 structured its recommendations around the six elements in the development and mobilisation of knowledge in education of:

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

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

III. 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.

IV. Collection and interpretation – concerning issues such as the processing of new

\(^{14}\) http://www.ntrp.org.uk/

\(^{15}\) http://www.cebenetwork.org
knowledge in libraries and databases, empirical review and theoretical synthesis.

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

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

SFRE was led by the Director of TLRP and was in some senses a spinoff of TLRP. It could also be seen as covering some of the issues of the earlier NERF though it was led more from the educational research community.

Finally, the European Commission Directorate for Education and Culture has been encouraging evidence informed policy and practice through publications and funding capacity building projects. Two recent projects have been led by the EPPI-Centre in the UK\(^{16}\). One aspect of the projects has been to identify practices linking research to use in education across Europe. The projects have adapted Levin’s (2004) model on evidence use and classified activities according to the mechanism by which they link research to use. NERF and SFRE are, for example, classified as system level approaches.

Evidence informed policy and practice systems

Another aspect of the project has been to identify research on research generation and utilization. Surprisingly there is virtually none. There is research in other disciplines than education in Europe and research on education outside Europe but very little within Europe on education. The UK is fortunate to have the Research Utilization Research Unit in Scotland, but the focus of their work is

\(^{16}\) http://www.eipee.eu
not primarily on education. The UK is also the base for the journal Evidence and Policy which is one of the few journals that examines evidence use.

**Encouraging impact**

Another aspect of evidence informed policy and practice is the increased concern of government that research has impact. This is partly driven by a concern that research evidence should not stay in universities but benefit the wider society including commercial development of research. Reference has already been made the introduction of impact as a measure in the REF exercise to determine funding council infrastructure funding to universities for research.

All of the research councils have also developed new policies and funding streams to encourage this. Holders of ESRC research grants, for example, are under much stricter rules to have dissemination plans and to submit details of research outputs onto the ESRC’s on-line database. ESRC also has a raft of impact support schemes including: informing public policy, policy placements, policy fellowships, student policy placements, and follow on funding to communicate research findings. The research councils label such schemes as evidence for public policy in that they aim to encourage the use of the research and knowledge to inform and improve public policy and services.

**Conclusion**

The UK has undergone major political changes over the last 14 years since the election of a Labour government in 1997 with a radical education reform agenda and now a new set of radical policies from a new Conservative government from 2010. Education reform continues to be a major policy priority. Although many politicians speak of the important of evidence in policy making the political agenda for their new policies is very strong and so may not be so amenable to contrary evidence. Despite this the Labour government did invest in many structures and processes to develop capacity for evidence informed policy and practice. The UK still has very many initiatives and energy to further develop this area of work.

**References**


