Mobilising research knowledge for teaching and teacher education

Definitions

This special issue is concerned with mobilising research knowledge for teaching and teacher education. Various terms are used to describe this concept so we begin by elaborating what we mean by it. We understand knowledge mobilisation to mean the process by which knowledge is transferred from its originating community – often a research community – to other communities, which are often policy or practice communities. We understand research use to refer to the ways in which research is interpreted and used by policy-makers and practitioners. When research-generated knowledge is used by practitioners, we can refer to research-informed practice. If research provides a foundation for teaching directly, we refer to this as research-based practice. Beyond these relatively established terms, the articles assembled in this special issue also refer to knowledge sharing, transfer and transformation. All these terms address challenges that appear when research-generated knowledge, usually generated by academics, is transferred to schools, usually to inform teaching practice. The terms and concepts are varied, and there is a lack of agreement about their use, but many of these terms reflect the idea that three processes are involved: knowledge generation, knowledge mobilisation and knowledge use. As there is no commonly agreed term to describe the entire process, we followed other writers in referring to this as knowledge mobilisation, abbreviated to KM.

Knowledge mobilisation is a priority for educational policy

Educational policy recognises KM as a priority, and correspondingly, KM is addressed in European Commission policy documents. The European Commission (2013) states that 'optimal circulation, access to and transfer of scientific knowledge' is a desideratum, and elaborates:

The global shift towards giving free online access (open access) to the results of publicly-funded research (publications and data) has been a core strategy in the European Commission to improve knowledge circulation and thus innovation. (n.p.)

Publicly funded research findings are taken up in knowledge mobilisation, and research in KM can investigate how this occurs. Whilst policies position the gap between research and practice in education as a major concern which needs to be resolved, KM research has the potential to explore how this resolution might occur. Jointly, KM activity, educational policy and KM research can encourage strategies to close the oft-lamented gap between research and practice in education. This joint enterprise has the potential to lead to stronger relationships between research and practice, to enable better use of research in the education of teachers, and to help address educational issues in practice. Furthermore, it may have profound implications for teacher education at both the initial and continuing stages because it implies that teachers' practice should be informed not only by professional values, but also by evidence provided by research.

Practical steps in Europe have encouraged knowledge mobilisation

Practical steps in Europe encourage knowledge mobilisation, including improved infrastructures. For example, Denmark has established a national clearinghouse for educational research, charged with conducting systematic reviews and systematic research mappings. A unit within the Dutch Research Council commissions practice-relevant literature reviews from researchers. Norway's Research

Council has established a Knowledge Centre for educational research and there are national, educational research institutes in France, Germany and Sweden. In England, the What Works Network is currently researching educational interventions with 630,000 pupils in 4500 schools. In Romania, the 2011 Education Law highlighted the role of educational research in the creation of a knowledge-based society and in Austria, a national educational research centre develops policies to foster the exchange of knowledge from educational research to practice.

In 2010, the European Commission funded an investigation into the range and scale of these activities. Through a 'non-representative, non-exhaustive' survey, the Evidence Informed Policy in Education in Europe project discovered 269 activities concerned with knowledge mobilisation and research use in 30 European countries (Gough et al.). Since the report was published, it is likely that the overall number of such activities has grown (see, for example, Lenihan). These activities included the provision of research in accessible formats such as briefing papers; the formation of networks, meetings and organisations; and the provision of training. Most activities aimed to 'push' research into policy and practice, a minority aimed to stimulate need for research, and some attempted to mediate the research-policy nexus. Few activities focused on the systemic level and the overall impression in the report was of many activities with little overall coordination between them, although this situation might have changed since the formation of the Evidence Informed Policy and Practice in Education in Europe network (www.eippee.eu). This is an alliance of knowledge brokers, knowledge centres, research networks and individuals who have shared aims of collecting evidence from research and finding better ways to incorporate research use in policy and practice.

The increasing importance of KM: implications for research

The growth of policy statements and practical activities suggests that the KM field is of increasing importance across Europe and beyond; this has implications for research. The KM field has rich theoretical interest, and it seems obvious that it should be well understood. However, KM has been of only sporadic interest to researchers in the past (e.g. Dewey 1929; Fleming 1946; Clifford 1973; Nisbet and Broadfoot; Hargreaves 1996; Hammersley 2002; Thomas and Pring; Biesta 2010; Winch, Oancea, and Orchard 2015). Empirical studies in KM in education have only recently been undertaken. In consequence, little is known about KM as a research field. What is clear is that KM is complex, consisting as it does, of the three interdependent and often overlapping elements of knowledge production, mobilisation and use. Researchable questions can be asked about each element, and about the relationships between the elements.

Knowledge production has traditionally been associated with universities, which have been seen as independent of governments and thereby, not beholden to political parties. As a result, university-generated knowledge has been seen as essentially disinterested; it derives its authority at least in part, from being non-partisan. Ziman (2002) lists some of the benefits of disinterested research: it is considered to be well founded, reliable, realistic and provides independent perspectives on social needs, dangers and opportunities; it provides 'public arenas' where controversies can be debated and resolved. However, Ziman (2002) also argues that the growing demand for research to be practically useful is leading to a 'post-academic research culture' that is 'dominated by instrumental values'. Two features contribute to this shift: research funding is being directed away from 'arms-length' bodies, quasi-independent of governments, and is re-directed towards organisations that might be easier for policy-makers to influence (Day 2002; Rees and Power 2007). Simultaneously, the status of universities as the prime generators of robust evidence is undermined by the growing influence of think tanks, policy institutes and even influential bloggers, who can publish research

more quickly than universities, which are wedded to necessary but time-consuming peer-review processes. From a knowledge mobilisation perspective this opens up an agenda of researchable questions, including questions about the nature of research-generated knowledge and what counts as robust knowledge. For example, it has been argued that the nature of research should change, to focus on 'what works'. Specifically, randomised, controlled trials (RCTs) should be used as the most robust and reliable source of knowledge about 'what works'. In the field of education, there are questions to be asked about the extent to which they can be undertaken in education; the relative weight given to RCTs as distinct from other methods; and the extent to which they can answer the questions that policy-makers and practitioners pose. Second, the 'Research Impact' agenda encourages researchers to work with potential users at all stages of the research process (Walter, Davies, and Nutley 2003). This poses questions about the role of the researcher and whether pressures to communicate research results to a wider audience than hitherto creates new roles for academics in addition to the traditional roles of researching and teaching.

The element of knowledge mobilisation involves activity and organisations of several types. First, there are reviews, summaries and searchable databases of research which aim to provide accessible and understandable presentations of research for practitioners. These include national and institutional research bodies with varying degrees of independence from governments. Second, research knowledge can be mediated into practice by practitioner-facing publications and activities, including educational resources and services. For example, there are some signs that the ability to claim the authority of research for products such as textbooks and web-based materials is thought to make the product more attractive to buyers. This extends to providers of educational CPD; in England, new Standards require CPD to be justified in relation to its evidence-base (DfE 2016). A third type of mediation is performed by universities which provide postgraduate courses for teachers. This has traditionally been seen as an important way of communicating research to teachers and school leaders who, in their dissertations, have been required to demonstrate not only a knowledge of research findings, but also of the theory and philosophy which underpin and allow critique of research findings. But perhaps the most major means of mediating research into practice is through policy, at the state and local levels. Evidence-informed policy is growing in fields such as health, education and criminal justice as, across Europe, policy-makers are increasingly justifying their policies with reference to research.

Researchable questions arise in relation to each of these constituents. These include questions about processes – how research is accessed and transformed for policy and practitioner readerships, and what is gained and lost in this process. It includes questions of an evaluative nature, including the extent to which KM efforts achieve their objectives. There are also questions about the motivations that inspire organisations to mobilise knowledge.

The element of research use is also complex, and there is a growing body of research into this element. At the level of practice, research-generated knowledge must compete for the attention of practitioners with other forms of knowledge, including tradition, professional expertise, and various forms of data, including students' test data. School leaders and teachers perform different functions and there is some evidence that they interpret these types of knowledge in differential ways. They are also variously qualified, often with a first degree that is based outside the field of education; this can affect the ways in which they understand and use research. Questions arising include how teachers access and understand research, how they integrate research knowledge with other forms of knowledge, and whether there are differences between those whose qualifications are in a science subject, and those with an arts or humanities background.

The articles in the special issue

The articles in this Special Issue contribute to the growing field of research into KM, considering various elements of the research–practice nexus, and the relationships between these elements. The first article by Ostinelli can be seen as an introduction to the field as a whole. Ostinelli reviews 44 publications through a framework that considers both the level of the system with which the papers were concerned, and the locus of the need that they addressed. This framework highlights the interdependent nature of each element and the complexity of the KM field. Ostinelli argues that KM cannot be adequately understood as a linear, straightforward process. Therefore, for educational research to better inform practice, attention must be paid to both structural aspects of the process, and the motivational and cultural factors involved. The following three articles focus on the role of partnerships in mediating research and practice. First, Lillejord and Børte present the results of a research mapping exercise about university–school partnerships. They find that such partnerships, whilst showing promise for closing the research–practice gap, face considerable challenges. Collaboration between institutions is found to be complex and resource-intensive; establishing and maintaining productive learning relations between the partners calls for capable academic leadership, with attention to how partnerships are structured, responsibilities defined and work distributed. This article also provides a useful account of research mapping as an approach to literature review, an approach that has some traction within health research but is as yet not well understood in the field of education. Second, Qvortrup reports on evaluation data from large-scale data- and research-informed school development projects in Denmark and Norway. The school development projects set out to profile students' achievements and, based on these profiles, provide tailor-made training and development programmes based on the potential and challenges of every individual school and class. Initial findings from the evaluations support the hypothesis that the capacity building approach is an effective way of linking research and practice; it increases the professional capital of teachers and school leaders and most importantly, it has a positive impact on students' learning achievements and well-being. Finally, Rey and Gaussel describe three initiatives in the French context: consensus conferences, Néopass@ction and the Lieux d'éducation associés. Each project is coordinated by the French Institute of Education and is an attempt to bridge the gap between educational research, policy and practice. The article describes in detail the process of bringing researchers, policy-makers and practitioners together, and the challenges in reaching consensus between these groups, who have different cultures and social expectations.

At this point, the focus of attention moves to the understanding and use of research by teachers. First, Wieser uses a post-critical epistemology to distinguish two types of teachers' knowledge: practical knowledge which orientates teachers towards what can be achieved, and personal knowledge which includes teachers' beliefs and provides a framework for their reflection. He suggests that teachers develop expertise by transforming their personal knowledge into practical knowledge and by drawing on their practical knowledge to advance their personal knowledge. Knowledge from research may be integrated into practical knowledge and personal knowledge and support teachers in finding a suitable frame for a contextual teaching situation. Wieser's theoretical framework can, he suggests, be used in empirical research in KM. Second, Ion and Iucu present an empirical study into the use of research by postgraduate students, mostly teachers and educational advisors. Their survey results suggest that postgraduate studies provide teachers with a link between the research conducted and reported by faculties of education and their own work in schools. Academic research has a personal impact and improves the students' teaching. The surveys suggest strategies that facilitate research transfer, including developing collaborative research projects, reading research reports and enhancing communication between researchers and practitioners.

Finally, Cain takes a critical perspective on KM, suggesting that the contemporary enthusiasm for research-informed teaching can be seen as an attempt to re-fashion teaching by replacing the traditional, liberal values with which teaching has been associated, by the values of 'what works'. His review of empirical studies shows little evidence that teachers' values are currently undermined by their engagement with research but predicts that, if KM continues to advance, both researchers and policy-makers will be tempted towards this outcome.

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