A critical debate about what is meant by 'research-led', 'research-informed' and 'evidence-based' practice as related to teaching and learning

Paul Armstrong and Helen Bradbury, University of Leeds, UK

Paper presented at the 39th Annual SCUTREA Conference, 7-9 July 2009, University of Cambridge

Introduction
We work for a Higher Education Institution (HEI) in the UK which sees itself as one of the world’s leading research universities, constantly aspiring to be ‘world class’, an aspiration recently boosted by its performance in the latest Research Assessment Exercise (RAE). However, this paper will explore and challenge our HEI’s conception of research and suggest that it needs further clarity. In critically examining our HEI as a case study, we hope this paper adds to the critical literature focused on conceptions of teaching and learning provision and practice that are supposedly research-led or evidence-based.

Our reason for coming together on this is that we come from different academic backgrounds, with different disciplinary origins, and yet have ended up in the same location, managing teacher training programmes: one a ‘traditional’ PGCE for those teaching, or intending to teach in the post-compulsory sector; the other, a postgraduate certificate and diploma in clinical education for those who have taken on teaching roles and responsibilities in medical and healthcare. Both have had to be approved through the HEI’s validation procedures as well as being endorsed by external bodies – for the PGCE, through Standards Verification UK, whilst the clinical education programme is externally validated by the Nursing and Midwifery Council.

In terms of delivery, both programmes are part-time, based on a series of modules delivered over two years. One is delivered on a day-release basis; the other, uses block release. Both take for granted the necessity for ensuring the teacher training is both research-led and evidence-based. In one, the requirements for both academic and experiential evidence to inform their practice is mostly a novel experience, depending which disciplinary background the (typically) graduate teacher trainees come from and the subjects they teach; those coming from medical and health care are immersed in cultures of practice which routinely are evidence-based, and if not research-led, then research-informed. Both encourage progression to Masters programmes.

In this paper, we intend to critically examine the rhetoric of evidence-based and research-led teaching and learning and their alternatives, and we do so through a project that we undertook on behalf of a faculty in our HEI, although
we expected any outcomes to have broad application across the whole HEI, if not the university sector at least in the UK where these phrases have become prominent and rhetorical. Our HEI’s strategic priorities for improving teaching and learning include ‘research-led teaching’. We reflected on whether we had a common understanding in our own teaching and learning of what this phrase connoted, and then considered whether we felt that there was a common understanding across the HEI, which is why we bid for a small amount of funding in order to investigate how the notion of ‘research-led teaching’ is understood across the Faculty. We assumed there were two broad meanings. The first is that teaching is informed by discipline or subject-based research undertaken by the teacher, or by others accessed through publications or other sources. The second is the possibility that those who teach in the Faculty inform their teaching by themselves undertaking or reading the research carried out by others. Our view is that if we wish to develop world-class teaching then the faculty should be encouraging all teachers to consider researching their own teaching practice alongside their subject-based research. There are resources within and without the university that can be identified and drawn upon as strategies to contribute to the development of ‘research-informed’ as well as ‘research-led’ teaching through generating evidence on the effectiveness of their own teaching, and reporting efforts to try to improve the quality of teaching and learning, by – for example – sharing good practice.

Methodology
We identified a number of research questions that we wanted to address in the project.
What do we understand by research-led?
In what ways is it different from evidence-based research?
What different forms does it take; for example, does it include (a) researching our own teaching practice; (b) researching others’ teaching practice; or (c) ensuring that our teaching is informed by recent published research?
If (a), can we identify examples of good practice in researching our own teaching that is transferable to teaching to other sectors of education (research from primary, secondary, post-compulsory education, as well as professional learning and training, or to higher education teaching of subject disciplines within the Faculty)?
If (b), does that research transcend subject disciplines – can we learn from each others’ research?
If (c), what are the significant sources of support for identifying relevant and recent pedagogical research, including communities of practice from outside the University such as the HEA, Escalate, research conferences such as BERA, SCUTREA (and their proceedings – British Education Index), Professional Lifelong Learning, other work-based learning research organisations? What support for research-led pedagogies are available within the University?
To answer these questions, two stages were planned. The first stage of the project was to survey those who teach within the faculty as to their understanding of ‘research-led teaching’. An online survey was constructed which was circulated across the Faculty. Unfortunately, by the time the project went through the approval process, the University semester was already over and it was going to be a difficult time to get responses. Accordingly, we planned to send the survey out again in early in the next semester, to give others a chance to complete the short questionnaire. This was distributed electronically through the faculty office. It emerged that there is not an email list of teachers in the faculty, so the survey was sent to a wider group than those with a teaching role, with an opportunity for those who do not teach to decline to complete the survey. It was not possible to calculate the response rate without that figure, but the 38 responses were a very small percentage of all those who teach in the Faculty.

The second stage was a planned one-day event to be held early in the next semester, which would comprise a series of dialogues around the issues raised and the responses gleaned from the survey. Participation in the dialogues was by invitation only, and this included all those who responded to the survey and had indicated an interest in discussing the issues. We invited three ‘experts’ who were to lead the three dialogues planned. Two of them worked within the faculty, and who had already made public statements about ‘research-led’ teaching. The third expert was a representative of *Escalate* — a Higher Education Academy subject centre that promotes research on teaching and learning. Other key people from the HEI but outside the faculty were invited, including representatives of the Staff Development Unit and the British Education Index. Our first invitations to participate had a very limited response, and so we added to the list those within the faculty who had contributed to previous annual Learning and Teaching Conferences run by our HEI as we took this as an indicator of interest in, or commitment to, researching teaching and learning practices. As it turned out, there were very few teachers in the faculty who had actively contributed to the Learning and Teaching Conferences, apart from those we had already identified. In the survey, half the respondents reported that they had never participated in a Learning and Teaching Conference, with less than one-third having taken an active part in the annual Conference.

The three dialogues planned were to discuss the following questions:

1. How do we translate excellence in research and scholarship into learning opportunities?
2. Research-led and/or evidence-based? What does it mean for teaching and learning?
3. How can we develop strategies for improvements in teaching and learning?

**Discussion of results**

Just over half of those responding to the survey reported that they used published subject-based teaching and learning research undertaken by
themselves or colleagues. Such research was published in a range of books and journals relevant to the subjects being taught in medicine and health care, education, law, mathematics, psychology, anthropology, mental health and special educational needs. Just under half reported they had written conference papers or presentations on their own teaching and learning. As many as two thirds of the respondents thought that their teaching ‘always’ or ‘mostly’ was informed by research on teaching and learning. Three-quarters of these referred to published subject-based teaching and learning research by others. Less than 10 percent said that they had never participated in conferences or seminars at which subject-specific or generic teaching and learning was the focus of discussion. Very few mentioned Centres for Excellence in Teaching and Learning (CETLs) of which there are five active within our HEI, though none of which are located in our faculty. One respondent to the survey indicated successful bids for two bids through the White Rose Centre for Learning and Teaching in Enterprise for curricula innovation (a partnership consortium with other Yorkshire-based HEIs). In terms of other indicators of engagement with teaching and learning, just less than one-fifth of the respondents (n=7) had made successful applications for University Teaching Fellowships. Eight were members of the Higher Education Academy (whereas another five reported never having heard of it). Just over half had made use of the British Education Index and Educationline (which is the host online site for the archive of all SCUTREA papers and those of other national and international conferences) to seek out evidence on effectiveness of teaching and learning.

From the survey we were able to identify a number of issues around the meaning of research-led, research-informed and/or evidence-based teaching and learning, and strategies used to enhance the quantity and quality of research of teaching practices within the Faculty, to the dialogues on the day event. Fourteen participants were invited to attend. It was disappointing that five of the fourteen did not turn up on the day. It was a busy time of the year, which led some of those wanting to come to have to prioritise inductions and other teaching-related meetings over participating in the dialogues.

After having the scene set by a senior member of the Faculty, the nine participants in the discussion were engaged in the first dialogue by Miriam Zukas, who at the previous annual Learning and Teaching Conference in January 2008 had led a session on what the HEI’s strategic objective really meant. Her argument was that we are engaged in generating a discourse around researching teaching and learning based on two false dichotomies. The first of these is that research is separated out from teaching and learning, as two distinct activities (Zukas, 2008). This fact was bemoaned by Peter Scott at the Higher Education Academy’s Fifth Learning and Teaching Conference (Scott, 2004). In his talk, he argued that the boundary between teaching and research is ‘getting fuzzier rather than clearer’. In fact, there are some teaching strategies which are much closer to research, such as
problem-based learning, which now figures prominently in medical and health care education and training (Colliver, 2000). Yet, at the same time, the demarcation between the two teaching and research - is becoming stronger, in terms of individual careers, funding streams and institutional missions, an issue that one of us tried to address at a previous SCUTREA Conference (Armstrong, 2001). Peter Scott argues that the traditional division within ‘academic work’ persists in giving esteem to research over teaching. Those responding to our survey seemed to realise that teaching and research are integral, and it is only the bureaucratic accountability systems that force us to separate out these as discrete activities, through a process requiring us to translate research, as a separate entity, into learning opportunities. Such a view fails to grasp that both teaching and research both share the fact that they create knowledge. The idea that research generates knowledge, and teaching merely disseminates that knowledge is clearly an over-simplification, as teaching itself is a research process, and research involves significant amount of learning. The second false dichotomy is that academic disciplinary identities can be separated from pedagogic identities. As Miriam Zukas (2008) points out, research training is most often seen as part of the apprenticeship – typically a doctorate in the subject discipline, prioritised over teacher training. Only relatively recently have HEIs been encouraged to train teachers, located - as in Leeds – in staff or academic development units. In the discussion, the division between research and teaching, it was agreed, was based on outmoded notions of research – ones that assumed research provided answers to questions, assuming that it is possible to provide ‘proof’ and satisfy the demands for accountability, rather than providing a framework for a critical analysis and understanding of the complexities of issues of teaching and learning.

The term ‘research-led’ was clearly to be differentiated from ‘evidence-based’, and this was the theme of the second dialogue introduced by Phil Hodkinson. He argued that ‘research-led’ should refer to practitioners not practice. At its root, the research evidence referred to is inherently positivist, reflecting the traditional scientific view of research as causal analysis, and as such reinforces the ‘acquisition’ notion of learning. Teaching and learning is now viewed as being more complex than this model of research can reflect. Perhaps we expect too much from research in that it now has to take account of the view that learning and teaching is about knowledge production, not merely transmission nor acquisition, but is a social and cultural construction. Neither research, nor teaching, nor learning are simple cognitive processes but an embodiment. Teachers do not merely work in cultures of learning, but become mediators of learning cultures, de-privileging knowledge by exposing the undercurrent of power. Through this perspective, research is about the social practices of academics, not just knowledge generation. Those social practices take place in cultural contexts that help shape the pedagogical and disciplinary identities of academics. Moreover, there are two broad academic identities that interact and interplay in higher education – the researcher and
the teacher - and teaching. We suggest teaching is always about being engaged in a research process. As Zukas proposed, it is not possible to separate disciplinary and pedagogical practices. The whole discourse around measurement and accountability does a disservice to the research process. The calculation of staff/student ratios, the measurement of inputs and outputs as a means of reducing teaching hours may reflect policies, but is not based on authentic research enquiry.

The third dialogue was an exploration around what the HEI could do to support the enhancement of 'research-led' teaching that went beyond traditional positivist models and the process of merely citing research through our teaching. One strategy might be to encourage the recognition of the constructivist nature of participation, through – for example - action research or practitioner-based research (Jarvis, 1999) on their own teaching and their own students' learning, reflecting a more contemporary view of what research is. What constitutes research as distinct from teaching challenges us to think more theoretically about researching practice. John Field came to the dialogues as a representative of ESCALATE, but his long experience in teaching adults as well as undergraduate and postgraduate education, and his role in the Research Assessment Exercise (RAE) as an Education specialist, enabled him to add into the dialogue how other HEIs in the UK and other parts of the world, were active in researching their own practice. He reinforced a point that had emerged in the first two dialogues that there were disputes not only over the meaning of research-led, research-informed and evidence-based teaching and practice, but that their value was ‘hotly contested.’ Current arguments were unconvincing, Field argued, in an arena that was dominated by ‘vested interests’, in which relationships are ‘complex, multi-directional and non-linear’. Having been heavily involved in the RAE, Field suggested that those funding and valuing research were asking the wrong questions. Research cannot establish a correlation between quality of teaching and learning and the research process. We are – he suggested – asking the wrong sets of questions. The questions themselves need to be opened up for discussion, and the epistemological basis for the expectation of simple answers challenged. Above all, we should value the very process of engaging in research – as a strategy for learning (for life). Research as a learning strategy has all the characteristics of effective student learning – active, participatory, constructive, independent, autonomous and self-directed. What was left unresolved was what the real purposes of having research-led, or research-informed or evidence-based practice teaching actually were. The discussion focused on the notion of employability and economic competitiveness as a possible answer, but that might be the answer here and now, in the current economic climate; but is has not always been and probably will not always be. If the objective is to merely heighten the image or profile of the HEI in its quest to be world class, there are ‘cheaper alternatives’ than investing time and energy into encouraging all teachers to think about the effectiveness of their teaching, and the strategies
used by students to develop their learning, because thinking about research on teaching and learning needs to focus more on the practitioners than the practices.

**Implications**

Whilst the project itself was small-scale and - due to timing - did not attract the attention that we hoped for, the results were disseminated through the HEI. As a result we hoped we raised awareness that research-informed and evidence-based teaching means more than making reference to the latest discipline-based research. We also hoped that the discussions would encourage more teachers to research their own practice. Our HEI does have strategies in place for raising the value of pedagogical research, including the idea of University Teaching Fellowships from which candidates for National Teaching Fellowships may be nominated, and ensuring that future promotions pay more heed to contributions and achievements through teaching as well as research. And, finally, recognising that teaching *is* research.

**References**


*http://www.brookes.ac.uk/genericlink/documents/Scott%20Academy%20conf.doc.doc!*


*http://www.lts.leeds.ac.uk/news/conference_07_08/session8.php*

*This document was added to the Education-line database on 23 June 2009*