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### A survey of Scottish pedagogic research in higher education

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**Research into learning and teaching in higher education: underground and undervalued?**

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**Abstract**

Previous studies have drawn attention to the challenges faced by researchers undertaking research into learning and teaching in higher education. These challenges are particularly highlighted at times of national measurement of research excellence. It is against the context of the UK Research Excellence Framework (REF), that this paper presents findings from a recent survey of research into higher education in Scottish Higher Education Institutions. Discussion focuses on the underground and undervalued nature of some of this research. Researchers are often based within disciplines and their research is not always well known within wider higher education research discourse. Many academics face pressure to prioritise publishing within their main discipline over publishing research into higher education. There is also a lack of capacity within some Scottish institutions to return research into higher education within the forthcoming REF exercise. The wider implications of these findings are then examined.

**Introduction**

Individuals and groups undertaking research into learning and teaching in higher education face a range of challenges. These include the relatively low status of educational research when compared with other disciplinary research (Burkhardt and Schoenfeld 2003; Kaestle 1993). This situation is often exacerbated by the confusion and lack of clear articulation of the differences between the scholarship of teaching and learning and research into higher education (Kreber and Cranton 2000). In addition, the relatively low level of funding for research into higher education (Burkhardt and Schoenfeld 2003) and the newness of this research discipline all contribute substantial challenges to academics undertaking research and scholarship focused on learning and teaching in higher education.

In the UK, the current context of increased pressure on academics to produce high quality research outputs for the forthcoming UK Research Excellence Framework (REF) provides the backdrop to this study. This paper aims to provide an overview of the research into higher education taking place across Scotland with a particular focus on the nature, expertise, support for, and dissemination of, such research. Research into higher education takes place within disciplines other than education and some is essentially 'hidden' from public view. This study set out to find these lesser known pockets and to ascertain how Scotland's higher education research situation compares with the picture of UK pedagogic research outlined by Mantz Yorke over a decade ago when he found that it was "...undervalued in comparison

with other research” (Yorke 2000: 106). The discussion aims to provide insights relevant to other countries, institutions and academics.

### **Background to study**

Within higher education literature, ‘scholarship of teaching and learning’ and educational research definitions lack clarity (Kreber and Cranton 2000). Terms such as ‘scholarship’, ‘scholarship of teaching’, ‘scholarship of teaching and learning’, ‘educational research’, ‘pedagogic research’, and ‘higher educational research’ are often used interchangeably or in ways where authors often assume readers share their understandings and conceptualisations. Boyer (1990) saw research on learning and teaching as one key element of scholarship of teaching, while other authors view the scholarship of teaching as a form of excellence in teaching. Yet another conception sees the scholarship of teaching as applying educational theory and research to practice (Kreber and Cranton 2000). Meanwhile, Trigwell and Shale (2004) argue that the scholarship of teaching is both descriptive, which helps to develop understanding of what teaching is, as well as purposive – in other words it is a means to an end and therefore desirable. In contrast, ‘pedagogic research’, although a term used widely within higher education, refers more accurately to research into teaching approaches used with children. Within this study the term ‘research into higher education’ is used to try to encompass these terms.

In the UK, the national REF is due to complete its current cycle of assessment in 2014. The REF is used ‘to inform the selective allocation of research funding to Higher Education Institutions’ (REF 2012). The planning for this process is well underway resulting in institutions currently collecting information on research outputs. There are thirty six units of assessment (REF 2011) including one unit for education research. Expert sub-panels will assess the output, impact and environment for each unit. This context is not unique to the UK, with many other countries facing similar national measures of research quality. For example, the Excellence in Research Australia (ERA) initiative is another large scale national exercise. In common with other national research evaluations, ERA uses ‘a combination of indicators and expert review’ to judge the quality of research submissions (ARC 2011).

Many staff find the UK REF anxiety-provoking because the processes involved tend to involve a large degree of uncertainty and yet outcomes are often linked to staff promotion and employment conditions. Institutions are widely known to prioritise high quality research and recruitment of highly regarded researchers in the run up to the REF census date, in order to score well and to attract the highest amounts of government research funding into their universities. Research into higher education is interdisciplinary and relatively recently established in comparison to other disciplinary research, and consequently tends to have been undervalued in previous national research exercises (Yorke 2000).

Against this context, academic developers across Scotland were interested in surveying the current state of research into higher education. The Universities Scotland Educational Development Sub-Committee (USEDSC) supported the authors to carry out this research. USEDSC is a sub-committee of the Universities Scotland Learning and Teaching Committee, representing all Scottish higher education institutions.

### **Survey design, distribution and analysis**

The questionnaire developed to conduct the survey was initially designed and piloted in conjunction with USEDSC. The project was reviewed and approved by the University of Glasgow, Faculty of Education Ethics Committee.

The final version of the questionnaire comprised a 27-item survey which was organised into four sections: Information about your research; Dissemination and funding; Information about you (optional section); and a Follow-up section that ascertained whether respondents would be interested in networking, sharing and other peer-support opportunities to support their research activity. The questionnaire combined closed and open questions.

Following standard conventions in conducting survey research, a detailed statement about the purpose of the survey and how the data would be used was provided, and the disclosure of personal information (e.g. name, institution) was optional and requested only in the latter parts of the questionnaire (Oppenheim 1994).

The questionnaire was initially sent to the USEDSC online mailing list with the request that this be forwarded to colleagues who may also be undertaking research into higher education. The questionnaire was disseminated via Ultimate Survey, which enabled us to undertake a basic analysis of responses as they were received. It also allowed the data to be easily exported to the statistical analysis programme 'Statistical Package for the Social Sciences' (SPSS), which was used to produce descriptive statistics and selected cross-tabulations. This was complemented by a detailed thematic analysis that was undertaken for the open-ended questions.

## **Findings**

One hundred and twenty people responded to the questionnaire and of these respondents 84 (70%) were female and 36 (30%) male. Staff from 16 of the 20 Scottish Higher Education institutions participated in the study and one person listed their institution as the National Health Service. The sample size of 120 respondents is small as a proportion of the number of higher educational researchers we suspect are working in Scotland, although there is no accepted way of measuring the total population. We do not claim that the sample is representative of all research into higher education taking place in Scotland, but rather, it provides a useful overview of themes and trends.

Of the 120 respondents, 83 (69.2%) worked in disciplinary departments, 26 (21.7%) worked in academic development units, 1 (0.8%) in a research unit; 1 (0.8%) in registry, 1 (0.8%) in skills development (7 participants did not provide this information). Of the disciplinary departments represented, the largest number of respondents 23 (19.2%) came from medicine and health sciences, followed by respondents from education 14 (11.7%).

### ***Time spent on research into higher education***

The majority of respondents (57.5%) spend 0-20% of their time involved in research. Respondents were asked what proportion of this research time they spent on research into higher education. These results were grouped into two extremes. The largest group (40.8%) reported spending 0-20% of their research time focused on research into higher education, while the second largest group (26.7%) reported spending 80-100% of their research time focused on this.

### ***Research experience***

In the survey we asked people about how experienced they were in doing research into higher education. Most respondents 54 (45.0%) described themselves as newer

researchers with less than three years experience. The next largest group of 40 respondents (33.3%) described themselves as having some experience with four to six years of experience. The smallest group of 26 (21.7%) respondents described themselves as experienced with more than seven years of experience.

These responses contrast with a question we asked of those respondents who did not classify their main area of research as research into higher education. When asked about their relative experience in their main area of disciplinary research, the largest group of 30 respondents (47.6%) classified themselves as experienced researchers with more than seven years of experience, followed by almost equal numbers of respondents 17 (27%) describing themselves as having some experience with four to six years of experience and 16 respondents (25.4%) as being newer researchers with less than three years of experience.

### ***Higher educational research themes***

We asked respondents to list up to three areas of research into higher education which they are currently actively researching. The most commonly cited areas of research were: curriculum design; disciplinary educational research; e-learning and technology; the psychology and philosophy of learning; and personal development planning, employability and work related learning.

### ***Higher educational research methodologies***

Respondents were asked which research methodologies they used most frequently within their research into higher education. The most commonly cited methodologies were: case study 61 respondents (50.8%); evaluation research 52 respondents (43.3%); action research 51 respondents (42.5%); survey 48 respondents (40%); grounded theory 20 respondents (16.7%); ethnography 17 respondents (14.2%); and phenomenology 17 respondents (14.2%). Many individuals reported commonly using more than one methodology.

### ***Research funding***

Participants were asked if they had received funding to support their research into higher education in the past 3-5 years. Out of the 120 participants the majority, 62 respondents (51.7%) said they had not whilst 57 respondents (47.5%) had received funding (1 no response). Of these 57 respondents who had received funding, 27 had received funding through internal sources of funding within their own institution, while 18 respondents had received funding through the UK Higher Education Academy (HEA). The next most frequently mentioned sources (by three to five individuals) were: Joint Information Systems Committee, Economic and Social Research Council, European Funding, Scottish Government Funding, Scottish Funding Council and the Quality Assurance Agency. Respondents reported other types of support including being allocated time and being supported to complete formal programmes of study supporting their research.

### ***Research dissemination***

Out of the 120 respondents, 43 included citations for their educational research publications totalling 170 publications. These 170 publications are listed within a USEDSC research report (Bovill et al., 2012). When asked about how they were disseminating their research into higher education in the last three years, the most common methods cited by respondents were: national conferences 73 respondents (60.8%); institutional conferences 59 respondents (49.2%); international conferences 58 respondents (48.3%); subject/disciplinary events 52 respondents (43.3%); online networks 10 respondents (8.3%) and online blogs 10 respondents (8.3%).

When asked what other ways of disseminating their research respondents had utilised, the most frequently cited methods included: conference presentation/attendance 20 respondents (16.7%); research incorporated into teaching 17 respondents (14.2%); academic staff development 12 respondents (10%); involving students in research and discussing research findings with students 12 respondents (10%); journal paper publication 10 respondents (8.3%); sharing findings/collaborating with colleagues 10 respondents (8.3%); future programme/course design 10 respondents (8.3%); local teaching and research networks 9 respondents (7.5%); national networks and partners 8 respondents (6.7%) and used to inform institutional policy and practice 7 respondents (5.8%).

### ***Submitting to the UK Research Excellence Framework***

When asked if individuals were intending to submit their research within the forthcoming UK Research Excellence Framework (REF) exercise, 40 (33.3%) responded yes, 36 (30%) responded no, and 41 (34.2%) did not know, (3 no responses). Those who responded positively to this previous question were then asked if their institution was supporting the submission of their educational research within a specific education submission, 22 (18.3%) said yes, 24 (20%) said no, and 63 (52.5%) said they didn't know (4 responded as not applicable).

These responses do not necessarily reflect institutional plans regarding REF submissions, but instead are what survey participants interpreted as likely at the time of the survey. It is also important to be aware that institutions will have made significant progress with their REF plans in the time that has elapsed since this survey was completed. The proportion of staff who do not know whether their research will be returned and whether it will be returned in the 'education' unit of assessment is likely to have decreased.

### ***Requests for support and networking opportunities***

We asked those surveyed if they would be interested in future networking opportunities related to higher education research and 81% of respondents expressed an interest in receiving information about events. There were also 81% of respondents interested in communicating with other people who have similar higher education research interests. In addition, 83% were interested in being contacted by others who have similar higher education research interests and 78% expressed interest in being contacted about joining a higher educational research community or online network.

## **Discussion**

The survey elicited a range of interesting data that we attempt to interpret here and draw out some lessons for the Scottish and international higher education sectors.

### ***Underground research***

There was a good response rate from individuals based within schools of education and academic development units, due to the nature of the survey and the ways in which the questionnaire was circulated through USEDSC. At first glance, it was notable that there was a lack of response from some of the well known widely published educational researchers in Scotland. Many of these well known researchers are producing valuable theoretical work that has a strong influence upon others in the educational research field. It was encouraging that there was a relatively good response rate from discipline based individuals who are often carrying out practice based higher educational research from within their own subject areas. Many specialist researchers into higher education know relatively little about the research that these individuals are undertaking.

Several authors have acknowledged that academic staff tend to be encouraged to undertake research in their own discipline rather than undertaking pedagogic research (D'Andrea and Gosling 2000; Yorke 2000). This is particularly the case around the time of national research exercises, where disciplinary research is often perceived to be of greater value. In some instances, this might create another conceptualisation of the term 'underground' research, where some academic staff keep research into higher education hidden from view in order not to be criticised or sidelined by senior staff keen to prioritise subject specialist research. For other academic staff, these pressures may steer them away from undertaking research into higher education.

Individual members of the academic development community are perhaps aware of research into higher education taking place within their own institution, but not necessarily outside their own institution. The nature of higher educational research, being both undertaken within educational units as well as within subject disciplines makes it difficult to ascertain a comprehensive overview. The disciplinary nature of research dissemination and communication channels, as outlined by Becher and Trowler (2001), also makes it difficult to gain an overview of research that is carried out by specialist higher education researchers as well as discipline-based academics researching learning and teaching in relation to their subject specialism. Discipline-based academics conducting educational research within their disciplines may disseminate their work within educational publications related to their disciplines rather than within generic higher education journals. Yet, the interdisciplinary nature of higher educational research suggests it is relevant beyond these disciplinary boundaries.

Similarly, although many respondents spoke of disseminating their work at national and international conferences, large numbers of respondents also used institutional conferences and subject specific events for dissemination. This may relate to the current context of decreasing resources within the higher education sector as a whole. Collini (2012) argues that "The huge growth in the costs of 'big science' and the extraordinary expansion of the scope of the biological sciences, in particular, mean that the science budget has now soared into the billions, dwarfing the amounts spent on the humanities and social sciences" (Collini 2012:32). In consequence there are reduced funds for undertaking research into higher education and for attending international educational conferences. In addition, if researchers are, presenting at, and attending, different disciplinary events and publishing in a vast range of publications, this reduces the opportunities for building a more coherent higher education disciplinary discourse.

When we try to explore further why some higher educational research in Scotland is underground, it is interesting to consider how much time people are spending on research. Most respondents spend 0-20% of their working time on research. Of this research, there were two main groupings of respondents. Those who spent 0-20% of their research time focused on educational research (40.8% of respondents), and those who spend 80-100% of their research time focused on educational research (26.7% of respondents).

There is some cause for concern here. If there is a relatively small proportion of academics spending 80-100% of their research time on educational research, the discourse of educational research will build slowly. Higher educational research is considered to be a young disciplinary area (Ashwin 2006). In addition, academic developers are one of the groups likely to contribute to this body of research, but these staff offer an academic development service to their institution as well as

undertaking the teaching, research and administration roles of academic staff. This means they often have a lower proportion of time within their job to undertake research. Some academic developers in Scotland have also been moved from academic into Support Units, often with no requirement to undertake research or scholarship.

### ***Undervalued research***

As stated, educational research has traditionally been deemed as less valuable and credible than other disciplinary strands of research (Burkhardt and Schoenfeld 2003; Yorke 2000). Indeed the impact factors for higher education journals are often lower than the impact factors of other disciplinary journals particularly in the sciences.

Another concern appears to be that the majority of respondents were undertaking their research into higher education without funding. Whilst this could be seen as positive in the sense that funding is not necessary for some research to take place, it also implies that there is either a lack of funding for higher educational research, or individuals are not confident or successful in applying for funding for this. Although the funding appears to be coming from a wide range of possible funding sources, we suspect that in many cases this does not consist of substantial amounts of money. This under-funding of higher education pedagogic research is consistent with the situation Yorke (2000) documented across the UK over a decade ago.

Many respondents in this study did not know if their research would be returned in the next REF. Although this may reflect the timing of our questionnaire distribution, it may also reflect a lack of consistent and effective communication internally within institutions about strategies for forthcoming REF returns. It is concerning that anecdotal discussions with colleagues across Scotland in 2011, indicated that less than five institutions in Scotland were intending to return higher educational research within an education specific return in the next REF, suggesting that there may be poor capacity and momentum across Scottish institutions in this area.

### ***Developmental needs of staff***

Most respondents described themselves as researchers with less than three years experience of research into higher education. Those who had another disciplinary area as their main area of research described their experience levels as much more advanced in having seven or more years of experience in their main disciplinary area of research. This implies that staff may need developmental support in relation to their research into higher education. This situation also suggests there may be relatively few experienced specialist higher educational researchers out there who might be able to offer mentorship to less experienced individuals – although noting the earlier acknowledgement that some of the well-known, more experienced researchers in Scotland did not respond to this survey. Burkhardt and Schoenfeld (2003) argued that sustained long term professional development for teachers would contribute to enhancing the state of educational research.

Canning and Gallagher-Brett (2010) describe initiatives that they have been involved in to support pedagogic research among language teachers. In their work, they highlight some of the challenges faced by academic staff who are not from social science backgrounds: who find reading and undertaking research into higher education slightly alien to their normal understandings of research within their own discipline. Some staff may be resistant to using or valuing research methodology where their subject-based views of what constitutes reliability and validity in research makes them sceptical of the value of research approaches in education (Cousin and Healey 2003). Despite the challenges of gaining an understanding and respect for other disciplinary approaches, Kreber argues that "...university teaching and learning



is enriched by opening up our disciplinary 'silos' to more frequent cross-disciplinary encounters..." (Kreber 2009: 20). Similarly our understanding of academic practices in higher education will benefit from a wider range of disciplinary perspectives contributed to the research process.

While some people find higher educational research methodologies different from their own disciplinary research paradigms with which they are more comfortable, Stierer and Antoniou (2004) claim that, educational research methodologies are not unique but instead, they are perhaps combined in diverse and unusual ways. Becoming more knowledgeable about, and proficient in using, higher educational research methodologies is one obvious area where further development could be provided.

The majority of respondents were interested in higher education events that might be offered in future and also in communicating with others who had similar interests in terms of topics and methods. There are a range of existing national higher educational research bodies and networks in the UK, so it is interesting that respondents considered a need for further networks and events focused on research into higher education. Further work would be needed to ascertain the effectiveness of existing networks and the kinds of networks that might best suit the identified needs of those undertaking research into higher education.

#### ***Implications for the higher education sector in Scotland and internationally***

It is important to remember that there is also national and regional higher educational research taking place across the United Kingdom and Europe that will include activity in Scotland. The relatively small scale of Scotland makes it easier to gain an overview of activity taking place across the country and supports a tighter knit academic development community. This is a good starting position to enhance connections between those conducting research into higher education and gathering an overview of current practice nationally. The undervaluing of this research is somewhat more concerning. Better connections need to be created between researchers enabling larger scale and more co-ordinated research. Better support and training for researchers is needed as well as establishing more coherent dissemination systems. Otherwise it will be difficult to meet a level of activity great enough to raise the value of research into higher education in nationally recognised frameworks such as the REF, and Scottish higher education risks being under-represented in international higher education discourse.

Indeed, in a critique of the state of educational research in the UK more than a decade ago, weak co-ordination among researchers and lack of larger centres of educational research were considered two of the key problems (Hargreaves 1998). However, the commissioning of this research study by the USEDSC is an indication of the level of growing concern from some higher education groups about the need for better support and more strategic development of research into higher education. This has taken place at the same time as growing interest from the UK Higher Education Academy (HEA), who have run several successful collaborative events with USEDSC on pedagogic research in Scotland. Similarly, the Society for Research into Higher Education has also held a number of events in Scotland. Individual institutions have also set up communities to support their own educational researchers. Humes (2007) discusses a collaborative model of building educational research capacity through the establishment of a National Graduate School of Educational Research that would develop critical mass and strengthen bids for funding. This would also lead to the development of links with other disciplines which he notes as being generally poor.

Many of the researchers who took part in this survey were undertaking research that might be categorised as practitioner research. Stierer and Antoniou (2004) argue that this is often undertaken by individuals who want to enhance their own understanding of their teaching practices, with a view to improving their students' learning. This is research that is often not widely disseminated and yet has the potential to be of value to a wider audience beyond the individual programme, discipline and institution in which it has taken place. Stierer and Antoniou also argue that "pedagogic research may therefore serve a quality-enhancement function across the sector, as well as contribute to raising the status of teaching as a professional activity" (Stierer and Antoniou 2004: 278). The potential of research into higher education to contribute to enhancing teaching quality and the student learning experience does not yet seem to have been fully recognised in current debates about research impact and funding.

## **Conclusions**

This paper suggests that higher educational research is often taking place underground and is undervalued. It is likely that this situation is replicated in other countries around the world. It is essential that better communication networks are created that will enable higher educational researchers to learn from each other, collaborate, build larger scale coherent research studies and disseminate their findings in order to build capacity. Greater collaboration between researchers could help raise the impact of higher education research within national research assessments and consequently help towards building the value of higher educational research.

However, there is also a need to continue to challenge understandings of research excellence and to critique national research assessments. Education researchers need to influence the creation of a new agenda for research that has a broader conceptualisation of knowledge creation and that is inclusive of all disciplines. The acknowledgement that research into learning and teaching has a key role to play in enhancing the quality of teaching within universities is a key argument to raising the profile and perceived value of research into higher education.

It is a challenging time to build capacity within higher educational research when we are experiencing decreasing availability of funding throughout the sector. Higher educational researchers need to take responsibility for expanding the ways in which they disseminate their research to build a growing awareness and value of this. Yorke (2000) argued, "it should not go unnoticed that institutions have it in their power to stimulate educational research" (Yorke 2000: 116). More than a decade on, this survey suggests that many universities have not yet grasped this challenge to use their power to promote and stimulate research into higher education.

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