The Cinderella of Academia: Is HE pedagogic research undervalued in UK research assessment?

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Acknowledgement: This work was supported by the UK Higher Education Academy (HEA) under Grant number ASC-2053

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Abstract

Academic research is increasingly driven by research assessment exercises (in the UK, by the Research Excellence Framework). These aim to compare outputs of researchers in each university with those elsewhere, but evaluation efforts have suffered from widespread criticism. The status of pedagogic research in HE – once described as the 'Cinderella' of academia, but now an increasing part of university research activity – has also prompted some controversy. Both policy-makers and academics have raised questions about whether such research is appropriate for submission, and confusion exists over the distinction between pedagogic research and 'scholarship of teaching and learning'. This project, funded by the UK Higher Education Academy, explored the experiences of HE pedagogic researchers in REF2014, and found evidence of barriers to participation. These included concerns about quality, expertise of reviewers, and local and intra-institutional politics, all of which may have limited the inclusion of HE pedagogic research.

Keywords (3-5): Research funding and evaluation; Impact; Research Policy; Research/teaching; pedagogy

Introduction

Writing about higher education (HE) pedagogic research in 2002, Alan Jenkins memorably described it as having 'Cinderella status':

"Though often patronised with words of encouragement, it has not really been recognised or valued by the 'ugly sisters' of the QAA¹ and in particular the Research Assessment Exercise²." (Jenkins, 2002, p.1).

His description of pedagogic research invokes its liminality – sitting slightly uncomfortably between teaching and research in universities, yet arguably not really being valued in the assessment of either (Yorke, 2000; MacFarlane, 2011; Cotton & Kneale, 2014). In part, pedagogic research has an image problem: Its very name is misleading, as the term is most commonly used for research in higher education, despite the Greek root, 'paid', meaning child. This confusion is compounded by the somewhat artificial distinction made by Boyer between 'scholarship of discovery', typically associated with traditional research, and 'scholarship of teaching' - seen by some as encompassing pedagogic research (Boyer, 1990). Arguably, this division encourages pedagogic research to be viewed as something different and distinct from other research areas and activities or, as Macfarlane (2011) argues, as 'not

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¹ Quality Assurance Agency – responsible for assuring threshold standards and quality in HE teaching

² RAE - a pre-cursor to the current UK Research Excellence Framework (REF)

proper research', unlike subject-based research which is 'serious, scholarly and well-respected' (p. 127). Yet this distinction is belied by Tight's (2012) paper which evidences an increase in high quality publications in HE research, of which a significant proportion appear to be pedagogic. Analysing data on papers published in high quality HE journals, Tight (2012) identifies 59% as being focused on teaching and learning, course design or the student experience (all of which might reasonably be included in the category of HE pedagogic research). This challenges the popular view of pedagogic research as being of "little intellectual value beyond the improvement of an individual's practice in a localised context." (Macfarlane, 2011, p. 127).

These issues become particularly pertinent given the increasing dominance of national research assessment systems. Hicks (2012) reports that 14 countries had either launched, or were planning to launch, some kind of performance-based research funding scheme by 2010. Under these schemes, universities are invited to participate in a competitive market-based process whereby research undertaken in each institution is evaluated, and funding allocated depending on research assessment. Research funding in the UK is currently managed through the 'dual support' system, with funding for specific projects distributed via the Research Councils, and additional (QR, or quality-related) funding for infrastructure development disbursed directly to institutions as a result of research evaluation exercises conducted at 3-6 year intervals (most recently the Research Assessment Exercise, RAE 2008, and the Research Excellence Framework, REF 2014). REF 2014 involved 154 higher education institutions with 1,911 submissions across all units of assessment (UoA), comprising 52,061 full time academic staff.

Universities commit a huge amount of resources to preparation for research assessment, yet widespread academic and popular debate surrounds both its purposes and processes (Gilroy and McNamara 2009, Burrows 2012, Dean *et al.* 2013, Reborra and Turri 2013, Khazragui and Hudson 2015). According to Sayer (2014) the REF is not fit for purpose for the following reasons: it costs too much; it is not effectively peer reviewed (compared to journal standards); it undermines collegiality; it discourages innovation; and it is redundant, as it simply replicates other hierarchies. Further, Régibeau and Rockett (2014) created a fictional 'Nobel Prize' department – but found that it did not stand out when ranked using REF-style metrics. The potential for increased use of metrics in future REF iterations seems limited since, according to an independent review of the area, 'The Metric Tide' (Wilsdon et al., 2015), there is considerable scepticism on behalf of all stakeholders that any metric could provide an effective replacement for peer review. Concerns about 'gaming' the system if metrics became more widely used were also reported.

A recent innovation in the UK research arena has been the increasing focus on the broader societal impacts of academic research. Case studies evidencing such impacts were a new feature of REF 2014, and predicting future impact increasingly forms part of bids for research funding. However, questions such as what research impact means, how it should be measured, and whether it will lead to perverse incentives for academic research - including a lack of blue-sky or fundamental research - remain live debates (Donovan 2011, Martin, 2011,

Penfield et al. 2014). Concerns have been voiced about both the purpose and the means of evaluating impact, especially when used as a determinant of funding streams (Watermeyer 2014, McNay 2015). It is clear that impact is multi-faceted, can be reached through different pathways, and challenges remain in determining causal routes from research to impact (Phillips 2012).

The inclusion of impact as a measure in REF 2014 should, in theory, have benefitted pedagogic researchers, whose focus is often on the practical implications of teaching and learning research. However, there were a number of features of the definition of impact used by HEFCE which seemed problematic for such researchers. For example, the submission rules explicitly stated that "Impacts on students, teaching or other activities within the submitting HEI are excluded" (HEFCE, 2011). Other impacts within the HE sector, including on teaching or students, could be included only where "they extend significantly beyond the submitting HEI" (p. 27). In effect, this meant that HE research which impacted on 30,000 students in a single university could not be included as a case study, whereas research impacting on far smaller numbers of students in schools could be included. This seemed likely to limit opportunities for recognition of HE pedagogic researchers and was also, arguably, a missed opportunity to cement research-informed teaching as an important principle in HE more widely. Interestingly, the Stern review (2016), which was produced after this research was completed, takes a very different line on research which impacts on teaching.

There have been relatively few studies exploring academics' perceptions and experiences of research evaluation (although Harley, 2002, looked at the RAE, finding very mixed views, and McNay, 2015, studied the REF, gaining largely negative feedback from respondents). There is even less in the published literature on pedagogic research in this context. This project thus explored issues surrounding the submission of and value given to HE research within the REF to answer the following research questions:

- What proportion of the impact case studies submitted through UoA 25 in the 2014 REF were targeted at each sector (e.g. early years, schools, further education, higher education)?
- How does the proportion of case studies in HE relate to the proportion of outputs?
- In what ways and to what extent did REF guidance about impact case studies affect submissions?
- In what ways and to what extent do stakeholders believe that the REF impacts on HE pedagogic research?

In particular, we were seeking to investigate individuals' experiences of undertaking HE pedagogic research and of having such research assessed for REF2014, and to learn about the experience of developing impact case studies for the REF. We were especially interested in the number of HE outputs, where publication takes place, how the submissions were compiled, and the effect of the rules for eligible impact case studies on UoA25 which embraces education at all stages from early years to life-long learning (see also Kneale et al., 2016).

Methodology

The study spanned five months with a programme of desk-based research, interrogating the REF submissions and impact database³, and a literature review which encompassed a range of sources from peer-reviewed journals to media reports. The proportion of REF outputs that were focused on the HE sector was estimated by searching for 'higher education', 'HE', or 'university' in the fields of title and volume title to estimate the number of publications in this sub-discipline. A similar process was used to estimate the proportion of impact case studies focusing on the HE sector, searching the titles of all case studies entered into the Education UoA. This approach is not without its limitations – in that it will not have identified articles or impact case studies using related but different terms. It was also not possible in the desk-based study to distinguish between HE pedagogic research and policy research. However, the approach was consistent across both aspects; thus the data should be quantitatively comparable. Future research might consider a more detailed breakdown of the content of papers submitted to the REF – and this would allow a greater level of detail about the types of HE research which find favour in this evaluation.

The desk-based research was supplemented by fifteen telephone and face-to-face interviews with participants from thirteen HEIs (details in Table 1 below). This was an exploratory study, gathering qualitative data through a series of in-depth semi-structured interviews, using an interpretivist approach. The aim was to illustrate key issues from an insider's perspective and, for this reason, purposive sampling was utilised, focusing initially on Unit of Assessment (UoA) co-ordinators for Education submissions, identified through contact with UK School of Education research leads. These were followed by further interviews with selected stakeholders having interest and expertise in pedagogic research. The latter group were identified through networks including: National Teaching Fellows (NTFs); the Heads of Educational Development Group (HEDG); and the Higher Education Academy (HEA) pedagogic research network. These interviewees provided valuable insights into the opportunities and challenges of undertaking pedagogic research in the context of REF2014. We also interviewed one university impact co-ordinator, one institutional REF co-ordinator and one REF assessor to gather wider perspectives. Ethical clearance for this phase of the research was sought and given by the University of Plymouth Education Research Ethics Committee.

Table 1 about here

Transcripts were coded thematically according to the research questions and issues identified from the literature. Direct quotes were anonymised to preserve the confidentiality of the participants. Based on a small sample, this study does not make claims to generalisability, but rather illustrates some of the key issues which may resonate with others

³http://ref.ac.uk/ and http://impact.ref.ac.uk/CaseStudies/

working in this field – and possibly also to those working in practice-based research. Further research would be of great interest in terms of exploring, with a wider group, the provisional themes identified here.

Findings

1. Desk-based analysis

The desk-based analysis of outputs and impact case studies from the REF databases is summarised in table 2. In terms of publications, our methodology provides a minimum estimate of the proportion of the submission which was HE-focused at 9%. The great majority of HE-related outputs were in sector-specific journals, with the highest number of outputs (64) being published in *Studies in Higher Education*, followed by *Higher Education* (28), *Assessment and Evaluation in Higher Education* (25) and *Teaching in Higher Education* (20). Although the *British Educational Research Journal* was the most frequent outlet overall for UoA25 (with 155 papers), only seven outputs with higher education or university in the title were published here. Aside from the *British Journal of Sociology of Education* with ten HE-related outputs, the *Journal of Geography in Higher Education* and *Arts and Humanities in Higher Education* were the most frequent discipline-specific HE journals with three outputs each. It should be noted, however, that the methodology utilised will tend to over-estimate the importance of journals with Higher Education in their title. Altogether, our search identified a total of 122 journals publishing HE outputs, with half of these published in the top ten journals.

Table 2 about here

For Impact case studies, a similar picture is seen, with HE-focused case studies forming (at a minimum estimate) 8% of the total number submitted through this UoA. Thus, overall, HE research appears to provide a relatively low proportion of both submitted outputs and impact case studies. The comparatively low level of HE research is also indicated by the fact that of 106 named research groups, only five explicitly included HE in their title. Although our analysis technique may well have under-estimated the proportion of HE research entered into the REF, it does appear that HE research is somewhat under-represented, compared for example to the proportion of the education budget which goes to the tertiary sector (16%), or to its economic contribution. However, the potential barriers to submission of HE research in the impact case studies are not seen in this data-set, with both outputs and case studies in HE at a very similar level. It is, unfortunately, not possible to gauge how successful HE case studies were in comparison to those focused on other sectors since the individual case study ratings are not available, only for the unit as a whole.

2. Possible reasons for low submission rate of HE pedagogic research in REF2014

Whilst the quantitative findings suggest that pedagogic research may be *under-represented* in the REF, the qualitative data indicate that it is perceived to be *under-valued* by those

making decisions both about inclusion into REF, but also in wider decisions about funding of research and career development. Analysis of the interview data offered several competing explanations for the low submission rate of HE pedagogic research. These can be summarised as follows:

- a) HE pedagogic research did not meet the quality threshold for REF
- b) HE pedagogic research was not well understood by the UoA co-ordinators
- c) Political issues limited the submission of HE pedagogic research

These explanations are considered in turn below:

a) HE pedagogic research did not meet the quality threshold

Some of the UoA co-ordinators contended that pedagogic research at their institution was limited in quantity, rarely met the quality threshold, or was small-scale and localised, thus it was rarely included in the REF submission:

"We looked at the work and there was nothing that was above two star and most of it wasn't even that in our opinion, and that was essentially a process where we took the view that of course these are people who are working within their particular specialisms who haven't been engaging with an education audience and were doing very micro level classroom based work which was worthy in its own way but wasn't REF-able you know... had no theory in it..."

"The typical paper was 'I tried this new teaching methodology with my class and they liked it' which was essentially what the papers were which was a good thing but you know we felt wasn't REF-able."

Key concerns focused on sample size and limited use of, or contribution to, theory. What was interesting was that some of the supporters of HE pedagogic research also seemed to think that it should not be judged by the standard quality thresholds for research (i.e. that it was a special case – or, in one respondents' view – that the whole of the Education submission should be treated differently and have a lower quality threshold). There were also respondents who explained why their research might not be as highly rated as other areas. These included lack of support for HE pedagogic research (thus the idea that such research is not REF-able becomes a self-fulfilling prophecy since it does not receive the same institutional support and funding as other research areas):

"As a centre we are among the least well-funded in the university yet in proportion to our internal income earn the most relative external income. Other departments have much more internal funding to support the many different aspects of research culture such as their webpages, their research admin, their profiles and publicity ... This makes it much easier to achieve all the necessary aspects of a REF submission."

However, it should be noted that there was some doubt about the fairness of the internal review and selection process as well as the subsequent Panel reviews. Some suggested that

selection was somewhat *ad hoc* or based on personal preferences, and statements from UoA coordinators indicate the difficulty that they had in making decisions on quality:

"Issues about making the finer grained distinctions between what was two star and what was three star I think that is the boundary that caused us most angst."

This could lead to some co-ordinators giving the benefit of the doubt in cases where research was felt to be borderline, but whether this generosity was evenly distributed across the range of submitted work is not clear:

"I did reject one or two initially but as I realised we had a lot with 3 reasonable outputs and one more dubious I decided just to submit them all and then build quality next time as there was not sufficient time to change some things. I wanted them to feel their work was valued and to have them in the next REF where quality would be more of a focus."

"In terms of the size of the submission it wasn't a problem because we could have accommodated everybody who was of a certain standard but we were ever mindful of the funding formula which dictated, you know, you don't really want a whole load of tail."

Where arguments over quality did arise, there were reports of extended external reviewing to try and reduce the potential for complaints to be made about the selection process:

"There were a few people at the time who insisted their work was good enough and it was double and triple and sometimes quadruple refereed so that they had lots and lots of different people coming back and saying no it's not of the standard and these are the reasons for it and eventually those people accepted it too."

b) HE pedagogic research was not well understood by the UoA co-ordinators

An alternative perspective was given by a pedagogic researcher, who felt that the UoA coordinators did not necessarily have the expertise to evaluate their research:

"There are two profs who give us a lot of attention, that are very supportive... They are very happy to talk about funding opportunities, read our draft publications, talk to us about significance, originality and rigour. So, on the one hand, very supportive. On the other hand, do they understand our work? Do they understand our methodologies and our approaches we use? I don't know, you know, they are school teachers."

In some cases, especially where the UoA coordinator had experience of the field, HE pedagogic research was felt to be fairly represented and valued within Education but even this co-ordinator identified issues elsewhere:

"It was valued highly in our submission (about half HE, half other phases) perhaps because I have worked in all phases and value it all and see much theoretical work as

generic ... but actually I know other departments could have submitted HE pedagogy but didn't value it both in our uni and elsewhere."

This was exemplified by UoA co-ordinators who reported being 'offered people' from other departments in the university. The majority of UoA coordinators in this study reported that they had included HE pedagogic researchers from other disciplines and in some cases they stated that they would be making sustained effort to locate and support these in future submissions:

"There were people out in the faculties that I would have made sure were eligible but they don't seem to have been submitted and I think that may well have been because we didn't get the policy going early enough."

"We know we have to improve our quality of outputs for next time and systematically collect our impact data and are working on this but also on finding the other hidden researchers into pedagogy who permeate the system and are not generally valued in their own departments."

"I have had so many lovely comments and emails from people who have felt their sometimes substantial pedagogic research was simply not valued by the more elitist attitudes in their own disciplines."

However, even if successful in the internal review process, there is no guarantee that the national REF reviewers would have expertise in any particular area. One UoA co-ordinator, who had been to a workshop run by a member of the Education REF panel nationally, reported a similar concern about lack of understanding:

"I was at a workshop where one of the education panel members was on the platform giving a talk ... and this person said that from her perspective at least anything that didn't have a large dataset was automatically one star so that is an interesting argument, it is almost impossible for educationalists to have large data sets with longitudinal studies and when I looked up this person they had a natural science background ... so if you were unlucky enough to have your work read by this person you almost automatically were going to get one star."

Despite these issues, respondents felt that the peer review process could not be replaced by metrics in the social sciences:

"on one level [impact factors] are meaningless because they are pseudomathematical, secondly the shelf life is different from natural science ... it wouldn't work in the social sciences and the reason is the impact of a science paper is extremely high in the first 7 months, maybe 12 to 13 months maximum, in the social sciences there is between 6 and 8 years so it covers at least two audit cycles...".

c) Political issues limited the submission of HE pedagogic research

There were a range of claims about the ways in which institutional politics might lead to the under-representation of HE pedagogic research. Some respondents believed that HE pedagogic research (particularly if undertaken outside a school of education) was

consistently under-valued by those co-ordinating submissions (who were mostly within the schools of education). There were also some respondents who argued that the REF processes were often opaque, and decision-making unclear:

"Because I didn't engage at certain levels of decision making I was not privy to discussions that went on about how it was going to be organised or how decisions were going to be made, what the cut-off grade was going to be and that was all Chinese whispers"

"If you're not part of the REF crowd you don't get involved in the REF process, and to be honest, because I've had so much other stuff to do I haven't busied myself with it too much."

There were also reports of staff who had been discouraged by heads of department from pursuing what was perceived as being 'lower status' pedagogic research. For example:

"The basic line is you do it [research] in your science not in relation to pedagogy and I think that is probably not the right answer because the level of pedagogic research they are doing is such that in many ways I would like them to be able to concentrate on that and that to be acknowledged and recognised."

This in turn requires senior academics within the disciplines to recognise and value pedagogic research as a valid career route.

Other responses came from researchers working outside of traditional academic units, or on teaching-only or professional services contracts:

"I wasn't eligible because I wasn't on an academic contract. And what was really interesting was that they weren't prepared to change my contract"

"My team is in a double bind of being seen as professional services as well as being focused on teaching, so in combination you've got the double bind of two lower status activities ... I do feel that there are lots of glass ceilings in place and if you're not in the right place... then you're not able to achieve things."

This led to one member of staff leaving their job, disillusioned with the REF process and their ineligibility despite them having submissible papers (according to the UoA co-ordinator).

Given the difficulty reported by UoA co-ordinators of making fine-grained distinctions between the star ratings used in the REF, it seems at least plausible that more generosity might have been offered to the researchers who were closer to the co-ordinators either structurally or in the discipline of study. Indications about the political trade-offs which were made in decisions about who to submit were widespread in the interviews, with one respondent talking about the tension between inclusivity and quality, as well as differences in grading between departments. A desire to avoid conflict was also a recurring theme:

"Quite a lot was submitted that wasn't selected to be returned after the refereeing process ... most people took it on the nose and others understood the reason for it

and hopefully it's been managed this time with less blood on the carpet than before, I certainly haven't had any irate people come to me to say why the hell wasn't I returned."

It is clear that strategies were deliberately designed to alleviate bad feelings within their departments. As reported in the literature, and recent media reports (see Grove, 2016), the selection process can be seen to be deeply divisive and undermine collegiality, as well as put those responsible in an uncomfortable position.

3. Perceived issues with Impact Case Studies

No less contentious than the selection of individual staff entrants to the REF, was the selection of impact case studies. Inclusion of individuals was critically linked to the number of case studies which could be provided:

"in terms of the size of the submission that was driven by the case studies so we sent out a 'have you got a case study' e-mail. [In the end] we actually had more case studies than people..."

Most participants in this research did not report directly limiting the size of submission based on the need for case studies, but there was clearly a co-evolution of the submission size alongside this process and in some cases a nervous awareness of the balance:

"We didn't actually ever take the decision that we were going to cap the number of people we were going to submit, it was a much more organic process than that."

"Both things were going on at the same time. We never overtly said lets restrict the number of people we put in to match the number of case studies we have got but it was somehow all part of a holistic thing that was running around people's minds particularly when we got closer to the submission."

One UoA co-ordinator entertained a secret hope that not all the 'possible' REF entrants would achieve the appropriate level – since this would mean that an additional case study was required! In contrast, there were reports of individuals who did not quite meet the criteria for submission of outputs but were entered because of their contribution to a case study:

"there was a little bit of horse trading around that ... we had one person who we weren't quite convinced met the 2.5GPA⁴ but because they were significant in the impact case study as well in the environment we just felt it would be a bit silly for professional reasons and also for the coherence of the story not to include that person."

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⁴ Grade Point Average – all outputs were assessed on a 1 to 4* rating. See: http://www.ref.ac.uk/panels/assessmentcriteriaandleveldefinitions/

In another example, a researcher was submitted as part of a case study – but the outputs themselves were not put in as they fell below the internal GPA cut-off.

In some universities, funding was provided to support the search for evidence for impact case studies and, even where direct funding was not provided, the indirect costs in staff time were felt to be significant:

"Once the people were decided, the impact cases studies involved constant consultation and revision as this was a new process about which no-one seemed to be very knowledgeable so it was much easier to work with current staff in the university who could be supported to go back through emails and letters to their various contacts and networks etc to contact people who would confirm their impact locally, nationally and across the world."

Nonetheless, the majority of interviewees could see the case for measuring impact, and felt that in some cases it had enabled support for colleagues:

"A very high proportion of colleagues are occasionally frustrated that these things take time ... but we were delighted that impact is an important part of it and I think many of us feel it's simply reinforced what we were doing already..."

However, there remained concerns that areas where impact (particularly on policy) was relatively easy to evidence could be favoured above research where benefits were more opaque:

"I don't know about the whole impact thing. I think it very much channels and distorts the activities of academics and I have seen that with myself. I tend to do very little these days without thinking about what impact it might have – so you can interpret that as a good or a bad thing but it seems to have an inordinate amount of influence on what we do."

It was also clear from the data that the sector was learning how to 'play the game' and the novelty of thinking about, and evidencing, impact meant that many institutions were initially unprepared:

"I think the main lesson we have learnt is and I guess everybody is saying is about the need to explicitly collect data about impact in a way we would never have dreamt of doing in the past."

Collating evidence about impact was something that many individuals and institutions felt illprepared for. Interviewees cited a lack of understanding and a lack of training as real barriers. Although there was little evidence that any of the issues around impact were specific to HE pedagogic research, there was widespread agreement that the guidance was problematic.

Discussion: Pedagogic research as the Cinderella of Academia

The title of this paper draws on the fairy tale, Cinderella, as a metaphor for pedagogic research, undervalued by the ugly sisters of teaching and research evaluation. And the findings of the study illustrate some of the risks which are associated with occupying the borderland territory between teaching and research as pedagogic researchers so often do. Despite overt endorsement in all institutions of teaching as a priority, the rewards for research still drive much academic activity, and pedagogic research (which in theory could enhance both activities) is not necessarily valued by either:

"...it is clear that to progress to the most senior positions, a research record is usually needed, and that pedagogical research is not valued as highly as other disciplinary research." (Locke, 2014, p. 24)

This issue was explicitly alluded to by some respondents in our study who noted the limited career opportunities open to those who follow a pedagogic research route and the scepticism towards promotion based on teaching and learning even where this is theoretically possible.

Recent work on changing academic careers has noted the increasing tendency for diversification of academic roles, and reduction in focus on the generic academic who engages in teaching and research (Whitchurch and Gordon 2013; Locke, 2014). As teachingonly roles become more commonplace in HE, the potential for new routes to progression and promotion may open up – but the position of pedagogic research in this new world remains contested. Often cited as a requirement for teaching-only roles, the implication that pedagogic research is somehow different from other research seems to be becoming increasingly embedded into institutional structures. Yet, ironically, some respondents in our study spoke enthusiastically about the alternative research culture which was arising amongst those on notionally teaching-only contracts. In one case, staff on the teaching route were reported to be "building a different kind of research community", studying for doctorates and engaging in more practice-based research, freed from the constraints of the REF focus. Arguably, this is indicative of the widespread compliance with research policy edicts, despite academics' philosophical opposition to such policies or their implementation (Leathwood and Read (2013). Even the explicit division of roles in universities into two separate strands has not reduced the overwhelming focus on the high status activity of research rather than teaching.

Despite recent efforts to embed research-teaching links across higher education, in the minds of many academics research and teaching remain as competing rather than complementary activities (Cretchley et al., 2013). In attempting to bridge this division, pedagogic researchers may risk remaining forever second class citizens in the research world. As Macfarlane (2011) argues:

"The only important distinction is between good research and poor research. However, it is hard to undo the now widespread perception that research about 'learning and teaching' of any kind exists in some sort of separate, box marked 'second rate'". (p.128)

To understand why pedagogic research has such a credibility issue, it is necessary to return to consideration of SoTL – the Scholarship of Teaching and Learning (Boyer, 1990). Unclear in definition, SoTL potentially encompasses a range of teaching and learning activities including "...quality and enhancement of learning; excellence and recognition; and pedagogic research" (Fanghanel *et al.*, 2016, p.10). Whilst Boyer's intention in defining different types of scholarship seemed to be to increase parity of teaching and research activities, we would argue that this has not been the outcome as far as pedagogic research is concerned. To most academics, scholarship means reading papers and being informed, not undertaking primary research. So when pedagogic research and SoTL are conflated, it implicitly devalues the former. To make further progress in developing the profile of pedagogic research, and integrate it into research assessment, high quality pedagogic research should be viewed as something quite distinct from SoTL. Whilst it may contribute to teaching enhancement in HE (as may discipline-based research through the research-teaching nexus), until it is viewed inherently as a research endeavour, rather than as 'scholarship', submitting HE pedagogic research into the REF will continue to be open to challenge.

Within our data there are a multitude of examples of academic resistance to the compartmentalised and hierarchical view of research as promoted and legitimised by the REF (both by pedagogic researchers and UoA co-ordinators). These include explicit and implicit critique of the evaluation process (as elitist, misinformed or irrelevant); failure to engage with the REF, justifying this by outlining the importance of other aspects of academic work; or prioritising staff cohesion and motivation over maximising REF outcomes, as a number of UoA co-ordinators admitted doing. Nonetheless, the potential for such actions to make any substantial change to the policy context seems low, as Leathwood and Read argue:

"There is plenty of evidence of academic resistance to new managerialism, and indications that the individualised practices such as speaking out, avoidance or minimal compliance may help to mitigate the impact of new managerialism for some individuals (or potentially for some groups), but the dominance of new managerial discourses and practices across the sector does not appear to have been significantly reduced." Leathwood and Read, 2013, p. 1165)

Thus, despite questions about whether the REF, or other similar exercises, is 'fit for purpose', it seems unlikely that it will disappear at any time soon.

There are, however, ways in which future iterations of the REF might work towards mitigating the divisions between teaching and research. One would be to follow the New Zealand approach, in which the research assessment explicitly aims to "Ensure that research continues to *support degree and postgraduate teaching*" (see McNay, 2015, p. 26). Alternatively, the next REF could pursue the approach of the Netherlands where teaching and research are reviewed together (McNay, 2015) rather than, as is planned in the UK, introducing increasingly complex bureaucracy to support the Teaching Excellence Framework (TEF) to emulate the REF. There are positive indications of change in the Stern review (2016) – including broadening the criteria for inclusion of impact case studies:

"...we are recommending that the REF impact element more broadly recognises the impact of research on teaching" (p. 31)

Such revisions to the process would, if implemented (the Stern review is only advisory), be a positive change of direction, and might open up opportunities for some serious evaluation of the impact of university teaching on students' future lives.

Conclusion

This study provides an important contribution to the live debate about the significance of HE pedagogic research, and its value in research assessment. The pressure to engage in research practices which align with research assessment processes is a largely unquestioned part of academic life in the UK. This study offers mixed findings about the value given to HE pedagogic research in one such exercise, the UK REF. The starting point for this study – the idea that the HEFCE definition of research impact might lead to under-representation of HE pedagogic research – was not found to be supported by the data, although there is some evidence that HE pedagogic research was under-represented in UoA 25 overall (but equally so in outputs and impact case studies). The Stern review (2016) offers some positive indications for change in future iterations of the REF. Further research exploring the impact of these changes (if put into practice) would be of significant interest.

A positive finding of this study is that there is evidence of HE pedagogic research providing a significant (if relatively small) contribution through the Education submission to the REF, and that at least some pedagogic research is reaching a level which makes it suitable for entry. Given the history of credibility problems for pedagogic researchers, this should be viewed as a success story. Nonetheless, the research also identifies structural and political factors within institutions which may be undermining potential progress for HE pedagogic researchers in the UK. We believe that the UK focus of this study is instructive in its own right since a similar audit culture has permeated much of the global HE landscape thus these problems may resonate with other national jurisdictions. However, analysis of submission rates of pedagogic research in other contexts would be of great interest in building up a picture of the state and status of HE pedagogic research internationally.

Looking forward, what could HE pedagogic researchers do to strengthen their position within universities? Whilst a focus which allows pedagogic researchers to align with both teaching and research agendas within institutions offers a potential strength of pedagogic research, existing hierarchies between teaching and research in universities make this position vulnerable. Moreover, the move towards a separation between teaching and research contracts seems to require a clearer understanding of where pedagogic research 'fits' than is currently the case. To enhance the opportunities for REF submission (increasingly seen as the dividing line between research and scholarship), HE pedagogic researchers should work on ensuring that their research is (inter)nationally focused and/or theoretically grounded. They should engage with gatekeepers at an early stage to make sure their research is both known and valued. And finally, they should emphasise the potential for HE

pedagogic research to bridge the link between REF and TEF, the new 'ugly sisters' of higher education.

Word count: 7417 including references

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Table 1: Interviewee profiles

HEI type	REF role	Gender	
New ⁵	UoA co-ordinator	F	
New	UoA co-ordinator	F	
New	UoA co-ordinator	F	
New	UoA co-ordinator	F	
Old	UoA co-ordinator	M	
Old	UoA co-ordinator	M	
Old	UoA co-ordinator	M	
Old	UoA co-ordinator	F	
Old	External consultant/REF assessor	M	
New	Institutional REF co-ordinator	M	
New	Institutional Impact Officer	F	
Old	Pedagogic researcher	F	
New	Pedagogic researcher, NTF	F	
New	Pedagogic researcher, HEDG member	F	
New	Pedagogic researcher, NTF & HEDG member	F	

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⁵ New universities (sometimes known as 'post-92' universities) refer to those created after the 1992 Further and Higher Education Act. Old universities refer to those created before this date.

Table 2: Proportion of HE-related outputs and impact case studies in UoA 25 (Education)

Outputs			Impact case studies		
Number of HE-focused outputs	Total number of outputs	Proportion of total outputs in UoA	Number of HE-focused case studies	Total number of case studies	Proportion of total case studies in UoA
502	5,519	9%	17	216	8%