

Research assessment in higher education: The impact on institutions, staff and educational research in Scotland

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ABSTRACT

The UK Research Assessment Exercise (RAE) has profound effects on research, but also on teaching, individuals' careers and institutional competition. This paper exemplifies these effects for educational research in Scotland. It examines the politics of research selectivity and the impact of new forms of UK government on assessment and funding. Procedures, developments and difficulties of judging research quality are discussed, and commentary is offered on the ways the system has been received by staff with differing views about their role in higher education. Reorganisation of higher education in Scotland and rather modest performances in education from previous RAEs are addressed along with measures that have been taken to improve research quality and capacity. However, currently there are considerable unknowns about the move after 2008 to a new UK scheme, the Research Excellence Framework (REF), which is likely to depend heavily on metrics and less on peer review. There might even be a different approach just for Scottish institutions.

Research accountability in Scotland

Like the rest of the United Kingdom (UK) over recent decades, Scotland's higher education system has had a commitment to maintaining its standards through external examiners, validation exercises, quality assurance requirements and advisory bodies. Despite some shortcomings, these measures have encouraged recognition that most aspects of the system can be trusted and sustained to provide solid basic standards of education across a range of institutions.

The Research Assessment Exercise (RAE, www.rae.ac.uk), however, has been a different kettle of fish and, as we approach the publication (expected on 18 December 2008) of the results of the latest exercise, we have been in the thick of national research accountability for more than two decades. This exercise was established as part of the government's intentions to bolster competition among institutions in order to foster world class research and to support selectively what is the best of research. Research selectivity was explicitly stated in the early years as a major purpose and, although the language has been modified, that aim is still central to the process and has substantial implications for institutions' status and funding. That priority was given a significant boost in 1992 with the redesignation as universities of UK polytechnics and Scottish central institutions. Without a massive financial input there was no way that research funding could be sustained on an even and equal base across this greatly increased sector of education. Perhaps a measure of the success of the subsequent selectivity has been the fact that following the period from the 2001 RAE a mere ten UK

universities (out of 114), following their earlier high assessment ratings and so generous funding, secured about 40% of the funding won from the UK Research Councils.

Many argue, of course, that there are downsides to selectivity. For example, David Watson has suggested that:

It is the historical achievements of our *collaborative* gene that the Government has put under threat. It may mean that in our desperation to ensure the international competitiveness of a few institutions we have lost sight of what it is to be a world class sector. (Watson, 2007: 14; emphases added)

More recently the *Times Higher Education* (16 October 2008: 4) has reported considerable concern among post-1992 universities arising from the high proportion of Funding Councils' research funding (76%) going to just 19 of the pre-1992 universities with the emphasis on research of international significance. This was seen as an indication that the RAE had become "super-selective", failed to reward universities that carry out research of national importance and ignored the importance of spreading money across the sector for research-informed teaching. It remains to be seen whether this pattern of reward will be maintained following the 2008 round of assessment.

In practice, the impact of the RAE on institutions and individuals has been profound. Relationships between universities, and between people within universities, have frequently been shaken. The resolute focus on research has had a strong influence on the increase in quantity of research publications, with some evidence of improvement in quality, but it has also affected the standing of teaching in higher education and of individuals with careers that focus on teaching. Research intensive universities have received a large share of the funding, while those with lesser research records have had little financial support for their plans for improvement. Pressures on staff have increased and, even in the most eminent contexts, the demands of accountability have led to instances of research misconduct (editor in chief of *Nature* as reported in *The Times Higher*, 21 September 2007: 2).

The RAE is, of course, a UK system and although universities in England, Northern Ireland, Scotland and Wales have, in the past, operated as UK institutions, a number of changes have occurred over the twenty years of the assessments. There are now separate funding arrangements in different parts of the country and in Scotland, which is the focus of this paper, the Scottish Funding Council (SFC, www.sfc.ac.uk) has responsibility for further education as well as higher education. An implication of the separation of funding councils has been that the financial systems of reward for RAE success (or otherwise) have differed among the various nations within the UK. Furthermore, significant responsibility for higher education has been devolved from London to the Scottish Parliament (and the Welsh Assembly). Changes to higher education in 1992 followed from an increase in numbers of UK universities; in Scotland there are now seven in comparison with eight in 1992. The current requirements placed on institutions wanting to gain university status in Scotland are arguably more stringent than those in England, and patterns of mergers between colleges and established universities vary among the different nations. In Scotland, the former colleges of education have all merged with six of the universities and significantly influenced the latter's research profiles.

There has been plenty of polemic and personal anecdote about the impact of the RAE on Scottish educational research, but little in the way of disciplined research. Where there is comment, it tends to appear as reports in outlets such as the weekly *Times Higher Education* rather than in the academic literature. Having served on three RAE education panels (1992, 1996 and 2001, the last of these as chair), my perceptions of the impact have developed from experiences of making and defending formal judgements of research quality and of engaging with the reactions of higher education staff to the assessments' processes and outcomes. In this paper, I look first at the introduction of the explicit, public and seemingly ever-changing system of judging research quality that has had a major influence on the culture of higher education in this country. This is followed by consideration of the impact the RAE has had on individual staff, institutions and research itself.

Although the main focus is on educational research in Scotland, much of the argument can relate to research in other disciplines and throughout the UK.

Judging research quality

One of the steadfast aims of the RAE has been to use a system that would be common, in process and form of outcome, across all the disciplines being assessed in UK institutions. While there will be some rethinking after 2008, until now the demand for commonality has ensured that the design of the RAEs has suited some subject areas better than others. Those of us in the social sciences have tended to construe this as advantageous for the physical sciences. There has been some leeway, however, in the interpretation of the criteria for research excellence through the use of peer review by subject panels for the assessments. Traditionally, the research community had been trusted to identify and operate such criteria and, despite disputes about philosophy and methodology, within disciplines there has been broad agreement about the principles of judging quality. Although the UK Research Councils now also consult *users* of research, the crucial first hurdle for a research proposal or report is still the *peer* judgment that it is “good” research.

Selection of the RAE education panel membership has taken account of recommendations from learned societies and others such as the General Teaching Council for Scotland and the Research Councils. This is not without difficulties: one problem in 2001 arose because the Scottish Educational Research Association, to avoid the internal sensitivities that they saw as inevitable in a relatively small community of scholars, declined to nominate anyone for the panel. Without some creative work behind the scenes, Scottish research might have lacked proper representation in the judgement process. Efforts were made to ensure a panel membership with a balance of geographical representation, gender, pre- and post-1992 universities, and those who had and had not served on earlier RAE panels. Because education is a wide field, it has not been possible to have specialists in all the relevant aspects of research. So, for example, although there have been members with research expertise in secondary education, coverage of all secondary subject areas could not be achieved. There have been, of course, experts on other panels or specialist consultants with whom the education panel could consult. The idea of involving eminent overseas judges in the process was introduced in 2001. This did not work well, partly because of the lack of access they had to the evidence and procedures of the panels, but for 2008 the international panel members have been more effectively helped to provide a strategic overview.

There have been a series of reforms in the RAE process over the years including changes in the rating scale with the intention of establishing finer distinctions in the judgments about research quality. An initial scale of levels 1 to 5, was adjusted to a 7-point scale (3a/3b split and addition of 5*). A shorthand for esteem could then be encapsulated in boasts that “we are a 5 (or 5*) department”. The different levels had descriptors that distinguished “national” and “international” levels of excellence and specified proportions of a submission’s research judged to be at these levels. The distinction between national and international was difficult enough, but for 2008 new star ratings were introduced with the aim of distinguishing among three levels of international excellence, assessing each strand of research evident in the submission and producing a profile rather than a single grade. Three matters are still relatively unclear: how the assumptions about the validity of judgements made with such increased fine tuning have been tested; how those judgements have been made in practice; and what are the actual distinctions between the levels. The only explicit illustration for an education level refers to indicators of the highest new star rating (4*) possibly including “new methods, new practices, new theoretical frameworks, new understandings”. Work at the other star levels has been based on the judgements of experienced panel members as being of lesser levels of excellence. Those judgments have focused on the originality, significance and rigour indicated by the output. What we can be sure of is that the advent of profiles rather than single grades is likely to make departmental boasting a more complicated business.

The impact of RAE on individuals

One of the challenges for UK universities' engagement with research in education faculties is that many of the staff are from successful and senior careers in teaching, but without research experience. This is especially true of Scotland where teacher education is a central feature of all the education faculties and that entails a need for staff to have had practical classroom experience in schools or colleges. If individuals have had any research experience or prior research training, then it is usually in their "subject area" (languages, science, mathematics, geography and so on) rather than in those social sciences that are more relevant to educational enquiry. Furthermore, because their previous occupations may have lasted a significant period of time, they can face a requirement for training in a new area that promises only a relatively short research career. There have been efforts in recent years, particularly through the Scottish Applied Educational Research Scheme (AERS, www.aers.org.uk) to increase research capacity, but the effectiveness of such efforts will take some time to become evident.

University staff members who have deserved or aspired to be returned as "research active" in their institutions' RAE submissions have often experienced new esteem for the work they do, but also profound pressure to publish with specified deadlines. The push for individuals to produce four quality research outputs between assessment exercises has ensured that numbers of publications and new journals have significantly increased. The effect of this is a mad rush for publication towards the end of the period, with well publicised stories of publishers, overwhelmed with book manuscripts, missing the December 2007 deadline and putting academics' careers at risk. However, other people, having already achieved four outputs for RAE 2008, have claimed to have slowed down their publications in order to include them in their list for the next assessment round. For those regarded as research active, in most disciplines the series of assessment results has indicated improvement over time in the quality of the research. And although cynics have drawn attention to possibilities of a reduction in panels' rating standards, from my experience on the education panel I am convinced of increasing quality in the work submitted.

For the considerable numbers of staff *not* returned as research active in universities' RAE submissions however, there has been a sense of being excluded, insulted (academically) and "branded" as research *inactive*. The charge has been made that their careers have been damaged, and there have been attempts for the 2008 exercise to establish mutual support or protest groups (see *Times Higher Education*, 7 August 2008: 4). In particular, women have felt discriminated against by institutional practices. There have been plenty of anecdotal accounts of institutions' lack of concern for family commitments and examples of male staff who wish to concentrate on research and so unload departmental administrative responsibilities on to female colleagues.

Universities, however, are extremely conscious of the status of their departments and of the very steep curve of financial support that the RAE's research selectivity has applied to the rating scale in Scotland and the UK generally. In consequence, they have tended more and more to include only researchers with high quality outputs of the kind that it is anticipated will be favoured by the panels. Furthermore, this has influenced significantly their recruitment and promotion practices. Poaching of eminent researchers and transfer of non-research duties to staff who are less active in research have been commonplace.

The impact of RAE on educational research in Scottish institutions

Until the 1990s, teacher education in Scotland had been in the hands of colleges and one university (Stirling). Research had been undertaken in the universities but, with the exception of Stirling, university departments had been small. Many of the college staff had little pre-merger research experience and research was not required in their contracts; they lacked the necessary skills and not

all were inspired to become researchers. Although most colleges made RAE submissions in the early exercises, and displayed a small amount of good research output, much of the material was judged to be poor. Frequently, there was evidence to suggest a failure to understand what would count as research, particularly excellent research, and too often “research output” was interpreted as *any* published material.

Concerns about future RAE performance encouraged the universities involved in mergers with colleges to set about dealing with long research “tails” through encouragement and support for staff development, recruitment of new staff with research expertise and promotion rewards for those with excellent outputs. This approach was relatively straightforward for those university departments that had a history of, and reputation for, high quality research, but it was difficult for those who did not. And it had a negative impact on some staff who saw themselves simply as teacher educators and were unconvinced that research would be of value to them in that role. Furthermore, there were disagreements at all levels about whether teaching and research should be seen as two distinctive professional routes, or even as a basis for classifying institutions.

The matter of university promotions, particularly to professorships, and their reliance on evidence of research excellence and ability to attract research funding rather than on excellence in teaching or administration, has been a continuing concern among many staff. Because good research has the potential to improve both status and funding, many institutions appear to value it more highly than teaching which, even when monitored and judged to be of very high quality, seems to have had much less impact. The RAE might be said to have had four effects on teaching. First, those institutions that have fared very well in the assessments have tended to encourage their “stars” to spend their time on leading edge research rather than teaching and administration: a strategy that fosters research rather than benefits students. Secondly, those that have received meagre rewards from RAE can afford to employ fewer staff who, therefore, have heavier teaching loads and must turn to methods such as more lecturing to larger numbers, none of which is seen as being to the students’ advantage. Thirdly, new staff members tend to be appointed for their proven research expertise rather than the appropriateness of their teaching specialisations. Fourthly, enthusiastic and excellent teachers feel unappreciated and concerned that they may never achieve a permanent appointment, let alone a professorship or a senior post in another institution. Even in institutions where a second promotion strand based on teaching leadership has been established, supposedly with parity of esteem, there is often a feeling of second-best in comparison with a research career.

One issue emerging from recent RAEs has been the apparent relationship in the UK between high ratings and education departments that could be seen as constituting centres of social science rather than of teacher education. This is not surprising given that teacher-education staff have previous experience that is often in school teaching rather than the development of research skills. In England, a small number of institutions have withdrawn from some teacher-education responsibilities to concentrate on social science research. This does not appear to have happened in Scotland. If things were to change in that way, the already limited base for Scottish research on teaching and teacher education could be endangered.

There is another facet to the relatively small size of the educational research community in Scotland. In an SFC consultation exercise on options for future RAE frameworks, the possibility of an exercise for Scotland that would be separate from the rest of the UK evoked significant scepticism. Researchers saw considerable potential limitations in the credibility of such an exercise, and significant difficulties in making the necessary valid judgements within such a small and fairly tight knit community of researchers were anticipated.

Increasing RAE emphasis on applied research

With the aim of assessing all forms of research on an equal basis, the RAE has recently put emphasis on the recognition of *applied* research and relationships between research and matters of public interest. For example, *research users* have been included alongside academic researchers in the 2001 and 2008 panels (UK Funding Bodies, 2005a). However, criticisms have come from outside the research community (e.g. Ternouth, 2005) about the low numbers of users, and from inside the community about the dangers of placing too much importance on the immediate economic benefits of research and diverting money from crucial research in areas that, in the longer term, lead to much greater understanding of the world and so impact on it. The problem of how ideas and research shape action is, of course, a perennial one and our understanding of the processes of transforming educational research findings into everyday knowledge needed by users remains limited (Taylor, 2002).

The emphasis on applied research has suited the field of education rather better than some others and since the mid-1990s much more emphasis has been placed on the importance of promoting greater understanding of practical matters through applied and practice-based research (Brown, 2005). Although there is still a lack of clarity about what this means, it challenges the separation of communities of research from those of practice (Furlong and Oancea, 2005). David Hargreaves (1996), for example, argued forcefully that if teaching were a research-based profession like medicine, it would be more effective and satisfying (the medical analogy generated significant dissent e.g. Hammersley, 1997). In principle, the change in emphasis has also moved towards including the kinds of research of particular interest to those teacher educators and teachers who are only now entering the world of research and rewards offered by research assessment.

In 2001, the RAE education panel members experienced considerable challenges in coping with the linkage between research and policy or practice *and* the need to maintain traditional criteria for quality research. Their judgements were based on originality, contribution to the advancement of knowledge, methodological strength, scholarly rigour and relevance for other researchers, policy makers and practitioners (UK Funding Councils, 1999: 301). Decisions about “international” excellence sought a range of evidence that displayed substantial knowledge of developments in theory and practice, significant empirical findings, conceptual contributions, innovative methodologies or techniques, theoretical developments or contributions to innovative developments in policy and practice (UK Funding Councils, 1999: 303). It was made clear that research output published in professional as well as academic outlets would be valued (UK Funding Councils, 1999: 304).

However, where material is published in ways most acceptable to teachers or policy makers it usually lacks the research detail necessary to identify it as quality work. So, submissions were asked to indicate the relationship of such material to the underlying research, explain how the quality of that research might be assessed and identify its field of enquiry, prime audience and educational significance. Not surprisingly, the additional demands on researchers, to demonstrate the quality of their practice-oriented research output, were a source of irritation. Given these efforts, the criticisms by Roberts (UK Funding Councils, 2003) of the 2001 RAE for not recognising the importance of knowledge transfer and collaborative research would seem harsh judgments to make about the education assessments.

For the 2008 RAE, the sub-panel for education argued in its criteria (UK Funding Councils, 2006, UOA: 45, paragraphs 19–29) that *all* types of output, including applied and practice based research, would be judged on the basis of the criteria of rigour, significance and originality. What was identified as counting as applied or practice based research was to be within

an area situated between the academia-led theoretical pursuits and research informed practice, and consisting of a multitude of models of research explicitly conducted in, with, and/or for practice. (Furlong & Oancea, 2005: 9)

In calling for extra information on research output, the sub-panel offered significantly more guidance than in 2001, but there remained a demanding task for researchers in making the case for their applied research in 2008 and for panel members in making their judgements.

Publications from the colleges of education in Scotland traditionally were directed more towards teachers and school administrators, and less towards researchers and policy makers, and there remain some questions about the research quality. A preliminary analysis (Oancea, 2004a, 2004b) of the submissions in 2001 suggested that such a focus was associated with lower ratings for their research quality and that

departments rated 3a and under potentially foster a research culture that favours considerations of use and strong links with the teaching profession. (Oancea, 2004b: 5)

Despite some face validity in this argument, the relatively small differences could be explained by higher-rated departments having more publications *of all kinds* to offer, and a belief that those published in academic journals and of interest to researchers would be more highly rated. However, there is still insufficient evidence to conclude that practice-based research is, in general, of a lesser quality than other forms of educational research. What can be said is that links between practical commentaries for teachers and the research from which those commentaries arise have been difficult to articulate.

RAE outcomes for Scottish educational research

Despite significant strengths in Scottish educational research, its institutions have had relatively poor performances in the education RAE. Despite the *average* grading of submissions being higher in Scotland than other parts of the UK, there were no top 5 or 5* grades in 2001, only one 5 (Stirling) in 1996 and proportions of staff designated as “active researchers” were disappointingly low. The need to increase research capacity in the field was obvious and led the then Scottish Executive Education Department (SEED) and the then Scottish Higher Education Funding Council (SHEFC) to establish a five year £2 million Applied Educational Research Scheme (AERS), supplemented by financial contributions from the lead institutions. The aim was to build a strong applied research base to help meet national priorities for education, foster expectations of higher levels of attainment for young people, promote inclusion and social equality, and generate new styles of management and professionalism in the context of lifelong learning. The research programme has been led by three universities experienced in research, but the scheme was intended to involve collaboratively all those in higher education with an interest in educational research together with practitioners and policy makers.

This has been a very ambitious plan and it will be some years before its success can be judged. Nevertheless, the efforts of the RAE to encourage practice-based research and collaborative activity are clearly reflected in the AERS programme, and already it has taken forward developments that have introduced some newcomers to the research publication world (see Munn, 2007). Its distinctive plans for wider development of research expertise and overall research capacity across Scotland, however, have been somewhat slower to take hold although it is reported that there has been an increase in the number of Scottish educational researchers returned in the submissions for RAE 2008.

Research assessment after 2008

Whatever the value of peer review, it has weaknesses and critics and is an expensive and time consuming process. A new approach was announced in December 2006 (HEFCE, 2006) indicating that assessments of science and technology research after RAE 2008 would be undertaken using

metric values such as research income, postgraduate numbers and citations. The arts, humanities and social sciences, would be assessed by a combination of metrics and “light touch” peer review. In response to this many, notably the British Academy (2007), argued for a system firmly based on peer review, but providing better training, recognition and rewards for those who would undertake the assessments.

The dangers, particularly for the humanities and most social sciences, of reliance on metric measures such as numbers of citations or grants, or on assumptions that excellent research output is what is found in a short list of eminent journals, have been of major concern. Fields such as education where there is a broad range of journals (often specialised) rather than an eminent short list, or where research achievement is judged by monographs or books produced over extended periods, have been seen as ill-served by a metric system no matter how much its simplicity appeals to governments. Albert Weale, who chaired the British Academy panel, was reported in the *Times Higher Education* (7 September, 2007) as commenting, “The concern, as we all know, is that the urgent tends to drive out the invisible”; and Geoff Whitty, a former President of the British Educational Research Association (BERA), remarked how much more attached to the familiar peer review system people have become now that metrics threaten. Even some natural scientists have warned against citation “fishing and bartering” that may promote the work of less than excellent researchers, and have expressed fears that scientific diversity will be reduced. Anxiety has been exacerbated by reports of poor reliability for some citation indices making the government’s policy for the future look “dodgy”, by severe difficulties in the actual use of citations and by profound disagreements on the basis and value of lists that rank academic journals.

Following a consultation exercise, the UK government announced on 24 April 2008 that the new Research Excellence Framework (REF) to replace the RAE after 2008 would *not* after all include the clear distinction previously identified between the arrangements for science-based subjects and other subjects. Assessment in all subjects

will include some combination of metrics-based indicators, including bibliometrics where appropriate, as well as input from expert panels (www.hefce.ac.uk/research/ref)

Furthermore, there is underway a pilot exercise lasting until spring 2009 to inform the developments that are planned to be fully in place by 2014 and that will drive research funding for all disciplines. This has shifted the emphasis and time scale, but not silenced the critics.

Whether the SFC or Scottish government will decide that Scotland will have a *separate* system of assessment in the future is still an open question. Although the university and college lecturers’ union appears to favour separation, few serious academics have openly supported that idea. However, the Scottish government has been consulting about the future and the funding of the sector with the SFC and Universities Scotland (representing the Scottish university principals) through a body called the Joint Future Thinking Taskforce (www.scotland.gov.uk/Topics/Education/UniversitiesColleges/16640/hetaskforce).

A final report from this body is about to be released. It confirms that the universities will spend more than 10% of their funding on targeted innovations in direct support of the government’s economic priorities. There are vague gestures towards increased funding and “lighter touch” regulations from the funding council. While some aspects of such plans could be welcomed, there have been significant concerns expressed by academics and others (e.g. see *Times Higher Education*, 9 October 2008: 16; the *Herald* 18 and 19 November 2008) about the credibility of the funding promises and potential threats to academic freedom, especially in relation to research analyses that might be critical of government. There continues to be support for a “buffer body”, such as the SFC, between institutions and government and worries about alternative scenarios where academe would be directly accountable to ministers. The ways in which these issues are resolved could well have implications for moves towards a distinctly Scottish rather than a UK assessment of research.

In conclusion

It seems that careers, institutional futures, the practices of higher education and personal esteem have all been fundamentally influenced by the assessment of research performance. There is little doubt that this aspect of universities' responsibilities is regarded as being of ever greater importance, in both status and financial terms, and that those staff who previously chose to avoid engagement in research or development of their research skills have had to think again. But there have been casualties and plenty of metaphorical blood on the carpet.

On the positive side, high quality intellectual enquiry and knowledge application are now more deeply valued, and there is evidence of increased quantity and quality of research. There is greater understanding of what counts as excellent work and the hope that this will lead to an appreciation of the impact that such research can have on the quality of teaching. All this adds to researchers' confidence that their endeavours will promote both their own careers and their institutions' prosperity. In particular, the new emphasis on applied research has benefited many in education faculties and led to a newly funded programme in Scotland to foster practice-based research and research capacity building.

On the negative side, there is resentment of the time and other resources that RAE submissions and judgement processes require. The personal hurt of being regarded as research inactive, and the institutional disappointments from low ratings, are frequently profound. Research selectivity's impact on teaching, and the failure to address in detail the relationships between research and teaching, have led to divisions within and between institutions and possibly to poorer teaching quality.

The RAE has acquired extraordinary prominence in academics' thinking. However, it is rare for anyone outside that community to have any idea of what the fuss is all about. Given the early controversy about the nature of the future plans for the REF to replace the RAE, it may be that in terms of "fuss" the best is yet to come.

References

- British Academy. (2007). *Peer Review: The challenges for the humanities and social sciences*. A report September 2007. Retrieved September 28, 2007, from www.britac.ac.uk
- Brown, S. (2005). How can Research Inform Ideas of Good Practice in Teaching? The contribution of some official initiatives in the UK. *Cambridge Journal of Education*, 35(3), 303–405.
- Furlong, J., & Oancea, A. (2005). Assessing Quality in Applied and Practice-Based Educational Research. Retrieved September 28, 2007, from www.esrc.ac.uk
- Hammersley, M. (1997). Educational Research and Teaching: A response to David Hargreaves' TTA lecture. *British Educational Research Journal*, 23(2), 141–161.
- Hargreaves, D. (1996). *Teaching as a Research-Based Profession: Possibilities and prospects*. Teacher Training Agency Annual Lecture. London: Teacher Training Agency.
- HEFCE. (2006). Response to Consultation on Successor to Research Assessment Exercise. HEFCE: news 6 December 2006. Retrieved September 28, 2007, from www.hefce.ac.uk
- Munn, P. (Ed.). (2007). Special issue on the early work of the Applied Educational Research Scheme. *Scottish Educational Review*, 39(1).
- Oancea, A. (2004a). The Distribution of Educational Research Expertise: Findings from the analysis of RAE 2001 submissions. Part I. *Research Intelligence*, 87, 3–8.
- Oancea, A. (2004b). The Distribution of Educational Research Expertise: Findings from the analysis of RAE 2001 submissions. Part II. *Research Intelligence*, 88, 3–9.
- Taylor, C. (2002). The RCBN Consultation Exercise: Stakeholder report. *Occasional Paper Series, Paper 50*. ESRC Research Capacity Building Network, Cardiff University.
- Ternouth, P. (2005, Friday, May 27). Practice Makes Perfect Sense. *Times Higher Education*, p. 18.
- UK Funding Councils. (1999). *Research Assessment Exercise 2001: Assessment panels' criteria and working methods*, Ref RAE 5/99. Retrieved September 28, 2007, from www.hefc.ac.uk

UK Funding Councils. (2003). *Review of Research Assessment*. Report by Sir Gareth Roberts. Retrieved September 28, 2007, from www.hefc.ac.uk/pubs/

UK Funding Councils (2006). *RAE 2008 Panel Criteria and Working Methods: Panel K sub-panel Education*, Ref RAE 01/2006 (K). Retrieved September 28, 2007, from www.rae.ac.uk

Watson, D. (2007, Friday, July 27). Individual Battles will Sink our Ship. *Times Higher Education*, p. 14.