

Sub-Panel 45 Education Subject overview report

Overall quality: The quality of the research activity reported in the submissions was high and significantly improved from 2001. Across the Unit of Assessment (UOA), about 75% of the activity was judged as being of international standard (2* and above), over 40% internationally excellent or better (3* and above), and about 15%, world class (4*). Just under a quarter (18 of the 81) submissions had a quality profile in which 50% or more was at internationally excellent or world leading levels. A very large proportion of submissions (over 70%) had some world leading element in the profile.

It is clear that our best departments can compete on equal terms with the strongest departments anywhere in the world: five departments had a quarter or more of their activity judged as world leading. The high international standing of education in UK universities was strongly endorsed by the international members of the main panel.

Size of the Field: Education remains a major research field in UK universities. There were 81 submissions representing 82 institutions (83 submissions in 2001, also representing 82 institutions). 1903 research active staff were returned, of whom 1837 were Category A staff and 66 Category C. The Category A FTE equivalent was 1696.07 (more than 15% down from 2001). There were 7146 outputs submitted (nearly 20% down from 2001). However the 2001 data are not strictly comparable since many universities appeared to have been more selective in their entry in 2008.

The number of Category A staff entered varied from 1 to 254, with a median of 13. There were many small entries: 30% of submissions listed fewer than 10 Category A staff, and almost 70% fewer than 20. In some cases small entries represented a cohesive research group set in a large education department with most staff not entered; in other cases they represented a diverse group of staff distributed in different locations within an institution. There is a strong positive correlation between size and quality profile, but the relationship is complex and non-linear: some smaller submissions had strong profiles supported by strong outputs.

While submissions were received from the same number of institutions as in 2001, there were some changes in the institutions submitting; only 64 of the 82 submitted on both occasions. Most of the changes occurred among institutions with small entries, but three institutions which entered more than 20 FTE research active staff in 2001 did not make a submission to this sub-panel in 2008.

Eight submissions came from Scotland with a total of 267 Cat A staff (mean entry 34); 6 from Wales, with 41 Cat A staff (mean entry 7); 3 from Northern Ireland, with 39 Cat A staff (mean entry 13); 64 from England, with 1489 Cat A staff (mean entry 23). This represents a significant expansion in Scotland since 2001, little change in Northern Ireland but a decrease in Wales, even after excluding the largest Welsh 2001 submission since in 2008 the staff were submitted to another sub-panel. These differences have implications for research capacity and funding, especially in the light of a low average quality profile for Welsh institutions.

Scope and Change The areas of educational research identified mainly from research group titles included:

- pre-school & primary; adult/lifelong/further/vocational; higher education; health/medical;
- psychology/learning/affect; assessment; special needs/school inclusion;

- curriculum; curriculum subjects (arts & creative/citizenship/humanities/ICT/ languages/RE/STEM/ PE & wellbeing);
- pedagogy/classroom interaction; communication/language/ literacy/media; ICT use;
- professional development;
- leadership/ management; improvement/ effectiveness;
- philosophy; history of education; sociology of education;
- comparative/international; policy;
- social justice/social inclusion; cultural/critical theory;
- methodology.

It was clear that there were substantive changes since 2001, including a general broadening of the field. Greater focus on applied work may have been driven by increased investment of RDA and other government funding.

Educational research has also expanded into community and domestic arenas, reflecting a policy-led emphasis on integrated children's service provision. National and transnational policy changes have also stimulated more work in both citizenship and globalisation.

There was also an expansion in higher education research: policy-focused, management-focused and pedagogic. Applied linguistics/language education also represented a major strand in many submissions.

There were some developments in applied research: for example, class size; analyses of the value of ICT in teaching; multimodal analyses of classroom interaction; critical approaches to school improvement; and diversity in leadership.

There was some expansion in the psychological field. Some of this was application of standard ideas and techniques to educational settings, but there were a few examples of new directions, such as creative collaborations with cognitive neuroscientists.

New perspectives on established fields were brought by theoretical resources such as postmodernist theory, socio-cultural and activity theory and psychotherapeutic theory.

Some more traditional areas were less strongly represented than previously e.g. leadership and management, teacher education, international/comparative education. There were also fewer outputs in health/nursing/medical education than previously, but these may have been submitted to other sub-panels. Other fields continued to be under-represented in relation to their key importance to national education systems e.g. assessment (at all levels), classroom learning and effective teaching in subject disciplines, middle management in schools, further and adult education generally, creative/expressive aspects of learning; pastoral care; human rights, legal contexts and developments, and the economics of education. Some of these omissions may reflect patterns of available expertise in education departments.

In terms of methodology, there was some evidence that weaknesses noted in 2001 have started to be addressed. There was more, and more sophisticated, quantitative analysis, and an increase in longitudinal studies, as a result of increased investment and capacity building in particular centres. Nevertheless more longitudinal data-sets are needed, for example to provide sound evidence of long-term effects of different factors and innovations on educational outcomes. It would have been good to see more secondary use of the datasets which do exist, both qualitative and quantitative; although there may be questions about their usability in certain cases. There was also an increase in evidence-based systematic reviews.

Overall, education is essentially a multidisciplinary and interdisciplinary field; engaging critically with the social sciences and humanities. One result of interdisciplinarity was publication in a wide range of journals and other outputs.

Output Quality It is the view of the sub-panel that the quality of outputs has improved substantially since 2001, and that this should be widely celebrated. About 80% of the outputs were assessed to be at international standard (2* and above), with over 40% being judged as internationally excellent or better (3* and above), and 11% as world leading (4*). At most 3% of outputs submitted were judged to be below national level. It is clear from evidence about research environment that some HEIs have invested significantly in developing research capacity and managing the improvement of research quality, and this seems to have had clear results.

Within this general trend, there was still a wide range of quality. While there was world leading research in most subfields, at the lower end there was insufficient building upon other work, including testing hypotheses/research questions in new contexts. The contrast between the innovative and the pedestrian was especially acute in research in HE, assessment, early years, adult education, and in subject-discipline focused work, including ICT.

Small scale work sometimes reflected inward referencing sub-communities with insufficient awareness of the generic mainstream or of relevant international developments. There was some evidence of an increase in internationally networked research but, in most disciplinary areas, there was a relatively small proportion of work published in North-American journals.

While the best research employing qualitative methods was world leading there was evidence of weaker work in some areas. Much of the relatively small amount of quantitative work was of very high quality, especially that dealing with the analysis and interpretation of large datasets. Weaknesses were mainly restricted to one-off surveys.

There was original and high quality theoretical, scholarly and critical work in philosophy, sociology and history of education. This was not all related directly to immediate policy priorities or practical concerns but often offered challenging new agendas. It is important to the field as a whole that resources and opportunities continue to be available to enable such cutting edge contributions to thrive as well as to encourage greater interplay between these and other research traditions. There was also a large and strong set of outputs in the fields related to language and linguistics.

The quality of the best government-sponsored and targeted research was excellent, both rigorous and effective in informing policy, with enough funding to sustain large multi-disciplinary teams over many years. However other areas suffered in quality through being too closely tied to shifting government and government agency priorities, tight timescales, a focus on description rather than analysis, and limited theorisation. This loosened the links with social science and sometimes involved over-simplistic assumptions about teaching and learning.

A move was noted from book to journal publishing; the trend may be perceived as encouraged by RAE requirements. It also meant that it was difficult for large scale and complex research projects, qualitative and/or quantitative, to be reported holistically. The result was sometimes the writing up of research in an unsystematic and often repetitive series of journal articles, each drawing on a single aspect of a wider project.

Nevertheless there was much work at the leading edge. This outstanding quality was evident in all fields but to varying extents. Some world leading and internationally recognised work was noted from early career researchers. Some excellent contributions

also came from retired researchers submitted as Category C staff, who perhaps felt less constrained by pressures of time and/or orthodoxy.

Environment Quality: There was an overall improvement in all aspects of research environment for most institutions submitted in 2001. Of the 81 submissions, 5 were now judged to have a world leading environment in the sense that 50% or more of their environment profile was assessed as 4*. A further 15 submissions had 50% or more at internationally excellent level, each with some world leading elements, and yet another 15 were judged to be at internationally recognised standard, the majority with world leading elements. The majority of the remainder, 35 institutions, were judged to provide a national level environment, almost all with internationally recognised elements. Just 11 institutions, of which 9 were new entrants in 2008 and all had small entries, were not yet judged to have reached national standard.

The reason for the significant improvement in some departments was generally institutional investment, in strong additional chair appointments, in staff development and capacity building, in funded studentships and post-doctoral fellowships, and in encouragement of a genuine passion for enquiry. New research centres also added strength. The best submissions had effective leadership, sound but flexible research structures, coherent research groups, operational quality audits, internal peer review processes, and evidence of unambiguous and measurable targets having already been achieved over the period and with future targets being specific, ambitious and realistic. There were significant improvements in some departments in post-1992 HEIs, with a few being amongst the best submissions in the Unit of Assessment.

A small number of departments had declined significantly, often as a result of key research leaders having left. There were indications UK-wide of a high level of mobility around the sector among senior staff. In some departments there was positive evidence of reconstruction which had not yet borne fruit in terms of high quality outputs.

In smaller departments there is an issue of achieving critical research mass, both overall and in building up clusters of researchers in specific fields. Some quite small entries were successful in creating one or two such clusters.

Research Funding: External research income for the field as a whole was strong with a total over the assessment period of £316,212,274. The median research income for each research active staff FTE was over £101k for the assessment period, roughly doubling. There was a wider range of funding sources than previously. For example for the first time a few institutions received significant RDA funding (£1.4m in total). Government (including government agencies) was the largest funder of educational research (£182m), but Research Councils (£55m) and UK based charities (£37m) were also significant funders, with the EU a smaller contributor (£18m). The espousal of evidence-informed policy and practice may have been a factor in the increased share from government.

Targeted funding from DCSF (dedicated research centres), ESRC (through the TLRP), Scottish Government/Scottish Funding Council (Applied Education Research Scheme) and the TDA, made a considerable impact in the period. However many departments, some with world leading outputs, have received little or no large-scale funding.

Very little funding originated from outside the European Higher Education Area.

Research Capacity: There was evidence of significant attention being paid to capacity development. Postdoctoral fellowships, from the ESRC and other sources, have had some impact. Submissions indicated a good level of support for staff and especially for early career researchers.

At a national level the development of research capacity has been strongly supported by the TLRP networks, by the ESRC more generally, and in Scotland by AERS. Clear evidence of success is demonstrated, for example by rising numbers in quantitative research, spread among more centres. Nevertheless there is still a shortage of researchers with quantitative expertise. More staff development is also needed to improve research rigour for the relatively high proportion in education departments of staff without doctorates.

There is more evidence of global recruitment than previously. This is true of leading researchers (in some cases only on a part-time basis which may raise questions of sustainability) and among new researchers, some of whom first came to the UK for doctoral study.

Some departments had acquired funding for successful initiatives to tackle the problem of attracting practitioners into acquiring the research skills and experience needed for academic careers in education, but these need to be expanded significantly to have sufficient national impact.

Research students: Research student numbers are very healthy overall and have increased during the assessment period, with almost 3000 students currently enrolled, a mean of 1.75 per Category A staff FTE. However the average annual number of research students over the period had decreased by about 7% since the 2001 RAE period.

Of about 7000 new students during the period, less than 4% were funded by OST/Research Council studentships, 10% were funded by other external UK sources, 8% by overseas sources, over 16% by the HEIs. The remaining group (over 60%) were funded from other sources (in almost all cases this is likely to mean self-funded). Overseas students are often obliged to fund themselves, and many teachers and others continue to fund their own doctoral study.

Given the significance of research council studentships for ensuring the long term future of the discipline, the 4% figure is strikingly low.

Doctoral awards have also increased steadily during the period, with a total of over 3100, a mean of over 440 per year, a very small increase on the mean per year in 2001. Doctoral awards per student varied significantly even between institutions with similar student numbers.

Most departments provided research training, though for many smaller submissions it is not specific to education. The best departments provide excellent training and integrate students within research groups and funded projects. 32 of the 81 departments now have some ESRC recognition in education, not all with full 1+3 recognition, and a few others have joint recognition with cognate disciplines. There would appear to be considerable scope for regional collaboration on doctoral research training which would strengthen training in departments without ESRC recognition and would also help those units that have only a small number of students. BERA and the ESRC, and other associations of researchers, are reported as having provided valuable research training and networking at national and sometimes international level.

Esteem There were some impressive esteem indicators with the top researchers in the UK having clear evidence of global recognition, including several international prizes and awards.

In addition to substantial academic service of a normal kind, there was a rich array of other research-focused service to support local, national and international education systems, working with policymakers, practitioners, parents and students.

Conduct of the Assessment: The sub-panel conducted the exercise in line with the intentions set out in the 'Panel criteria and working method' document. More than 99.5% of the 7146 outputs were examined in detail. 246 outputs were cross-referred out to 12 other sub-panels and 2 specialist advisers were appointed, in quantitative methods and in critical psychology. An additional 110 outputs (all cross-referred in from a total of 9 other sub-panels) were examined by sub-panel members.

The sub-panel believes that a detailed peer review based on reading outputs was an essential part of the assessment process and was crucial in helping to arrive at fair judgements of research quality.

At the start of the exercise, several moderation activities were used to attain initial agreement of standards across all the sub-panel members, in assessment of outputs and in assessment of environment and esteem. Each sub-panel member then assessed outputs mainly within their own areas of expertise. Some outputs assigned to each sub-panel member were second-read and discussed on two occasions, and results for each sub-panel member were monitored with feedback and revised where necessary; further second-reading took place in some cases. This way of allocating outputs meant that many members of the sub-panel contributed to the output results for each submission; even in the smallest entries we ensured there were three or more contributing readers.

Some profiles were adjusted where the case was not considered to have been satisfactorily made explaining why Category A staff had less than 4 outputs.

A leader was assigned to each submission for the assessment of environment and esteem and assisted by an initial group of readers presented a provisional profile. The full sub-panel reviewed each esteem and environment profile through four iterations. Some of the discussions were informed by prior work by sub-panel members who had directed their attention towards specific groups of submissions.

The international expert in education on main panel K provided valuable advice and assistance in moderating results throughout the process. The advice and monitoring feedback from main panel K helped to ensure that results were broadly in line with those for comparable disciplines.

The sub-panel members are confident that they have done everything possible within the constraints of the exercise to provide a fair assessment of all elements of the profiles.

Annex 1 Research Assessment Exercise 2008

Report from User Members of the Education Sub-Panel (UOA 45)

This report presents an overview of some key issues arising from RAE 2008 as the user members of the sub-panel see them. The user members had a range of experience of, and perspectives on, the application, use and influence of research resulting from their involvement in the different phases and sectors of the UK education system. The members were:

- Marilyn Leask, Professor of Education, Brunel University; previously Head of Effective Practices and Dissemination of Research, Training and Development Agency for Schools, and Head of Knowledge and Learning at the Improvement and Development Agency for local government
- Paul Ramsden, Chief Executive, Higher Education Academy
- Lesley Saunders, Senior Policy Adviser for Research, General Teaching Council for England
- Diana Wilkinson, Chief Researcher, the Scottish Government

1. INTRODUCTION AND CONTEXT

The Education sub-panel, in common with other (though not all) RAE sub-Panels in 2008, was constituted with a small group of user members – initially six, of whom two resigned, for reasons not connected with the RAE, before the process of assessment and grading started. (The 2001 Education Panel also had four user members.)

The involvement of user members is important because it affirms the principle that educational research/research in education is to be seen as an applied disciplinary field, with the capacity and responsibility to influence decisions made in education, from national/strategic to professional/pedagogic.

The user members were welcomed, and participated, as full members of the sub-panel and were fully involved in all the sub-panel meetings, helping to set the criteria and undertaking the assessment and grading (though we were not tasked with the same amount of reading as the academic members nor with leading on assessing submissions). As none of us had served on the 2001 RAE, this degree of involvement was helpful in acquiring an understanding of the process.

We all found it of direct value to our posts in policy organisations that we became aware of the range and high quality of specialist research centres, research partnerships, individual research studies, etc. We were also glad to have direct evidence of the range of strategies for engagement with users that the field has developed. This intelligence will inform our organisations' work in future.

2. KEY MESSAGES

2.1 Funding

Monies awarded to education research by RDA and other government bodies over the assessment period totalled £180,000,000 and if EU government bodies' monies are included this rises to £200,000,000 (source: UOA 45 standard analyses), indicating that direct government funding represents approximately 60% of external investment in education research. Questions this raises for the field are whether and how far the balance between Research Council and direct government funding has changed since

the last RAE; and what effect that balance may have had on the type and focus of research done.

User members found that their assessment of funding as an indicator of institutional (and indeed overall) research environment was somewhat hindered by the way in which government funding data was presented in only two categories, as 'regional development agency funding' and 'other government bodies in the UK'. It would be helpful if these two categories could be further disaggregated, not least because we contend that some government agencies award research funding on the basis of rigorous commissioning procedures – including peer review – which could arguably put such funding on a level with Research Council awards. (We recognise that the *purposes* of research activity funded by government agencies are often very different from that funded by research councils.)

2.2 The policy and professional practice audiences

Much of that government investment has explicitly been directed towards attempting to secure a stronger evidence base for decision-making in policy and practice, with a concomitant investment in research access and dissemination activities. We also know that the Teaching and Learning Research Programme (TLRP) and Applied Educational Research Scheme (AERS) have supported and funded a wide variety of research-based activities and outputs for different user audiences, but we noticed that only a small proportion of these outputs (and those arising out of the plentiful research funded by government) seem to have been submitted to this RAE. We accordingly wonder whether clear signals about the relationship between quality in research as measured by RAE and the greater UK investment in research-for-use have yet to be given. At this stage, it appears that the risk institutions perceive of submitting research-based user-focused outputs has led to limited submission of this work. As the Panel took pains to set out the criteria in such a way as to encourage submission of this work (see p.31, paragraph 19 of the RAE panel criteria for UOA45), we think it is a very important issue to pursue.

Secondly, in terms of quality of research reporting, we read outputs in which sophisticated and complex ideas and data were vividly and eloquently communicated by their authors, whilst in others valuable material was expressed in an unnecessarily arcane and convoluted way.

Thirdly, user audiences tend to be impressed by work that consciously builds on what has been done before – the systematic review and research synthesis being prime examples of cumulative work (though we recognise the limitations of these too). We were therefore concerned when, as sometimes happened, we read papers that made insufficient reference to recent and relevant studies in the same field, and that therefore missed important opportunities for helping to create coherent bodies of knowledge. This is done not only by building on and adding to, but also by replicating and challenging, or by offering alternative explanations of, existing data – and this we would welcome more of.

Fourthly – given that many researchers in education come to research from a teaching career or an academic career outside the discipline of education, we think that it might be advisable in any future exercise to make an even clearer distinction between pedagogical research in higher education and descriptive or anecdotal accounts of teaching developments and evaluations (see advice on p. 14 paragraph 58 RAE 2008 Panel Criteria for Main Panel K.) Several outputs fell into the latter category: they were often very interesting and worthwhile in their own right (and would probably have a strong appeal for practitioner readers), but did not meet the definition of research for the RAE or made only a limited contribution to their area.

Finally, user communities have a strong interest in multi- and cross-disciplinary research which is best placed to address complex policy and practice challenges. For example, after the 2001 RAE the Scottish Government and the Scottish Funding Council invested in AERS with the explicit aim of building capacity with an ethos of collaborative cross-disciplinary working and user engagement. We expect more activity and outputs to emerge over the coming years from this investment.

2.3 Significance and influence

Of course, outputs were not the only means of assessing institutions' efforts to engage with and influence policy and practice communities: a range of different forms of engagement with users was cited in the submissions, such as:

- knowledge transfer/brokerage
- direct work with schools and practitioners
- membership of advisory/strategic bodies
- professional doctorate programmes
- production of high quality text books.

Submissions often gave compelling accounts of their centres of excellence and expertise, and of their partnerships, activities and events to promote the dialogue between 'producers' and 'users' of research knowledge. In part this is a recognition that the most effective dissemination is often not – or not mainly – through discursively written materials. We note that the type of information presented in the submissions is not always readily available on institutional websites. Yet this is just the kind of intelligence that would be very useful to commissioners of research amongst others as part of a knowledge transfer agenda.

We noted that there was relatively little by way of school-based subject-specific research, which must be a matter of concern to policy-makers, practitioners and academics alike.

We would like to take this opportunity to say that as users we often need and value ideas and theories as much as data and evidence; sometimes it is a new and cogent way of conceptualising a problem, of discarding guiding assumptions, that is needed, at others it is an explanatory underpinning theory, at yet others it is the different perspective offered by combining disciplinary and/or methodological approaches. These can be as influential on policy as analyses of large/longitudinal datasets are assumed to be. (Occasionally it is research that on the surface is not at all 'applied' that offers a breakthrough.) There were examples of ground-breaking conceptual work, though in some of the outputs where claims were made for 'policy relevance' the research was untheorised and descriptive.

So we would like to lend our weight to the arguments in favour of the broad range, substantively and methodologically, of education research that has been sustained in this RAE.

2.4 *Looking ahead, capacity-building and sustainability*

Users must be as concerned as producers with the future health of educational research as a field, especially given the demographic profile of educational researchers in the UK. In reading the submissions we found it hard to get a sense of what data (as distinct from statements of intent) could be used to assess capacity-building and sustainability; we think that there could be more useful indicators for capacity building – for example, global recruitment, opportunities for research training for established staff – beyond descriptions of provision for early career researchers in RA5.

3. CONCLUDING THOUGHTS

We have been deeply impressed by the sub-panel members' integrity, conscientiousness and attention to detail, and by the probity of process in the conduct of the sub-panel's deliberations. We are convinced of the rigour of process and outcomes. We are also, therefore, convinced of the continuing need for some form of peer review and the exercise of informed professional judgement in assessing research quality, both in matters of principle as well as in the interpretation of metrical data and of individual submissions and outputs

The evidence from this RAE is that the overall quality of research activity in education in the UK is high, and the best research is world leading. This is a very encouraging and positive message which we will take back to our own organisations and the communities with which we work.