

What Impact will the Research Quality Framework have on Knowledge Production and Diffusion in Australia's New Generation Universities?

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Abstract: The current research funding model for Australian universities is based on performance (Kemp 1999). In 2005, the Commonwealth government proposed a new model based on research quality ranking, to increase the accountability and accessibility of publicly funded research. The proposed Research Quality Framework will, for the first time, take into consideration the impact as well as the quantity and quality of research. Many academics and smaller universities are concerned that they might be disadvantaged. This paper looks at how the new model is likely to impact knowledge production and transfer in Australia's New Generation Universities, especially with regards to business research.

Keywords: Research Quality Framework, Research Funding for Universities, Knowledge Production, Knowledge Transfer, Business Research

Introduction

THE GLOBAL RANKING of universities as measured by research performance in the form of publication, citation and Nobel Prize winners, shows that while Australia has 14 universities in the top 500, only two are in the top 100 (Shanghai Jiao Tong University 2004). Hence it is natural for the Australian government to be concerned with improving the global standing of the country's universities. For strong research universities are crucial to the knowledge economy.

The current research funding model for Australian universities is based on performance (Kemp 1999). In 2005, the Commonwealth government proposed a new model, based on research quality ranking, to commence in 2007. The rationale for the new model, called the Research Quality Framework (RQF), was to establish greater transparency of the quality of research arising from public investment and to improve the accessibility of this research (EAG 2005, p.5).

Under the proposed new framework:

- assessments will not be made of individuals but of discipline area, faculty or institution;
- institutions can decide which research groupings are to be assessed;
- the assessment panels of 12 to 15 members will include a majority of peer reviewers and end-user reviewers;
- at least 50 per cent of the reviewers will be from overseas;

- funding will be in block grants to be distributed internally by individual universities;
- there will be a five-point quality rating scale;
- a three-point impact rating scale;
- a five-point aggregated rating scale of impact and quality; and
- each RQF assessment cycle will take about six years (O'Keefe & Illing 2005).

However, while the RQF may be the cheapest and quickest way to build a layer of stronger research universities, it comes at the expense of the rest. For while Australia's total investment in tertiary education is above the OECD average its public investment is below the OECD average, at a time when all over the world government carries the main cost of research (Marginson 2006). Hence the New Generation Universities – 10 institutions created in the 1980s and '90s, including Southern Cross University (SCU) where the authors of this paper work – have several concerns over the proposed new model, ranging from increased red tape and costs to unhealthy competition and job losses.

Whose Quality?

The key issue will be how the quality of research is assessed. The Expert Advisory Group for an RQF has recommended that international experts be included on RQF assessment panels (EAG 2005, p. 19). However, some ask why Australia needs to follow British and US patterns since on international indicators it is quite different (Poole 2005). It is ar-



gued that research in areas such as solar energy, salinity, social harmony and education are crucial to Australia's future and require major support, whatever their international levels of excellence as revealed by the RQF exercise. In Britain, the Research Assessment Exercise (RAE) panels are supposed to assess the quality of the content of each research article, but there is a perception that the place of publication plays an important role (Clarke 2005).

Another important issue is whether the panels will be able to actually read every paper submitted for evaluation (Steele 2006). Besides, how you decide on the journals that are to be used fundamentally affects the outcomes; so if American journals are used, you skew the outcomes away from Australian topics (Aitkin 2005). Thus issues of specific concern to Australia may not be researched, or the findings may be generalised to the point where they become useless other than as a publication exercise.

One way of assessing research quality in some disciplines is the citation index, which records the 'impact factor', or how many people have referred to a published paper. Yet scholars have warned against the 'fatal attraction' for bibliometric methods as a tool for ranking universities on their research performance (van Raan 2005).

Like nuclear energy, the [journal] impact factor is a mixed blessing (Garfield 2005).

Davies et al. (2005) hold that the journal impact factor is a false measure of quality, since many citations point out biases, poor methodology or faulty logic. Yet each such critique enhances the perceived 'quality' of the researcher. They give the example of a 1988 paper in the prestigious journal *Nature*, which has been cited 407 times but mostly in rebuttals.

Moreover, the system can be manipulated and, in order to seek maximum citations, editors have changed editorial practices, including accelerating the editorial review process, encouraging authors to cite articles from the same journal, publishing theme-based issues and more review articles (Steele 2006).

Impact on Teaching

The RQF largely ignores the links between research and teaching (CAPA 2005). For regional universities, such as SCU, appointing new academics generally involves a major upheaval for them and their families. Hence, if they were unable to pursue their research interests they would refuse the offer. This impacts as much on the undergraduate students that the academic would have taught as it does on the university's research performance (SCU 2005a). Furthermore, research performance is, paradoxically, more salient for undergraduate student recruitment

than teaching performance (Duckett 2005). Staff also fear that academics whose research activity does not measure up to the new requirements could find themselves pigeonholed as teaching-only.

Besides, regional universities usually have in their founding Acts the requirement to 'serve the region'. Thus they face the challenge of doing world-class research as well as research that serves their region (SCU 2005b). And they have, in fact, produced some outstanding research in areas that affect the lives of most Australians, such as education, literacy, nursing and palliative care, health and wellness, creative arts, sports science and social work (Poole 2005). Therefore, the RQF must have the flexibility to allow universities to measure their performance in relation to their missions (SCU 2005b).

The National Tertiary Education Union is concerned that allowing universities to select staff for inclusion in the RQF has the potential to exclude staff from their industrial and professional rights to undertake teaching *and* research. It is of the view that all staff who wish to take part should be included in the RQF (Nette 2006).

Piggypacking and Poaching

The smaller universities fear that the new model could result in 'strategic piggybacking', with mediocre academics in highly ranked universities getting a free ride at the expense of top researchers in lower ranked universities (Gangopadhyay & Gangopadhyay 2005, p. 114).

The small universities also believe that larger institutions with deep pockets will end up poaching their good researchers (Aitkin 2005). The RAE led to the creation of a transfer market in the UK academia, like the one in football, in which institutions bought active researchers (Elton 2000). The same trend can be seen starting in Australia, with the sandstone institutions recently advertising large numbers of research appointments. However,

... while teams move up and down in the league table as a result, and the winning managers may celebrate in the media, the overall quality of national play is not improved. Indeed it may well be diminished if the teams are disrupted (Davies et al. 2005, p. 3).

Others are concerned that researchers from highly ranked research groups may decide not to collaborate with colleagues from lower-ranked groups, because this may risk the success of their grant applications (Barlow 2005a). The new requirements could also increase the divide between academics and practitioners.

Knowledge Diffusion

Not many managers actually read academic journals unless they need to use it as a reference in their Master of Business Administration assignments or for their literature reviews in doctoral studies. Thus even management guru Tom Davenport (2005) has said:

I decided for myself a few years ago that publishing in 'A' journals – which are typically only read by other academics – was a waste of time. I like journals like *Harvard Business Review*, *Sloan Management Review*, and *California Management Review* that can be beneficial to academics and practitioners. If business schools aren't influencing the practice of business and management, what's their purpose?

Given that knowledge transfer is one of the key aims of higher education (Howard Partners 2005), the RQF does not take into consideration scholars who choose to make their work freely available on the internet, self-publish, or publish in trade journals due to the time taken for scholarly publishing.

The third author of this paper, Shankar Sankaran, joined SCU in 1999, after many years in industry, because the vice-chancellor at the time felt that practitioners would add value to management scholars at the university. He did not have a publications record when he became an academic as it was not necessary for career advancement in industry. At the second author Stewart Hase's promotional interview he was asked about his publications, which tended to be in refereed conference papers and lower-ranked journals. His reply was that his audience was practitioners and they were the ones he needed to talk to – this was accepted as a good answer since he got promoted. This is not likely to happen under the proposed RQF.

So if you measure the quality of knowledge production of an academic based on the number of citations by 'peers' (meaning other academics) in journals that have a high impact factor (judged by their reputation in academic circles), how do you judge the value of knowledge that is actually used in practice? While 'peer' recognition may be all right for scientific research, it is not relevant for business research.

The RAE and PBRF

The British RAE and New Zealand Performance Based Research Fund (PBRF), on which the RQF is modelled, have had their fair share of criticism. The RAE has come under fire from Britain's vice-chancellors and there have been calls for the 2008 assessment to be scrapped (Maslen 2005). It has been

charged with encouraging academic traditionalism, with the result that research in interdisciplinary fields has become more disadvantaged and establishing new research fields more difficult (Elton 2000). Since publications only count if they are in refereed journals, there is little incentive to disseminate research findings in the grey (non-peer reviewed) literature and in the form of textbooks (Clarke 2005; Elton 2000). Morley (2005) points out that if evaluated by the RAE criteria, the scientists who discovered DNA would have been classified as failing academics, as their work took too long to be returned in the RAE period of assessment.

[The] PBRF risks endowing greater value to 10 academics in the USA reading and filing one of our papers, than 100 New Zealanders reading it and doing something useful with the findings (Davies et al. 2005, p. 3).

A further criticism of the RAE and PBRF is that they influence academics to prioritise research publication, leaving junior colleagues and temporary staff to do most of the teaching and administration (Elton 2000; Davies et al. 2005).

Possible Biases

It is feared that the RQF is likely have an inbuilt bias for science and technology, teams and male researchers, and against the arts and humanities, individuals and female researchers.

Science Bias

The RAE is perceived as favouring science, engineering and technology over the arts, humanities and teaching, and it is believed that the RQF would have a similar bias. The Council for the Humanities, Arts & Social Sciences argues that research publication metrics become increasingly unreliable as you move through the social sciences and humanities into the arts, for it does not take into consideration that some high-level artistic practice is valued as research in its own right (Healy 2006).

There is talk of a separate stream of funding for the arts and teaching-oriented universities 'to keep up morale' (O'Keefe 2005a), but potential recipients perceive this consolation prize as adding insult to injury.

Team Bias

Individual researchers risk being marginalised under the RQF. The Australasian Council of Deans of Arts, Social Sciences and Humanities (2005) cites the case of Professor Colin Groves, who is acknowledged as the world's foremost expert in Primate Taxonomy

but who has no colleagues in his field in his own institution.

Male Bias

There are also concerns about the RQF's fairness to women researchers. For the RQF will be measured on the quality of impact over a six-year period, and it can be much harder for women to have a sustained output over that length of time because they are much more susceptible to having career breaks. Sarah Pearson, a physicist at the University of New England who took time out from academia to raise a family and work as a management consultant, has expressed fears that this could affect her prospects (O'Keefe 2005b).

Commercialisation

Some are critical of the narrow conception of commercialisation in the RQF. They point out that academics contribute through a range of activities, including pro-bono work for government advisory committees and local community organisations. At the same time, academics do not want a system that makes them bill every minute of their working lives (Barlow 2005b). The Innovative Research Universities Australia warns that commercialisation should not be viewed as a solution to research funding shortfalls, and points out that the role of the university should be to leverage talent, not technology (IRUA 2005).

Retrospectivity

The RQF's main flaw is believed to be its retrospectivity, that is, its bias towards academics with a track record. Federation of Australian Scientific and Technological Societies executive director Bradley Smith says, 'If it's cutting-edge, it hasn't had time to show its impact; and impact in various fields can take five, 10, 15, 20 years' (O'Keefe & Illing 2005). On the other hand, the Australian Technology Network group of universities, which has argued for recognition of the applied nature of its research, says it is 'bitterly disappointed' that impact was not weighted equally with quality (Morris 2005).

Some of the research conducted by doctoral candidates in business schools, many of whom are senior managers in industry solving real problems of importance to their organisations or industry, does have an impact, but the criteria used to judge impact are based more on how they affect public policy, in other words, generalisation from research findings. Most practitioner research is focused on addressing significant problems faced by the business and tends to be more specific. The research could have saved millions of dollars for the business and have had

excellent impact but how does it measure up to an RQF that uses a global scale? The RQF's esteem factor is fuzzier still.

Job Losses

In Britain, Brunel University announced that it was gearing up for the 2008 RAE by making 50 academics redundant and hiring 80 top researchers in their place (Maslen 2005). In Australia, Melbourne's Monash University has offered 200 voluntary redundancies as it tries to increase its proportion of research-focused staff in order to qualify for greater funding under the RQF (Macnamara 2005). In the UK, many chemistry departments were closed due to the overall poor rankings received from the RAE (NTEU 2005). Universities in Australia are second guessing the effect of the RQF to run down departments they think will not be money spinners, such as mathematics (O'Keefe 2006).

Red Tape

Onerous red tape is another major concern. Some universities are encouraging faculty to start putting together an evidence portfolio that demonstrates their international research standing. This could include evidence of the membership of editorial boards and review boards, editorships, keynote speeches, consultancies, engagement in international research networks, medals, media coverage – factors that go beyond the standard research measures of publications and national competitive grants. However, sceptics see this as just another layer of administrivia that serves no useful purpose (Illing 2005).

RQF Trials

'Mock' RQF trials have already led to a number of universities classifying staff as being research active or research inactive and attempting to increase the teaching workloads of research inactive staff (Nette 2006).

Like many other academics, after completing the self-evaluation in SCU's RQF trial, Shankar feels extremely discouraged. He feels that he is being placed in the untenable position of having to solicit "impact and esteem testimonials" from his doctoral students and is disillusioned with the workplace he came to with great enthusiasm to make a real contribution to bridge theory and practice.

Meanwhile, RMIT University announced that its own RQF trial had demonstrated that impact could be measured 'reasonably robustly'. However, this did not convince RMIT's Professor Mark Febbraio, who recently left the university for an RQF-free medical institute, taking with him his entire staff of 15, his laboratory and research grants worth \$1 mil-

lion a year, citing the RQF as a factor in his decision (Macnamara 2006).

Alternative Measures

Output Per Unit of Input

Studies by the League of European Research Universities and the University of Sussex show that superior research performance on the part of larger institutions is often closely associated with the level of inputs (IRUA 2005). Therefore, Innovative Research Universities Australia suggests using the productivity of an institution in terms of output per unit of input as a measure of research quality.

Department vs University Rankings

Other scholars have offered a measure to quantify the ‘mismatch’ between university rankings and department rankings, and make a case for the latter to be used in allocating research funds (Gangopadhyay & Gangopadhyay 2005). A case in point is the fact that while SCU is one of the smaller and newer universities in Australia, its business school has been rated highly in a study conducted by the Australian and New Zealand Academy of Management (AN-ZAM 2004).

A Matter of Trust

The Council for the Humanities, Arts & Social Sciences has prepared a low-cost, alternative approach that, it says, satisfies all the characteristics of a research quality exercise but tailored to the diverse needs of the humanities and social sciences sector – it simply trusts academics to make the case for their research quality and their submissions are then judged by a panel (Healy 2006).

Conclusion

It is true that the Expert Advisory Group for an RQF did consult widely before it made its final recommendations. However, the consultation process itself has been criticised for excluding more than a quarter of the country’s universities from the exercise (Poole 2005). And the tick-a-box format of the feedback invited is viewed as being not very good research (Maiden 2005).

A number of important issues still remain, including:

- How the research quality and research impact assessments will be combined to come up with an overall rating, for the nature and importance of impact and its relationship with quality varies

considerably both between disciplines and between the types of research undertaken;

- The fact that higher degree research students are excluded from the model, despite the fact that the results of the RQF will be used to distribute half of the existing Research Training Scheme grants worth \$270 million per annum;
- How early career researchers, and indigenous, cross-disciplinary and collaborative research will be dealt with. For instance, the RQF fails to acknowledge the differing research methodologies and cultural sensitivities associated with indigenous research; and
- How RQF outcomes will be reported and how they will translate into funding allocations (NTEU 2006; Nette 2006).

Thus it is not surprising that the government has pushed back the deadline for implementing the RQF to 2008 and reopened the consultation process by establishing a new group, the Development Advisory Group (Bishop 2006). However, universities have been left wondering just what the government hopes to achieve with only \$3 million allocated to the RQF in the 2006 “boom” budget, which saw billions of dollars given to other sectors. It has been estimated that the cost of implementation could be as high as \$20 million per RQF cycle for the university sector alone, rising to as much as \$50 million if the costs of administering departments are included (Go8 2005). Meanwhile, the logic of this costly exercise is being questioned when university funding from the federal government has been consistently indexed below the consumer price index (Marinova 2006).

It is ironic that even as Britain is considering replacing its RAE with an Australian-style metrics system of research evaluation, Australia is preparing to abandon this for a system based on the RAE (Illing 2006). Marinova (2006) believes that a false public image of lack of productivity in Australian universities is being created by the government. Since 2003, she says, Australia has outperformed the UK and New Zealand in terms of the number of Institute for Scientific Information journal paper listings on a per capita basis. Moreover, she points out that the increasing gap in academic productivity between Australian and British/New Zealand researchers broadly coincides with the introduction of those countries’ respective new university funding models. Hence, she argues,

The question should be asked not how the system should be changed to punish academics for not performing but how to further encourage an extremely positive trend (Marinova 2006, p. 8).

As Professor Ian Young, vice-chancellor of Swinburne University observed, in its present formulation the RQF is a zero sum game, redistributing funding rather than increasing it, and hence there will be no or few rewards for the second best (Hare 2006). This is part of a political agenda that seeks to impose an economic model on social systems such as knowledge production and diffusion.

There is a Chinese proverb which says: 'It is better to be the beak of a cock than the rump of a horse'. After considering the issues involved with the proposed RQF, academics of Australia's New Generation Universities may well feel that this should be the other way around, and that it is better to be the rump of a horse than the beak of a cock.

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