Performance-Based Research Fund
Sector Reference Group review:
Evaluating applied and practice-based research

Contents

Disclaimer:

This consultation paper has been prepared independently for the Tertiary Education Commission (TEC) by the Sector Reference Group, an external group, as part of the review of the Performance-Based Research Fund. Although the TEC is facilitating this process, the consultation paper represents the independent views and suggestions of the Sector Reference Group, and does not necessarily represent the views of the TEC.

PBRF SRG Review: Evaluating Applied and Practice-based Research

1. Purpose

This paper has been prepared as part of the consultation process for the 2012 Performance-Based Research Fund (PBRF) assessment, it:

- identifies issues and concerns about professional, practice-based and applied research in the PBRF research quality evaluation
- invites feedback from the Sector Reference Group (SRG) about these and any other issues felt to be relevant.

Areas of discussion not included in this paper

The SRG is considering a number of redesign issues for the PBRF 2012 Quality Evaluation and will prepare consultation papers on each. Where particular issues overlap papers, they will only be discussed in one. This paper will discuss issues concerning the assessment of applied and professional research.

2 Aims and principles of the PBRF

In carrying out its role, the SRG will be guided by the aims and principles of the PBRF. The PBRF is designed to:

- increase the average quality of research
- ensure that research continues to support degree and postgraduate teaching
- ensure that funding is available for postgraduate students and new researchers
- improve the quality of information on research output
- prevent undue concentration of funding that would undermine research support for all degrees or prevent access to the system by new researchers
- underpin the existing sector strengths in tertiary education research.

The PBRF is governed by the following principles:

- *Comprehensiveness:* the PBRF should appropriately measure the quality of the full range of original investigative activity that occurs within the sector, regardless of its type, form, or place of output.
- *Respect for academic traditions:* the PBRF should operate in a manner that is consistent with academic freedom and institutional autonomy.
- *Consistency:* evaluations of quality made through the PBRF should be consistent, across the different subject areas and in the calibration of quality ratings against international standards of excellence.

- *Continuity:* changes to the PBRF process should only be made where they can bring demonstrable improvements that outweigh the cost of implementing them.
- *Differentiation:* the PBRF should allow stakeholders and the government to differentiate between providers and their units on the basis of their relative quality.
- *Credibility:* the methodology, format and processes employed in the PBRF must be credible to those being assessed.
- *Efficiency:* administrative and compliance costs should be kept to the minimum consistent with a robust and credible process.
- *Transparency:* decisions and decision-making processes must be explained openly, except where there is a need to preserve confidentiality and privacy.
- *Complementarity:* the PBRF should be integrated with new and existing policies, such as Charters and Profiles, and quality assurance systems for degrees and degree providers.
- *Cultural inclusiveness:* the PBRF should reflect the bicultural nature of New Zealand and the special role and status of the Treaty of Waitangi, and should appropriately reflect and include the full diversity of New Zealand's population.

3 Principles of redesign

PBRF redesign work ahead of the 2012 Quality Evaluation will be based on the following principles and considerations:

- Upholding the aims and principles of the PBRF (outlined above).
- Learning from the first two Quality Evaluations in order to make improvements to the design of the PBRF and the implementation of the 2012 Quality Evaluation.
- Drawing on relevant experience and expertise across the tertiary education sector.
- Exposing proposed changes to rigorous sector and expert scrutiny.
- Achieving as much sector agreement as possible about how the next Quality Evaluation should be conducted.
- Avoiding costly or time-consuming changes unless there are good reasons for believing they will bring significant improvements.

4. Defining and evaluating professional and applied research

The PBRF takes a broad definition of research, including pure and applied research, creative works and Māori knowledge. It is consistent with the OECD Frascati Manual, which defines applied research as "original investigation undertaken in order to acquire new knowledge . . , directed towards a specific practical aim or objective" (OECD 2002, p.78). However, as Adams (2008) noted:

> "the problem is that much professional activity does not readily qualify as 'original research', but the boundary between strict professional practice and professional innovation (essentially a form of translational research) is inevitably blurred." (p.49)

The PBRF definition of research provides examples of differentiation between professional practice and research, specifically excluding the following activities:

- preparation for teaching
- providing advice or opinion, except where it is consistent with the PBRF's definition of research
- scientific or technical information services
- general purpose or routine data collection
- standardisation and routine testing (but not including standards development)
- feasibility studies (except into research and experimental development projects)
- specialised routine medical care
- commercial, legal and administrative aspects of patenting, copyrighting or licensing activities
- routine computer programming, systems work or software maintenance (but note that research into and development of, for example, applications software, new programming languages, and new operating systems is included)
- any other routine professional practice (eg. in arts, law, architecture or business) that does not comply with the definition (TEC, 2005a, pp. 20-21).

Panels attempted to reinforce this message. The Education Panel in 2006, for example, provided exemplars of the distinction between research and professional practice.

> "Descriptive reports of classroom practice are not research. But an analytic account, set in the context of other research, can be the basis of research. Curriculum documents are not of themselves research. However, a paper examining the intellectual processes involved in their development and the consultation of other research literature may be research." (TEC, 2005a, p.86)

A range of other examples could be put forward. Designing a new product is not a research output but writing up the innovative process used and submitting the paper for publication and review would be. Providing a policy submission to a Select Committee is not a research output, but a publication that reflects on the process of policy debate or theorises from it would be.

Nevertheless, feedback indicates that there is still disagreement about how research excellence in practice-related fields should be evaluated. Adams (2008), in his commissioned strategic review of the PBRF, noted "some (but not all) people feel that the outcome of assessment tends to devalue practice-based activity" (p.48). In addition, analysis of PBRF results in 2006 demonstrates that disciplines with large numbers of professional or practice-based researchers fill all of the bottom 10 places on the table. While there are complex and varied reasons for this, it can lead to perceptions that the PBRF itself demonstrates bias against these subjects.

One of the common complaints against the PBRF is that there may be an inherent bias against applied research. However, there is high-status medical and engineering research that falls into this category. As Stokes (1997) has demonstrated through his Pasteur's Quadrant model, use-inspired research in science can provide basic results.

		Consideration of use	
		No	Yes
Quest for fundamental understanding	Yes	Pure Basic Research (Bohr)	Use inspired basic research (Pasteur)
	No		Pure applied research (Edison)

(Stokes, 1997. p.8)

4.1 Assessing quality in applied research

The Expert Advisory Group (EAG) for a Research Quality Framework (RQF) in Australia, chaired by Sir Gareth Roberts, considered that both academic *quality* and the wider *impact* of research should be assessed. The group noted general support for examining the broader impact or application of research, both economic and non-economic, from the perspective of its end-users. They acknowledged that such an assessment would be problematic because of time lags and the difficulty of establishing direct causal relationships between research and changes in practice and that it would be most relevant to the applied end of the research spectrum. One way of ensuring that this occurred would be to involve external assessors as part of a peer review process. An RQF should take account of broader impact through the provision of advice from end users of research. The notion of impact does not readily lend itself to assessment by hard and fast metrics (EAG, p.7).

In the UK, Furlong & Oancea were commissioned by the Economic and Social Research Council in 2004 to undertake a project "to develop an understanding of quality that could assist subsequent development of quality criteria appropriate for different types of applied and practice-based research" (Furlong & Oancea, 2006 p.91). They found the issues complex and multi-faceted and argue that the short-term issue of developing quality criteria is insufficient. There should also be a longer-term debate about a new social contract for research that recognises the need for tighter links between research, practice and policy. They recommend a broad, multi-dimensional approach, taking account of four dimensions:

- methodological and theoretical robustness (the epistemic dimension)
- value for use (the technological dimension)
- capacity building and value for people
- the economic dimension.

Their work could well form a basis for more extended debate of research assessment .

4.2 Research and feedback on the assessment of applied and practice-based research

The PBRF

Adams (2008) in his commissioned strategic review of the PBRF noted, "some (but not all) people feel that the outcome of assessment tends to devalue practice-based activity" (p.48).

There is little evidence beyond the anecdotal to underpin claims the PBRF disadvantages practice-based researchers. An exception is a paper by Hall and Morris Matthews (2006). They assert, "it is very clear that 'professional schools' or departments within institutions that include a significant 'taught course' component at postgraduate level, stand to lose considerable revenue from the new funding regime" (p. 419). Their paper, which generated data from academics across all areas of Victoria University, found that staff from the School of Science indicated the PBRF would make little difference to their ways of working far more often than those in other faculties. Hall and Morris Matthews comment:

> "This perhaps will reinforce the perceptions of those in professional fields, that the 'standards' set by the PBRF for research are more akin to the nature of the work in traditional academic fields (sciences and humanities) than those in professional and applied fields." (2006, p. 440)

Other less formal evidence available to the SRG indicates that the PBRF can be perceived as sending perverse signals to the academic community in some fields. Some academic leaders and managers in professional areas report that the PBRF has made individual research achievement the goal to aim for and thus it is difficult to interest staff in working with industry or professional groups to foster partnerships and develop shared understanding of professional problems and needs. Again there is little systematic evidence but the claims are widespread in professional areas.

In many domains, it is typical to spend a number of years in the profession before becoming involved in tertiary teaching and research. Those who come to academia late - after a successful professional career - find it more difficult to present a portfolio that demonstrates an individual publication record though they may have contributed to systematic enquiry which impacts on their field. Their recruitment is essential for professional credibility within the field but it may be difficult to gain the recognition their professional status demands.

Institutes of technology and polytechnics (ITPs) engage mainly in applied research. A recent meeting of the Institutes of Technology and Polytechnics of New Zealand (ITPNZ) Research Forum in Wellington on 10 July 2008 raised a number of issues of concern about how this research is assessed and the need for guidelines to be inclusive. While explicit panel guidelines for some

of these issues are already in place it is clear that institutions still perceive their work is not appropriately considered. They suggested that:

> "Explicit panel guidelines should provide opportunity to submit supporting evidence from industry partners about the extent of impact of research on the industry/region/economy and that such evidence be given due credence.
>
> In Professional and Applied fields, value should be accorded to authentic evidence of research outputs across a range of dissemination modes, and that guidelines for those collaborating on research projects across institutions be clear.
>
> Consideration be given to those staff who have dual appointments as practitioners and researchers." This will be addressed in the consideration of special circumstances.

The Research Assessment Exercise

In a discussion of stakeholder perceptions of the Research Assessment Exercise (RAE), Adams (2006) noted that industry groups have concerns about the focus of the research base and the balance between basic and applied objectives. He also comments that it has been inferred that "there is an academic hierarchy across the basic-applied spectrum" (p. 52) though this is denied by RAE managers. He goes on to assert that "as knowledge transfer has become more important, so the ability to make links to users has increased in status, but old ideas remain deeply rooted" (p.52).

The discipline of Education, itself primarily a professional subject, has produced a wide range of critiques and examinations of the impact of the RAE on the field. (Armstrong & Goodyear, 2006; Dadds & Kynch, 2003; McNay, 2003). Furlong and Oancea (2006, 2007) claimed that educational research is subject to two distinctive policy discourses, "the first focusing on the need to promote ever increasing levels of internationally competitive quality, most frequently defined in terms of conventional academic rigour, and the second focusing on the need to serve the educational policy and practitioner communities" (p.90). They argued that these discourses are in tension or even incompatible and asserted:

> "It is now widely recognised that the drive for ever more clearly articulated definitions of research quality has, at least in part, served to marginalise applied and practice-based research in the UK."

5 Changes made to PBRF guidelines between 2003 and 2006

Concerns about the evaluation of practice-based research were identified and discussed by the SRG following the first PBRF round in 2003 (TEC, 2005b). As a result, the SRG recommended changes to the definition of research to clarify what constitutes research in the performing arts and recommended specific reference in panel-specific guidelines to the characteristics of excellence of applicable and practice-based research and appropriate indicators for assessing the impact of this research. (TEC, 2005b), pp. 58-9).

A number of panels in 2006 attempted to assist researchers working in applied fields to prepare their evidence portfolios, by elaborating on the generic guidelines with specific, discipline-based advice. For example, the Business and Economics panel provided criteria for evaluating "excellence in applicable and applied research" (TEC, 2005a p.78) and indicated that the panel would "have regard to possible constraints and access to internationally focussed publication channels that may be imposed when research is focussed on local situations or information".

Some guidance was extremely detailed. For example, the Engineering, Technology and Architecture Panel provided a careful elaboration of the definition of research. It also included the following statements:

> "The Engineering, Technology and Architecture Panel's coverage is broad, and research assessed will range from fundamental scientific research through professional practice-based or industry-linked research to creative work whose outputs may not necessarily be measured in terms of conventional publications. The panel will therefore address greater breadth in the types of research output and related evidence of quality offered by staff members than may be the case for panels whose coverage is more narrowly focused on fundamental science. Key words that the panel will use to assess the research contribution will be *new knowledge, creativity,* and *innovation.*
>
> Quality assured outputs are preferred as NROs. However, both quality-assured and non-quality-assured work can be submitted.
>
> Where an NRO is not quality-assured, or its quality assurance is not through conventional refereeing process (eg. Journal publications), the onus is on the staff member to provide evidence of its impact. This might include providing reasons why the output represents one of their best research outputs. Examples of such evidence are: size of user community, citations by other research groups, patents, other formal intellectual property underpinning the development, evidence of successful commercialisation, or adoption by the industry as new standard practice" (TEC, 2005a, p.90).

Some panels attempted to clarify ways in which the impact of applicable and practice-based research could be assessed. For example, the Business and Economics panel noted that impacts likely to result from good business research include:

- organisational practices changed as a result of such research
- educational pedagogy revised as a result of such research
- government acknowledgement of the value of such research in policy formation. (TEC, 2005a, p.77).

This panel provided further detail on characteristics of excellence in applicable and practice-based research.

However, there is a lack of consistency in panel specific detailed guidance with some panels providing little additional guidance.

6 Analysis of PBRF impact on applied and practice-based research following the 2006 Quality Evaluation

In a report commissioned by the TEC, Cinlar and Dowse, (2008) studied the performance of staff in six applied areas across 2003 and 2006. Those six areas (Architecture, Design, Planning and Surveying, Clinical Medicine, Dentistry, Education, Nursing and Veterinary Studies and Large Animal Science accounted for 22.2 percent of all PBRF-eligible researchers (1920 staff). They noted that there are other subjects (besides these six), that could be considered (at least) partly professional: Accounting and Finance, Design, Engineering and Technology, Other Health Studies (including Rehabilitation Therapies), Law, Pharmacy, Religious Studies, Sport and Exercise Science, and Theatre and Dance, Film, Television and Multi-media. However these additional subjects were not included in their analysis. Cinlar and Dowse focused on two key questions:

(1) Whether the PBRF makes it difficult for subjects dominated by practitioner-instructors to gain recognition for research produced by their staff.

(2) Whether there is evidence the TEOs are reducing the proportion of researcher instructors.

Their evidence was inconclusive.

Cinlar & Dowse (2008) found that four of the subject areas they studied improved their performance considerably over the three years between quality assessments. The average quality score in Dentistry rose from 1.8 in 2003 to 3.85 in 2006. This appears to be partly explained by staff changes. Over 60 percent (24 researchers) of the staff assessed in 2003 exited and 90 percent of those were unfunded while of the 20 percent of new staff in Dentistry, 87.5 percent were funded. However, Education and Nursing still had quality scores overall well below average, though Education also had a significant proportion of A and B rated researchers. Nursing had 72 percent of staff new to the PBRF and less than 10 percent of staff in funded quality categories. It is difficult to draw any meaningful conclusions from these figures.

As Cinlar and Dowse (2008) pointed out, three of the subjects in the applied professional research areas (Education, Nursing and Design) have a high proportion of staff working in non-university TEOs and thus may have contracts with more substantial teaching commitments. In Education, this factor will disappear by 2012, owing to the mergers of colleges of education and universities. Both Education and Nursing also have a high proportion of female staff, whom some commentators claim are undervalued by the PBRF process. However, it is difficult to determine any causal links.

7 Issues arising from the PBRF quality evaluation of applied and practice-based research.

A major feature of the debate in Australia over research quality assessment has been the emphasis on taking account of the *impact* of research. In the case of applied and practice-based research this means seeking feedback from end-users rather than reliance on citations and impact on the academic discipline, important as those factors are. The SRG considers that finding ways to reliably evaluate the impact of applied research on policy and practice would improve the quality of the PBRF assessment in New Zealand.

Some of the issues relating to the evaluation of quality in practice-based research are broad and long-standing and are unlikely to be settled by minor changes to panel guidelines or eligibility criteria. While some issues may be alleviated by comparatively minor changes to guidelines and assessment practices, the major issues demand the kind of robust national debate called for by Furlong and Oancea (2006). Such a debate could involve professional and industrial bodies as well as academics and could well be initiated by the TEC. The consultation around the development and publication of the report of the EAG chaired by Sir Gareth Roberts in Australia is an example of how such debate can occur. The SRG believes an intensive workshop seminar would be valuable to share ideas, define research questions and determine practical suggestions for changes in 2012.

The report on the 2006 Quality Evaluation (TEC, 2007) expressed confidence that the peer review panels had worked in accordance with the assessment framework and the results provided a fair reflection of quality in the sector. However, Adams (2008) noted that issues have been raised by some individuals and TEOs, suggesting that the guidelines themselves are either unclear or militate against the appropriate recognition of some forms of applied and practice-based research. This claim has also been made in the UK over the operation of the RAE.

One of the stated outcomes of the PBRF is to develop capacity in research. Adams and Smith (2006) note that Quality Related funding in the UK has often been used to enhance research training and capacity. In New Zealand, at least three applied areas, Nursing, Design and Education, will require sustained resourcing and assistance if their fields are not to be disadvantaged in the longer term to the detriment of large professional groups and those they serve. Lower performance may lead to a cycle where institutions with subjects that are unfunded or receive minimal funding are unlikely to be able to invest in developing a research culture and thus a poorly rated subject has little likelihood of raising its research profile. The PBRF is designed to reward quality; thus it properly channels funds to the highest performing areas. The SRG believes that it could be timely for the TEC to review areas that currently have low research capacity with a view to developing strategies that could assist research development.

Another issue is whether a fund rewarding professional engagement or creative excellence should exist alongside the PBRF to allow those involved in applied and practice-based research to have the option of having their excellence measured on different criteria that would remove the perverse incentives referred to above. Such a fund was recommended for consideration in the closing report of the 2006 Engineering, Technology and Architecture Panel. Again this is a major policy issue for consideration by the TEC.

Alongside the suggestion for a new fund, as outlined above, the SRG became aware (late in the preparation of this paper) of a recommendation from an external organisation to establish a new panel to evaluate commercialisation of research. This is discussed more fully under options for change below.

A guiding principle of the PBRF is comprehensiveness. It should "appropriately measure the quality of the full range of original investigative activity that occurs within the sector, regardless of its type, form or place of output" (TEC, 2003, p. 13). It is appropriate therefore to consider whether there are changes that can be made to the guidelines that would provide clarity to practice-based researchers. These principles were given weight in the recommendations made below.

8 Discussion of options for change

8.1 Further clarification of guidelines for what counts as research and providing appropriate evidence in an evidence portfolio

Changes to panel specific guidelines were made in 2006 to clarify the distinction between what would be considered research and what would be professional practice. The changes were circulated for consultation before implementation. In spite of these revised guidelines it appears that some academics and their TEOs feel their practice-based research is still not considered adequately. Perceptions remain that the impact of their research on policy and practice is not given due importance. It would seem appropriate therefore that panels be asked to review the guidelines again with particular emphasis on the criteria for applied and practice-based research and forms of demonstrating excellence that do not rely solely on citations or the standing of journals. Since journals can become a proxy for quality there is also a need for clear guidelines on the relative impact of research in international and local journals. Acceptance of a range of research outputs is crucial as are appropriate forms of dissemination. Panels should request specific sector feedback on their revised guidelines, especially in the area of recognition of professional outputs and exemplars of what activities might count as contribution to research environment or which forms of recognition might count towards peer esteem.

An examination of panel specific guidelines reveals that some provide a much higher level of specificity than others to help researchers and TEOs in the preparation of evidence portfolios. Further review would be both fruitful and helpful to researchers in practice-based fields. Areas for review could include:

- the use of exemplars. Panels could be asked to include specific exemplars as part of the guidelines. This already occurs in some areas
- guidelines for providing evidence about the extent of research impact that do not rely on citations or the status of journals would be valuable. How to provide credible QA for non-traditional outputs
- guidelines for evaluating the impact of research in international and local journals.

At present panel members carry a heavy load of responsibility for determining definitions and guidelines. The SRG considers it important that professional and academic groups in applied and practice-based fields are actively involved in the consultation process.

8.2 Composition of panels

For academics in applied and practice-based fields the issue of assessing impact of research on practice is of key importance. While peer review demands that assessors be competent to judge the quality of research outputs submitted, the perceptions that the needs of industry or professional groups are not being considered need to be addressed. In 2006 some panels included representatives of professional or industrial groups who could offer informed comment on changes to practice resulting from research projects. Others comprised only academics. The EAG in Australia gave strong support for the inclusion of industry representatives on assessment panels

and for representatives of public organisations as appropriate. Both the Roberts Review (2003) and the Lambert Report (2005) posed the question of whether the inclusion on assessment panels of "outsiders" or practitioners with knowledge of research impact might be a partial solution to perceptions of academic bias or narrowed judgements.

In recommending the composition of panels, Panel Chairs should be asked to consider the need to select expert reviewers who are able to assess impact more widely. This could involve including representatives of professional/industrial groups. Adams (2008, p.66) suggested, "panel members could benefit from the inclusion of more non-academic members from the private sector and adjunct professional areas".

- This option would provide assurance to practice-based researchers that the judgements of end users of their research would be given weight during the assessment process.
- The option would encourage panels to consider the wider impact of research beyond its inclusion in high profile journals.
- Identifying suitably qualified people for these roles may not be easy but the practice has already been introduced for some panels.
- It may increase the size of some panels because of the breadth of the subject fields to be covered.
- It may increase the incidence of conflict of interest cases if the fields are relatively specialised.

8.3 Panel training

While panels received training before the 2006 Quality Evaluation and were given copies of detailed guidelines for the assessment of evidence portfolios, questions have been raised as to whether all panels gave sufficient weight and appropriate credit to the innovative research component of professional activity.

In 2006 panels were each brought together for a day to be briefed by TEC staff and to engage in mock evidence portfolio evaluation and consequent discussion. However, international panel members were normally not included in this exercise. For panels where practice related research is likely to be submitted, specific training and debate over the weight to be given to research impact and knowledge transfer would be valuable before they undertake the evaluation of evidence portfolios. These panels might also spend additional time considering the use of holistic assessment to assess the total value of an evidence portfolio, which could be greater than the sum of the parts. The breadth and complex nature of quality assessment of practice-based research demands skilled judgement and imagination and the ability to think laterally.

8.4 Evaluation of peer esteem

Academic researchers whose research is practice-based may present evidence of peer esteem that differs from that of non-practice based researchers. Their peer esteem may come primarily not from other academics, though this is important, but from end users of their work who judge its practical significance. It is important that panels are equipped to judge this esteem appropriately.

Demeritt (2000) claims that "often the intersubjective processes of trust building, mutual understanding, and social learning involved in doing research can be as important for participants as the substantive results" (p. 326).

A strategy endorsed by the EAG in Australia was the inclusion of statements from independent referees in evidence portfolios. "Testimonials in support of research products, especially of Mode 2 research[1], were seen as useful adjuncts to portfolio evidence of the impact of certain types of research" (p. 21). Such referees could attest to peer esteem for researchers outside more traditional academic avenues.

8.5 Use of holistic quality categories in assessing practice-based research

The EAG for the Reasearch Quality Framework in Australia indicated, "the broader impact of research may need to be considered as part of a holistic overall assessment of research quality and impact" (EAG, 2005, p.21).

The current guidelines allow for the full panel at the end of the evaluation process and immediately before the allocation of final quality categories, to consider the award of a holistic quality category for particular evidence portfolios. They can have regard to a range of factors, including whether the evidence in the Peer Esteem category is congruent with the judgements made of the Research Output category descriptors, whether there are special circumstances or uncommon factors. There is no requirement for the component scores and the quality category to be in agreement if the full panel agrees on a holistic assessment. There is evidence that in the first two quality evaluations panels used holistic assessment conservatively and with caution. Holistic assessment appears particularly important in practice-based fields where dissemination of research findings may be largely through non-traditional means. Valuing the impact of the research and considering close relations with key users of results are vital. It is important that panels and panel chairs be alerted to the possibility of using holistic assessment with greater skill and confidence through the provision of exemplars for training purposes.

Holistic assessment is particularly important for individuals making the transition from a professional or industrial career to academia. They may have been members of research and development teams without producing individually authored papers, or clinical staff who developed forms of innovative practice that have impacted on their field. The individual evaluation of the PBRF creates a difficulty for these staff.

8.6 Eligibility issues

New academics appointed within a year of the census date are eligible for the PBRF evaluation. The provision of the New and Emerging ("NE") researcher quality category was designed primarily for those completing a doctorate and embarking on a research career. For a senior appointee with considerable professional experience, the first PBRF evaluation may be demoralising and

[1] Mode 1 refers to a model of knowledge production that has a disciplinary base, while Mode 2 refers to a new mode of knowledge production characterised by the following attributes: knowledge production in the context of application; interdisciplinarity; heterogeneity and organisational diversity; enhanced social accountability; and more broadly based system of quality control. (Gibbons, M. 1998. Higher Education Relevance in the 21st Century, Paris, UNESCO. Quoted in EAG, 2005, p. 21).

lead to a concentration on different forms of research and a turning away from practice-based work. An option to be considered would be an exemption from eligibility for a specified period or a specific category or considering academics who come directly from a professional career as "NE", though they may have held a doctorate for some time. New researchers who enter academia from industry or the professions in mid-career with extensive professional expertise which is needed by students, but without a background in academic research or a research degree, could be exempted from participation in the PBRF for a specified period eg. 5-6 years. This could be complex administratively and would need auditing. It could also lead to inconsistencies across panels.

Some academics who work in applied fields must commit a proportion of their time to clinical professional practice activities, such as supervision of student practica in Nursing, Counselling or Teaching or providing extensive professional development activities for others. An option would be to allow TEOs to exclude clinical practice from teaching load (even when this is part of a degree programme) in determining eligibility. While this could be both administratively complex and difficult to audit it would allow these academics to be classed as PBRF-eligible only for the time they spend on general teaching and research duties.

8.7 Recognising the value of commercialisation

During the development of this paper, the SRG was made aware of a specific recommendation developed by the TEC funded Growth and Innovation Pilot Initiative sited in Canterbury. This group claims that the PBRF is a major disincentive to the commercialisation of university based research and does not recognise the application of new knowledge as well as its discovery.

The Growth and Innovation Pilot Initiative Board was invited by the Minister to suggest ways in which the current system might be modified to incentivise innovative and entrepreneurial application of research. Their proposed solution was the establishment of an additional panel equipped and qualified to assess the quality of research with commercial outputs. Academics would assess the amount of their time devoted to this activity and submit two portfolios: one to the disciplinary panel to which their work related, and one to the new panel. The PBRF score for these academics would be the simple weighted average of the two scores.

The SRG discussed this proposal and has included it as an option for which it seeks feedback from the sector.

The SRG considered that the recommendation from the group was based on a perception of panel values and operation that may not be entirely accurate. Nor has the PBRF diminished the quantum of commercial research or the funding it generates: in fact, this has grown across the sector over the period during which the PBRF has been in existence. The issue of double counting was raised. Commercialisation brings its own financial rewards in addition to the quality funding provided by the PBRF.

It was noted that such a scheme would add to the cost and complexity of the PBRF exercise and that suitable indicators of quality for the proposed "commercial" panel still have to be developed. In terms of the issues relating to applied and practice-based research and assessment of its impact raised in this paper, the proposal would address only one dimension, that of entrepreneurial commercialisation.

The option should be considered alongside a recommendation from the Engineering, Technology and Architecture panel after the 2006 PBRF Quality Evaluation that a fund rewarding professional engagement or creative excellence should be recommended alongside the PBRF to allow those involved in applied and practice-based research to have the option of having their excellence measured on different criteria that would remove the perceived perverse incentives.

Table 1: Advantages and disadvantages of suggested changes to PBRF processes

Option	Advantages	Disadvantages
Providing greater detail in panel specific guidelines, in particular through addressing impact as a means of assessing quality.	Greater clarity for researchers and TEOs. Opportunity for consultation with stakeholder groups.	Possibly too much prescription.
Changes to the composition of panels evaluating practice-based research to ensure that representatives from industry, professional groups or public bodies are included as appropriate.	Will ensure the views of end users are heard and facilitate judgement of research impact. Will provide greater diversity of views on panels. Follows advice of EAG and British reports.	Could enlarge panels and increase cost. Could lead to conflict of interest. Could be difficult to find suitable and available candidates.
Training for panels to include specific debate on broad assessment of impact.	Will ensure panels are aware of impact issues and debate them.	Could lead to over emphasis on impact. May increase cost of training.
Allowing panel chairs to request confidential statements from nominated independent referees to attest to impact of applied research.	Allow for independent assessment in cases where conventional QA is not possible.	Could be administratively complex. Conflict of interest could arise.

Encouraging panels to consider holistic assessment on the basis of research impact in final phases of evaluation.	Will allow for consideration of impact at the end of the evaluation process. Would be consistent with the PBRF intention of *comprehensiveness*. Makes effective use of professional judgement of panel members.	Could lead to inconsistency across panels.
Allowing a period of grace of 5-6 years for academics newly appointed from industry or the professions before they become eligible for the PBRF. This would be an alternative to "NE" status for those academics.	Allows new academics from industry and the professions to establish themselves as individual academic researchers without the demoralisation of an appropriate PBRF assessment too early.	Complex administratively for TEOs and individuals. Complex for the TEC to audit. Could lead to inconsistencies across panels.
Allowing TEOs to exclude clinical practice from teaching load, even when this is part of a degree programme, in determining eligibility.	Eligibility calculated on academic teaching and research time.	Eligibility calculated on academic teaching and research time.
Establishing a new entrepreneurial panel to supplement existing discipline-based panels and allow academics who so wished to submit evidence portfolios to this new panel and to a disciplinary one with a grade derived from a weighted average of the two scores.	Would provide incentives for commercialisation of research and recognition of its value.	Would add to the cost and complexity of the PBRF process. Lack of clarity about what the quality indicators would be. Possible double counting – commercial and PBRF funding. Would address impact factors of applied research in only one dimension.

9 Recommendations

9.1 The SRG invites comment from the sector on the following recommendations

The SRG recommends that all panels be required to re-examine their panel specific guidelines for the preparation of evidence portfolios to ensure that the distinction between research and professional practice activities is made clear and exemplified.

The SRG recommends that panel chairs be instructed to consider whether some panel members should be appointed from outside academia to provide informed comment on the practical impact of applied research.

The SRG recommends that the training for panel members and chairs include specific discussion of seeking wider evidence of peer esteem and evaluating research impact.

The SRG recommends that panels be encouraged to consider the appropriateness of holistic assessment in the final stages of the evaluation process, taking account of research impact.

9.2 The SRG seeks further sector guidance on the following issues

Whether panel chairs should be empowered to seek independent referees advice to comment on research impact for evidence portfolios where the researcher has been appointed to a TEO from professional practice or industry within the assessment period.

Whether a fund rewarding professional engagement or creative excellence should be recommended alongside the PBRF to allow those involved in applied and practice-based research to have the option of having their excellence measured on different criteria. Such a fund was recommended for consideration in the report of the 2006 ETA Panel.

Whether an additional 'entrepreneurial' panel to provide specific assessment of research commercialisation as a supplement to academic research evaluation should be established.

Whether TEOs should be able to exclude clinical practice from an academic's teaching load, even when this is part of a degree programme, in determining eligibility.

Whether academics appointed directly from professional or industrial experience should be allowed a 5-6 year period of grace before becoming eligible for the PBRF quality evaluation.

How professional and industrial bodies can be encouraged to engage in genuine debate with the TEC on issues involved in the rigorous and comprehensive evaluation of the quality and impact of applied and practice-based research. Would the sector support a TEC sponsored forum on these issues?

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Performance-Based Research Fund

Feedback template
for

Evaluating applied and practice-based research

Feedback from:	
Contact details:	

1. Purpose

The purpose of this template is to provide a mechanism for collecting feedback on the matters raised as part of the PBRF Assessment Framework Consultation paper.

The objective is to obtain feedback in such a way that will speed the collation and review of feedback pertaining to specific areas of interest.

Respondents are encouraged to use this template to provide feedback, but should not feel limited in any way from providing comments in addition to those requested in the template.

Timeframe for feedback

1. Completed templates and any other comments should be emailed to PBRF.2012Redesign@tec.govt.nz or can be posted to Dr Damien Cole, Tertiary Education Commission, P O Box 27048, Wellington 6141.
2. Feedback would be appreciated as soon as possible, no later than 5pm, Friday, 23 January 2009.

2. Feedback

The SRG seeks further sector guidance on the following options:

- Whether panel chairs should be empowered to seek independent referees advice to comment on research impact for evidence portfolios where the researcher has been appointed to a TEO from professional practice or industry within the assessment period.
- Whether a fund rewarding professional engagement or creative excellence should be recommended alongside the PBRF to allow those involved in applied and practice-based research to have the option of having their excellence measured on different criteria. Such a fund was recommended for consideration in the report of the 2006 ETA Panel.
- Whether an additional 'entrepreneurial' panel to provide specific assessment of research commercialisation as a supplement to academic research evaluation should be established.
- Whether TEOs should be able to exclude clinical practice from an academic's teaching load, even when this is part of a degree programme, in determining eligibility.
- Whether academics appointed directly from professional or industrial experience should be allowed a 5-6 year period of grace before becoming eligible for the PBRF quality evaluation.
- How professional and industrial bodies can be encouraged to engage in genuine debate with the TEC on issues involved in the rigorous and comprehensive evaluation of the quality and impact of applied and practice-based research. Would the sector support a TEC sponsored forum on these issues?