

Terms of Reference Issue Paper 3: Recognising and Rewarding all Types of Research Activity

Purpose

This paper aims to provide supporting information for the Performance-Based Research Fund (PBRF) Review panel, as they look at one of the six issues in the Terms of Reference (ToR) for the Review – recognising and rewarding all types of research activity.

The ToR state that the Review will consider how the PBRF can better support the research activity of all types of research, including basic, applied, creative, mātauranga Māori research, and Pacific or other cultural research perspectives. This will include consideration of whether any specific support is required to enable some organisations to effectively participate in the PBRF, or whether a separate funding mechanism may be required to support particular types of research activity or help organisations build their research capacity and capability.

Background

While the PBRF has been designed to recognise and reward all kinds of research activity, there are concerns from some Tertiary Education Organisations (TEOs) and research staff that, in practice, not all types of research are assessed equitably by the PBRF processes. The different types of research in question are broken down by type in the issues section below.

Linked to this are concerns around how our smaller TEOs are generally geared towards the sort of research that has potentially been disadvantaged by the PBRF.

Related to the issues in this paper, while it is encouraging that the numbers of researchers identifying as Māori or Pacific is increasing, the numbers show there is still a lack of representation as compared to the wider population. This has flow on effects for TEOs and the students in them. Recent research has shown that the proportion of Māori and Pacific staff in tertiary education has not increased in recent years and argues this raises questions about TEOs commitment to Te Tiriti o Waitangi¹ and the treatment of Pacific academics employed by TEOs.² This lack of representation also means Māori and Pacific students at TEOs are not being taught by a workforce representative of who they are.

It is important to note that, as with all of the issues in the ToR, there are interdependencies between potentially better supporting all types of research and any other recommendations made in other areas. For example, if a decision were made to create a new weighting for Evidence Portfolios submitted to the Māori Knowledge and Development Panel, this could have the effect of increasing transaction costs (for example, auditing whether research staff are correctly classified as 'new and emerging' has introduced significant additional transaction costs).

¹ 'Why isn't my professor Māori? A snapshot of the academic workforce in New Zealand universities', McAllister et al, 2019.

² 'Why isn't my professor Pasifika? A snapshot of the academic workforce in New Zealand universities', Naepi, 2019.

Currently the PBRF contains a mixture of different sorts of weightings, designed to reflect the quality and cost of research, as well as equity weightings. Outlined below are some of the relevant weightings for recognising and rewarding all types of research.

Relevant Weightings for the Quality Evaluation Component

The funding for the Quality Evaluation is based on three components, the full time equivalent status of staff, the quality categories for each evidence portfolio, and the subject area weighting. The subject area weightings currently are:

| Subject Areas | Funding Category | Weighting |
|--|------------------|-----------|
| Māori knowledge and development; law; history, history of art, classics and curatorial studies; English language and literature; foreign languages and linguistics; philosophy; religious studies and theology; political science, international relations and public policy; human geography; sociology, social policy, social work, criminology and gender studies; anthropology and archaeology; communications, journalism and media studies; education; pure and applied mathematics; statistics; management, human resources, industrial relations, international business and other business; accounting and finance; marketing and tourism; economics; and Pacific research. | A, I, J | 1 |
| Psychology; chemistry; physics; earth sciences; molecular, cellular and whole organism biology; ecology, evolution and behaviour; computer science, information technology, information sciences; nursing; sport and exercise science; other health studies (including rehabilitation therapies); music, literary arts and other arts; visual arts and crafts; theatre and dance, film and television and multimedia; and design. | B, L, V | 2 |
| Engineering and technology; agriculture and other applied biological sciences; architecture, design, planning, surveying; biomedical; clinical medicine; pharmacy; public health; veterinary studies and large animal science; and dentistry. | C, G, H, M, Q, N | 2.5 |

These subject area weightings are linked to the Student Achievement Component funding, i.e. the relative cost of teaching each subject in TEOs. Both Pacific Research and Māori Knowledge and Development are currently assigned a '1' weighting. The shift to a unified funding system as part of the Reform of Vocational Education could affect thinking about this, and we will be providing you with more information on this later.

Relevant Weightings for the Research Degree Completion Component

The funding for the research degree completion component uses the same subject area weightings as the Quality Evaluation. In addition to this, it also applies an equity weighting (which is not used in the Quality Evaluation). The equity weightings currently are:

| Ethnicity | Weighting |
|-----------------------|-----------|
| Māori | 2 |
| Pacific | 2 |
| All other ethnicities | 1 |

It should be noted that where an additional weighting is applied for the completion of theses in Te Reo Māori, then no ethnicity weighting is applied (ie only one can be applied under the current rules).

Issue

Basic and Applied Research

Concerns

Concerns have been raised by some in the sector that the way knowledge is assessed by the PBRF disadvantages applied research, as compared to basic research. Applied research does not tend to have as many traditional journal type outputs, instead it has a stronger focus on engagement with industry and end-users, as well as community groups. Institutes of Technology and Polytechnics (ITPs) have a particular interest in how applied research is assessed as ITPs tend to have a greater focus in this area than the universities.

There is a concern from the sector that these non-traditional outputs associated with applied research may have had variable recognition by the Quality Evaluation panels, and that work with industry is not as well regarded by panels as more traditional outputs.

Some in the sector have stated that this has a wider impact beyond the research staff carrying out this research, and the TEOs that tend to specialise in this type of research. The resultant risk is that the PBRF is not encouraging the type of applied research that is focussed on benefiting the full range of New Zealand industry and community needs and objectives.

Main Challenges

Issues regarding PBRF assessment of applied research include concerns with the Quality Evaluation panels that assess applied research having limited representation from the ITP sector - generally due to limited panel member nominations from the sector, and are instead made up of more traditional researchers.

It should be noted that there are difficulties in defining what qualifies as applied research and what does not. The Quality Evaluation does not currently distinguish between applied and pure research for assessment purposes, making it difficult to draw conclusions about if one is advantaged over the other. This goes beyond the PBRF process, and the Ministry of Business, Innovation and Employment (MBIE) have also signalled that this is an issue they encounter when assessing research applications, such as for their Endeavour Fund.

Possible Implications

If a decision is made as part of this Review to introduce greater assessment of impact this could inadvertently encourage more applied research which has a propensity towards broader concepts of impact, beyond academia.

One option in this area would be to look at self-identification by research staff who consider their research as being applied in nature. The viability of this option will be linked to the type of mechanisms put in place to encourage applied research (i.e. research staff could choose to identify their research was of an applied nature if that resulted in a higher weighting). Any self-identification that has funding implications needs to be structured in a way that can be audited.

Research Published in New Zealand

There is a general sense from some in the sector that the PBRF doesn't support New Zealand based research, published in NZ journals, with links to local communities. However whether something is 'world-class' is determined by the research methodology and approach, not if it is published in an international or world-class journal. The Tertiary Education Commission have been very clear (and reinforced in the training given to panels) that:

“Research outputs that deal with topics or themes of primarily local, regional or national focus or interest can be of world-class standard. For example, research that focuses on Māori or Pacific topics or themes, New Zealand history, or New Zealand culture, economy, wellbeing or ecology may rank with the best research of its discipline conducted anywhere in the world.”³

Mātauranga Māori Research

Mātauranga Māori is a taonga unique to New Zealand and fully realising the potential of Māori knowledge, people and resources will benefit all New Zealanders. This Review provides an opportunity to ensure that the Crown is operating in a way that gives effect to the Te Tiriti o Waitangi when administering the PBRF and is safeguarding and developing Mātauranga Māori.

Currently the objectives of the PBRF state that it will “support research activities that provide economic, social, cultural and environmental benefits to New Zealand, including the advancement of Mātauranga Māori. The guiding principles also state that the PBRF should reflect “the special role and status of the Treaty of Waitangi”.

There are longstanding concerns that the PBRF does not understand and value Mātauranga Māori research. This was raised in the 2012/13 Review, and has been a consistent issue for the wānanga sector, along with the dominance of universities in the allocation of funding. Māori perspectives and critical stances are not always accurately reflected across current fields of research, this includes fields of academic inquiry where Māori researchers are actively engaged or where Māori research methods are regularly employed.

The 2018 Quality Evaluation results showed that the Māori Knowledge and Development panel had the second largest percentage growth in funded Quality Categories between 2012 and 2018, up 39%.

The Quality Evaluation's Māori Knowledge and Development panel is well regarded, but not all Māori research is assessed by this panel. Concerns have been raised around the expertise on panels other than the Māori Knowledge and Development panel to understand Māori and indigenous research, and appreciate the innovation that goes into these areas. However, finding sufficient panellists with this expertise has proved challenging despite ongoing efforts. The PBRF Moderation Panel has recommended that a Maori Moderator be appointed for any future Quality Evaluations to help address these issues.⁴

It should be noted that there are a wide range of views and perspectives around the Māori approach to research (as demonstrated by the differing views of the wānanga

³ Tertiary Education Commission, Guidelines for the 2018 Quality Evaluation Assessment Process.

⁴ <https://www.tec.govt.nz/assets/Publications-and-others/PBRF-2018/268776b02d/Report-of-the-Moderation-and-Peer-Review-Panels-PBRF-2018-Quality-Evaluation-12-09-2019.pdf> p 13

towards participating in the PBRF), and Ngā Pae o te Māramatanga (a Centre of Research Excellence) is not representative of the wānanga sector or Mātauranga Māori research in general. Māori research continues to work in cross-cultural and cross-disciplinary contexts.

The Wānanga Sector

Each wānanga in the sector has a different history of participation in the PBRF: Te Wānanga o Raukawa has never participated; Te Wānanga o Aotearoa is a participant but did not take part between 2012 and the latest Quality Evaluation in 2018; and Te Whare Wānanga o Awanuiārangi has participated in the PBRF since 2006.

The wānanga sector believes the Quality Evaluation process does not recognise Māori research practice, and disadvantages their institutions which when compared to the universities have very limited existing research infrastructure and systems. Te Wānanga o Aotearoa have recently raised their concerns with us around the level of funding they will receive annually, despite their improved Quality Evaluation results.

While their particular situation has been compounded by the decline in per-point funding for the Quality Evaluation component, they are concerned that they cannot be competitive in the two other components (and therefore the PBRF in general) unless they significantly overhaul their structure, kaupapa and mix of provision that is currently geared towards serving their communities.

The Wānanga Research Capability Fund (WRCF) was introduced in 2008 to support research capability and research-based teaching and learning in wānanga in an attempt to address some of the concerns wānanga had with Government support for mātauranga Māori research. The fund amounts to \$1.5 million per year and is shared equally between the three wānanga.

Although the WRCF was considered to be a temporary measure, a sustainable solution to research funding for wānanga has yet to be developed. In 2019, as part of the ongoing Wānanga Research Aspirations project⁵, the WRCF was increased to \$6 million per year (subject to existing conditions) for a three year period to allow time to co-design a more appropriate and sustainable solution to the research ambitions of wānanga.

Pacific and Other Cultural Research Perspectives

Pacific research plays a vital role in sustaining Pacific cultures and communities. As with Mātauranga Māori research, there are also concerns with how the PBRF understands and values Pacific research, which plays a vital role in sustaining Pacific cultures and communities. For example, there are concerns about whether we are developing Pacific research capabilities and if we are prioritising Pacific research expertise and methodologies.

There are few senior Pacific academics active in New Zealand and they are committing significant resources to developing new and emerging Pacific researchers. This needs to be well supported across the tertiary and research systems, including by the PBRF.

⁵ The Wānanga Research Aspirations project was established following the 2012/13 PBRF review.

The Pacific Research panel is a more recent development in the PBRF (only fully established for the 2018 Quality Evaluation). This recognised the growth of this research area in its own right, building on the Pacific Expert Advisory Group, which was formed as part of the 2012 Quality Evaluation.

This panel was designed to recognise the role of Pacific-based research methodologies and methods, and acknowledge the importance of Pacific-centred subject matters in increasing research quality and contributions to the research environment.

The results of the 2018 Quality Evaluation showed that the Pacific Research panel had the largest percentage of the 'outreach and engagement' contribution type across all of the panels. The key activities associated with this contribution type include community engagement, contribution to public understanding, being the critic and conscience of society, and helping to foster debate.

Creative Research

There have been concerns raised around how the PBRF recognises and rewards creative research. This raises the question around whether the Quality Evaluation needs more flexibility around recognising different types of research outputs. This could also be relevant for the other areas of research discussed in this paper.

However, some in the sector believe that creative research is actually more validated as a result of the PBRF, and that it has helped to define what is meant by 'world-class' research in the creative sector.

PBRF reflecting the sector or shaping it?

It is difficult to distinguish whether the PBRF is causing or contributing to the issues we see, or if it is reflecting existing systemic issues or trends in the sector. If a PBRF mechanism designed to address the undervaluing of a research area is put in place, but the PBRF is not the sole cause, then efforts should be made to also address the wider research environment.

For example, there has been a growth in Evidence Portfolios in the STEM subject areas compared to the humanities subject areas. This disparity is likely the result of diminishing demand for degrees in humanities subjects, and therefore a decline in teaching and research staff, rather than being caused by the PBRF.

While the Terms of Reference for the Review do not address issues beyond the PBRF, it is worth noting the PBRF is not the only mechanism for addressing the issues it has helped to reveal.

Capacity of smaller TEOs to participate in the PBRF

Many of the areas of research discussed here often come from smaller TEOs, who can lack the capacity to effectively engage in the PBRF (ie applied research coming from ITPs, and mātauranga Māori research coming from wānanga). These capacity issues can also be compounded by the nature of these smaller TEOs, for example ITPs have higher class contact time, so their research staff have less time available for research.

In addition, ITPs do not usually have the same number of post-grad students to be able to help support research work programmes. Research is often done by individual researchers with limited time and a lack of peer support compared to a university with multiple researchers in a field and more opportunities for networking and support.

It is important to note that the makeup of the sector will be fundamentally altered by the Reform of Vocational Education (RoVE) changes. We will have a participation profile that is less balanced in terms of research volume, with the universities and the new NZIST as quite large TEOs, and then some quite small TEOs (in terms of research activity) with the wānanga and PTEs.

Subject Area Weightings

The subject area weightings, outlined above, are designed to reflect the relative cost of delivering those courses (ie teaching them). There may be a better way of reflecting the cost of doing research in those areas.

Other factors could be considered, eg an equity weighting for researchers or for the research itself. The PBRF currently has an equity weighting for the Research Degree Completion component, but it does not for researchers being awarded Quality Categories in the Quality Evaluation component of the fund. The PBRF Moderation Panel has recommended that an equity weighting for Māori and Pacific staff be implemented. However this would not necessarily have the effect of supporting all Māori and Pacific research, as there isn't necessarily a correlation between researcher ethnicity, research topic and which panel they submit their Evidence Portfolio to. This approach would exclude Māori and Pacific research done by non-Māori and Pacific researchers.

Therefore, careful consideration would need to be given to what weightings or combinations of weightings would most likely have the desired outcome in terms of diversity of research or diversity of the research work force. Research relevant to Pacific communities and issues is being done by non-Pacific researchers. Similarly, Māori and Pacific researchers submit Evidence Portfolios to all panels, not just the Māori Knowledge and Development Panel and the Pacific Research Panel.

In addition, defining what constitutes Māori or Pacific relevant research would be quite challenging and difficult to audit. The panels themselves are unlikely to be a sufficient proxy for subject area as the remit for the Māori Knowledge and Development Panel and the Pacific Research Panel differ from each other. The Māori Knowledge and Development Panel primarily assessed Evidence Portfolios with Māori research methodology, rather than solely Māori-relevant content (which was assessed by the relevant subject matter panel). The Pacific Research Panel took a broader approach including Pacific-relevant content as well as content using a Pacific research methodology.

Finally, there is currently no equity weighting for the External Research Income component. So if a TEO is receiving funding externally for a project aimed to improve outcomes for Māori for example, then that is not acknowledged through additional funding through the PBRF. It should be noted that this would be very difficult to define. In the Quality Evaluation TEOs selected many different Evidence Portfolios for cross-referral to the Māori, Knowledge and Development Panel and the Pacific Research Panel, based on this idea. However many of these were rejected as they did not have strong enough links. Further work would have to be done in this area on the potential for clear and measureable criteria.

Possible Areas for Consideration

Specific Support within the PBRF

One option would be to look at the possibility of increasing the weighting research assessed by the Māori Knowledge and Development and the Pacific Research panels. This has the potential to increase the support provided to research staff by their institution if they are carrying out work in one of these areas. There also is precedence for putting in place a weighting with the aim of achieving a specific policy aim (i.e. the weighting for new and emerging researchers). However, these types of weightings can require extensive auditing in order to prevent gaming. For example, all researchers submitted as new and emerging were audited during the 2018 Quality Evaluation to ensure they met the criteria following high error rates in this area in the 2012 Quality Evaluation).

Another option would be to differentiate funding based on organisational capability, so Evidence Portfolios submitted by smaller TEOs were weighted higher. This would recognise the limited capability and capacity within these organisation to carry out research and participate in the PBRF process and would be relatively easy to audit compared to other self-selected methods. It would be important to consider how the New Zealand Institute of Skills and Technology (NZIST) would fit into this process, as a very new, but relatively large TEO.

Separate Funding Mechanism

Another option would be to put in place a separate funding mechanism. This could apply to smaller TEOs or TEOs carrying out research activity the PBRF would specifically like to encourage. For example there could be an increase in funds for the WRCF, an existing separate funding mechanism and a new mechanism put in place to support Private Training Establishments (PTEs) or the new NZIST.

However separate funding mechanisms could create a two-tier system where one is regarded as less prestigious as the other. For example, Te Whare Wānanga o Awanuiārangī have signalled to us that they will continue to participate in the PBRF because of its goal to become internationally known as an indigenous university.

High-level signalling of the value of all types of research

You are looking at the objectives of the PBRF and as part of this work, you could consider incorporating a message about recognising and rewarding all types of research activity here.

While the ToR are limited to potential changes to the PBRF, you could recommend further work in other related areas (ie other funding mechanisms, strategies, legislation), as the PBRF is not the only mechanism for change.

More work could also be done on guidelines for the panels, such as putting in place a specific set of measures designed to help panels determine quality where the research is of an applied nature with non-traditional outputs.

Annex 1: International Comparisons

It should be noted that many of the issues in this paper do not have relevant international comparisons (ie international research funding systems based on peer review do not make specific mention of how the different sorts of research discussed in this paper should be assessed).

United Kingdom

The Research Excellence Framework (REF) uses a similar peer review system as the PBRF. A 2018 Review of the REF found that concerns about applied research being disadvantaged were:

“not likely to be especially pertinent and since the 2014 the REF’s impact dimension mitigates this issue further, as applied research is thereby explicitly encouraged. The use of different panels for different subjects means that the opportunities directly to compare basic and applied fields are reduced, reducing the risk that one form of research is judged by the standards of another”.⁶

⁶ Review of the Research Excellence Framework Evidence Report, technopolis, October 2018.