

Response to the TEC discussion document “The Distinctive Contributions of Tertiary Education Organisations

August 2004.

Introduction

The Tertiary Education Commission (TEC) has released (May 2004) a discussion document entitled “The Distinctive Contributions of Tertiary Education Organisations” (TEOs) in which the nature of these organisations is discussed. The TEC requested feedback regarding specific questions outlined in the discussion document, on the distinctive contributions to education in New Zealand made by universities, institutes of technology or polytechnics, colleges of education, private training establishments, wananga and other tertiary organisation types. The rules that exist for each ‘type’ of education organisation are not completely repeated in the document; however a summary of their general roles and statistics relating to some of the specific attributes are given in the document.

This paper is the response of the Royal Society of New Zealand (RSNZ; August 2004) to the TEC document, and has been prepared by an RSNZ policy analyst with additional review from the Education Committee and members of the RSNZ Council. The response has not been ratified by the Council of the RSNZ and, as such, is not yet the official policy of the RSNZ.

Throughout this paper, the TEC questions for feedback are in bold type.

Universities

What characteristics are essential for describing and maintaining a high and internationally credible threshold for NZ's university sector?

The RSNZ sees three clearly important characteristics for describing and maintaining a high threshold and internationally-credible university sector in New Zealand.

Research Characteristic:

All lecturers or departments should combine teaching with research, so that the lecturers can 'own' the knowledge (i.e. they may have 'written the book', rather than just be reading from one). Where a researcher is playing a leading role in a field of research, they will invariably have a stronger command of the overall field than a passive observer and, having this stronger command, will teach more confidently. The standard of research can and should be internationally recognised, and this will form a benchmark for the quality of the degrees taught.

Quality Characteristic

i) Expectations of graduates

New Zealand graduates must perform in the global market (whether within NZ or externally) for employment and S & T delivery and should meet local and international expectations of degree-qualified people. In addition, the standards of qualifications taught at universities should provide for the 'degree-qualified people' needs of industry. That is, increasing the numbers of graduates while reducing their standard of education does not serve NZ well. Having industry expectation and satisfaction indicators may be difficult but would benefit the equation.

ii) Quality comparisons

Universities should benchmark against top-quality overseas universities. The quality of research can easily be measured using standardised quality benchmarks, such as citations of publications, international awards, peer review etc., such as used in the PBRF.

Importance of post-graduate training

It is worth noting that the universities working in the more applied spectra of research, (such as Lincoln and Massey) tend to have higher proportions of postgraduate EFTS/total EFTS, and these universities provide well for the industries in NZ. It is also noteworthy that there is a

feeling that the PBRF assessment rules do not cater well for those universities whose research outputs include consultations with, and services to, industry, with necessarily fewer publications (such as the 'applied research' focussed universities, Lincoln and Massey). Perhaps more weighting should be given to numbers of post-graduate completions and/or PhD supervision in the PBRF. This key area provides for the future human capital requirements of NZ and should be recognised as important.

Despite the importance of post-graduate level teaching, we think that the ratio of post graduate-level EFTS to total EFTS need not necessarily be set at an obligatory level. This is because there may be mitigating factors (for not achieving a set level) as the tertiary education reforms proceed. For example, considering the trend to merge Teachers' Colleges with Universities, there might be an alteration in the ratio of post-graduate research degrees to other qualifications taught, without indicating a change in the level or quality of university teaching or qualifications.

Question: If higher benchmarks are needed, what form should they take?

Currently, New Zealand's traditional universities have a proportion of students at post-graduate level ranging from 14% to 18%. It would make sense, therefore, to aim to maintain this level, and aspire to it, over time (e.g. 10-15years), for those universities that have recently merged with undergraduate colleges, or have recently been instituted (e.g. AUT at which the reported proportion is below 4%).

It is worth noting that in Finland approximately 13% of all students (degree level, i.e. not including polytechnics) are post-graduates nationally. However, the proportion in Europe at an individual university is not always comparable, as some universities have 'post-graduate research schools' with a focus on advanced degrees only. The evaluations of many of these schools (e.g. in the Netherlands) are yet to prove their efficacy, and we do not know whether such models would be warranted in New Zealand.

How should any transition be managed?

Any transition could be managed via funding incentives, i.e. allowing a higher 'profit' from post-graduate EFTS than undergraduate EFTS. Increasing the weighting for post-graduate supervision in the PBRF assessment would also increase the pipeline of advanced-skilled people into the New Zealand workforce.

Non-Degree Level Teaching

Question: should a cap be placed on the proportion of sub-degree programmes at universities?

Currently, this only affects one university, AUT, which, as a recent addition to the list of 'traditional' universities would be expected to increase its proportion of degree-level teaching over time. It seems excessive to enforce a new rule essentially for one university only, when there could be a more incentive-driven process to achieve the goals of, say, 90% minimum degree-level teaching across the board.

Question: should funding only be provided to those sub-degree programmes at universities that make a demonstrable contribution to the TES/ STEP goals?

Yes. While the universities have autonomy with respect to their operations, it could be considered that sub-degree level training is the mandate of the polytechnic institutes. Therefore, if universities are involved with such programmes then they should be for the national good, without 'breaching the territory' of polytechnics. These social and equity goals are separate from the general learning and teaching goals and therefore need different measures to demonstrate success of these goals. Separate evaluation of sub-degree-level programmes should be mandatory.

Question: if restrictions on funding for sub-degree programmes in universities are appropriate, over what timeframe should they be introduced?

Our answer comes back to the notion that these restrictions are aimed at only one university (AUT), and taking a historical perspective, it would be reasonable to expect that in 15-20 years such a new university would have 'caught up' with the others. Taking a short time frame will only disrupt the human capital investment processes and could result in loss of capabilities necessary for successful future operations of the university. Short term views could also affect nationally important human capabilities, such as cutting off some learning sectors resulting in loss of staff overseas. The succession planning of human capabilities across universities and polytechnics takes time; and returns on investment in human capital is lost at a national scale if restrictions on funding are brought in within a short time-frame.

Institutes of Technology /Polytechnics

Question: How can ITPs best be encouraged to maintain a focus on teaching and learning at sub-degree level?

It is agreed that ITPs play an important role in vocational training and practical education. There is room for achieving trades and industry training outcome requirements without the need for performing research or of necessarily employing highly qualified (PhD-level), teachers. Therefore a financial incentive already exists for these organisations to remain outside the university territory of degree-level training, because they would not need to support the costs and infrastructure of research. This is particularly the case if ITPs were ineligible for research funding that was designed to support degree-level research, such as the PBRF. Providing there was equality in teaching funding, the ITPs would not be disadvantaged, and would support sub-degree, vocational training and practical education. There is an urgent need in New Zealand to support strongly qualifications in skilled trades.

Question: how can TEC promote a stronger regional focus of ITPs?

By encouraging partnerships with local major industries, e.g. tourism, hospitality, forestry, fertilisers, building, and fisheries, the training needs of these industries may be met by the ITPs. To promote such partnerships, there could be a funding instrument along the lines of a dollar-matching partner-funding model, including input from the local industries, for specialist industry-focussed standards of education. The incentive for the industries would be effective sponsorship of trainees in their businesses, while the incentive for the ITPs would be extra revenue from both local industry partners and government. The human capital investment processes would need to be within the rules of New Zealand's trade agreements, or couched in a way that did not appear to be 'industry subsidies'.

Question: how can the goals of regionally-focussed ITPs be balanced with a provision for e-learning.

Many regions have widely spread communities for which distance learning would be advantageous. The notion that e-learning would take away from a regional focus of ITPs is not necessarily true. E-learning need not have strong incentives, since the investment in e-learning can potentially have very strong returns, particularly if investment in computing technology/IT and learning resources are matched by investment in marketing (nationally and internationally). However, these resources have potentially short shelf-life and the costs of quality maintenance are on-going; so continued investment is necessary. The practical nature of ITPs

will necessarily limit their focus on e-learning as people, at some stage, will need practical training in a real, rather than virtual, environment.

Colleges of Education

The discussion document suggests that secondary school teaching would be improved with closer integration between education research and teacher education. The current trend whereby colleges of education are merging with universities suggests that integration is happening, but there is no evidence that this is for any more than economic reasoning, i.e. whether the teacher standards are improving as a result of these mergers. Teacher education is specialised and relates strongly to teaching practise, rather than knowledge. That is, all the teachers are not, and do not need to be, experts in the range of sociological research findings relating to teaching, childhood development, memory development, neuroscience, or the theories behind the teaching practise. However, all teachers should maintain a high level of teaching quality that reflects current knowledge of best practice. Universities will also better provide an intellectually inquiring and stimulating environment to lift the trainee-teacher's aspirations.

Question: What arrangements will ensure that pre-service teacher education and professional development is enhanced by research

Teaching college 'lecturers' should be well-learned, and informed by research, but teacher trainees need not have such close links to research. If teaching college lecturers were also involved in research, then their ability to relate high quality teaching practise to teacher trainees may be enhanced. However, it is worth noting that in the recent past when such lecturers were not involved in much, if any, research, the quality of teaching education has still been high.

Question: How can this research reflect key issues raised by teaching practise?

There should be closer linkages (e.g. during in-service teacher training sessions), between teachers and lecturers involved with education research, so that current teaching practise issues may be fed back to the research planners. For example, at workshops the research needs or gaps could be addressed, so that the ongoing training of teachers would involve a feed-back loop that reveals the research needs of the industry.

On a similar but separate issue, it would be useful for an additional provision for teachers to carry out action research that would benefit their specific subject areas; an example being the Royal Society Teaching Fellowships in Science and Technology, whereby teachers practise authentic scientific and technological research to enhance their understanding of their own subject areas.

Industry Training Organisations

How can the government's goals of greater collaboration between ITOs be further enhanced?

Remove competitive funding systems, incentivise funding for collaboration among ITOs, and develop strategies in an open process, to be fair to all players. For example, having one national standard (of training or practice in an industry) should be promoted, if this one fits the needs of industry; rather than having several standards which confuse employers, or create unnecessary competition. Support for collective standards can include incentives or facilitated discussions between those who promote different standards / qualifications. The people in industry need to be core to the discussions regarding the qualification standards that meet their (industry) needs.

How can the goals of greater industry training coverage be advanced?

To get buy-in from industry, we need to ask what's in it for industry? ITO service expansion needs strategies to expand and increase services with minimal hassle by industries while serving their needs. The ITOs must have strong consultative powers with small and medium enterprises, if we are to increase the employer interaction with the Industry Training network.

How can ITO-polytechnic-university collaboration be promoted?

The notions relating to 'economic transformation via industry clusters' is not based on sound evidence, so we do not really see the logical necessity for such collaborations between the different types of TEOs. The flow-on linkages between career structures and training structures through various TEOs may assist in lifelong learning. If we are to find needs for collaborations, we must look to the margins of training, e.g. the cusp of degree versus vocational, or technical versus basic-skills, to see where collaboration between the education providers is required.

Specialist Colleges

What criteria should TEOs need to meet before they can be considered for recognition as a specialist college?

In addition to the list on page 23 of the discussion document, we would add:

- Quality of college governance – is it run for the national good?
- Aims of college to achieve STEP.

- Industry linkages – i.e. are the qualifications meeting the needs of the specialist industry with regards to quality standards, and is industry recognising the qualifications?

Dual sector TEOs

Should the ability to create 'dual sector' TEOs be created?

Considering the need for this discussion in the first place, i.e. that the distinctive contributions of tertiary sector organisations is not well known, clear or fully optimised currently, it would seem unnecessary to put in place a further tier of complexity. The quality standards are clear when the sector is divided, and the needs of learners may not be the central motive of TEOs when they decide to expand in such a way.

If dual sector institutions were allowed, then both the degree – research linkages would need to be secure and the vocational – practise linkages would too. The evaluation of qualification standards would be made more difficult, and there would need to be separation of data for reporting, to maintain the separation of evaluation of degree quality and sub-degree training outcomes.

Workforce Training and Development

Question: how can the goal of a complementary system response to workforce training and development be advanced?

See response to questions about ITOs i.e. remove competitive funding systems, incentivise funding for collaborative strategies.

Other considerations

Questions: under what conditions should the TEC fund research training outside of the universities?

If TEC is serious about defining the roles of the different TEO types, then it should not generally fund research training outside the universities. This is a point of difference that enables clarity of roles of different TEOs and endorses the degree-level quality standard of universities.

It is necessary however, to be realistic and recognise the caveats:

- where industry has identified a strong need that is not supported by university research training, or where university training is of poor quality, insufficient or considered irrelevant by universities, (such as fisheries research, currently performed by research associations; or vocational research see below);

- where the research is non-academic, i.e. strongly related to vocational studies, (an example topic might be, for example, the levels of risk aversion of industry trainees in high risk jobs such as mountain guiding or diving – it may be a social-science topic, but university social sciences departments may not recognise the need to perform the research, and it might be integral to the training performed at a polytechnic);
- where there is a need to create national human capital (as required by FRST contracts) within a Crown Research Institute (which has the principal source of specialist capability) and where the training is performed jointly with a university.

What arrangements will best ensure a sufficient breadth and depth of research training programmes in Kaupapa Maori and other areas of significance to Maori?

This question depends on what is meant by 'sufficient'. This term could be applied to all areas of research, and the answer would be to 'add funding'; (e.g. how much funding is 'sufficient' to identify, and taxonomically classify, all the biota in New Zealand?) A 'sufficient' breadth and depth of research training could be recognised as that which seeks to understand and recognise Maori tikanga in all areas, as well as providing evidence to support policies that relate to improving outcomes for Maori where they are currently lacking (for example in social status, health, equality). In addition, the depth of research training programmes could be recognised whereby the Maori research programmes were able to be further developed with well qualified people waiting in the wings to perform the work.

Question: does the current legislative research requirement for undergraduate degrees support or hinder the development of a responsive and relevant tertiary education system?

This requirement supports the current quality and breadth of degree-level qualifications. The need for well qualified people demands a high quality of teaching. This can be assured when the teachers are immersed in that field and where it is in their interest to provide high quality teaching, because they perform research in the field. Thus, the interdependency of research and teaching is founded on solid ground. It comes back to the quote of Professor Paul Callaghan in the Transit of Venus speech, that those who are teaching need to be the ones who wrote the books, not those who just read from them. There would be no quality control of the latter and the degree level integrity would be lessened.

Question: Should alternative regulatory arrangements be considered for undergraduate degrees? if so what sorts of arrangements?

No. If it is a degree, then it should be of a sufficiently high standard to require the lecturers to be performing research too. Otherwise it should be called another vocational qualification. There are plenty of names for these, e.g. certificate, diploma, etc. Why would the New Zealand universities want to be pumping out ever increasing numbers of students with degrees if the qualifications themselves could be taught by a computer, or robot? Does this achieve the special learning environment necessary for high quality and high level qualifications? While it is possible that certain information can be learned in a distance format (e.g. e-learning), we think that the international integrity of degree-level programmes necessarily requires a level of understanding that is best taught, in person, by people who are performing research or close to those performing research.

In the current environment it is better to have strong signals to demonstrate the domains of the different tertiary education types. It is more important than ever to maintain a credible system, and to make sure that tax-payer funded education programmes are indeed that – educating people.

Summary

The Royal Society of New Zealand recognises that times change and that the education sector needs to keep up with the changes of educational needs among government, society and businesses. However, there are some things that should not change,. One of these is the high standard with which a degree-level education is regarded. The other is the connection between degree-level education and research. These have been the domains of universities and the point-of difference that has outlined the distinctive contributions that universities make to tertiary education.