

Executive Summary

Ako Aotearoa has approached our submission on this issues paper through a teaching and learning lens; our main focus has been how well our tertiary education system supports the best possible outcomes for learners. We have considered other aspects of the system, such as TEO business models and financial sustainability, the position of research, the education labour market and the like, only inasmuch as they influence or impact on learner outcomes.

Consequently, we see the question of how well the tertiary education system supports new models as intrinsically linked to how well it supports quality practice. Innovation is not a goal in its own right, but rather a method of ensuring that learners have the best possible opportunities to achieve the best possible outcomes.

The key points in our submission are as follows:

- Given the diversity of the tertiary education sector, we caution against attempting to establish ‘one size fits all’ recommendations for the sector. What does or would potentially work well for one part of the system may cause significant problems for learners in other parts.
- Understanding system performance needs to be driven by an evaluative approach in which specific key features such as accessibility or effectiveness for Pacific learners are analysed in detail using a variety of information sources, rather than through basic headline measures.
- We believe that the tertiary education system could be more strategically steered, with greater reference to the Tertiary Education Strategy and more use being made of Investment Plans as strategic development instruments rather than simple funding contracts.
- Although we broadly agree with the characterisation of the education system, we believe that it is more appropriate to refer to ‘Industry’ than ‘Employers’, and urge the Commission to revise the model to recognise the position of communities as well as the intended non-labour market outcomes of the system. We also recommend that the Commission recognise the position of ‘Skills Utilisation’ within its supply and demand model.
- We note that engagement with industry and other stakeholders varies significantly across the system, with programmes in some areas being explicitly driven by relevant occupational and industry requirements. Notably, effective industry and stakeholder engagement is a key component of NZQA’s quality assurance framework – building on this could be a useful approach for encouraging greater stakeholder engagement across all parts of the sector.
- We see active learner engagement within TEOs and system governance as being the most effective method of ensuring that our education system responds to learner needs, and believe that organisations should make more effective use of the learner voice.

- Although good quality information for learners is important, our system's priority should be on developing the career management skills and competencies that allow learners to make effective, properly-informed decisions about their future.
- While evidence for the impact of student fees on learner decision-making is mixed, we believe that associated costs (such as accommodation, childcare, and transport) are likely to have a greater impact on decisions to enrol with a TEO and remain in study. Notwithstanding the Commission's Terms of Reference, we note that discussions of changes to fees and price-setting cannot reasonably take place without consideration of student financial support arrangements.
- What makes for good 'teaching' is highly context-dependent. Across all levels and settings, however, it involves continuous reflective professional practice. We believe that the system's support and requirements for such practice can and should be strengthened, and recommend investigating a professional accreditation framework for tertiary educators.
- Although we see research-informed teaching as a key characteristic of universities, and do not support the creation of 'teaching' universities, we also do not believe that there is an inherent link between research activity and teaching quality. For this reason we recommend amending s253B(4)(a) of the *Education Act 1989* with regard to degree programmes.
- We also believe that the PBRF has created tensions between research and teaching activities, and believe that there is merit in investigating better system and organisational incentives for improving teaching. As well as considering implications for the PBRF itself, these would include ensuring that all TEOs have clear career frameworks that reward excellent teaching and afford this role genuinely equivalent status to research.
- We have evidence of significant practitioner-level innovation in the tertiary education system, but barriers appear to exist in translating such innovations to areas outside their point of origin. This is at least in part the result of funding systems that appear to discourage the organisational risk-taking inherent in innovation, and moving to a funding model based on capability development and 'value add' may be more effective at encouraging innovation. Although dedicated funds can encourage innovative practice, it is important that the design and operation of such funds is linked to genuine organisational priorities, involves ongoing follow-up with funded organisations, and thereby drives sustainable change.
- We note that NZQA's framework for organisational quality assurance is designed to (though not always perceived to) encourage innovation and stakeholder responsiveness. We believe that there are potential lessons here for university quality assurance arrangements. The new environment for sub-degree qualifications is still in a 'bedding-in' phase, and it is therefore currently unclear what impact that may have on innovation. We would, however, support moves toward a more 'capability'-based qualification approach such as that advocated by Fullan & Scott (2014) and Scott (2015).
- We support the ongoing internationalisation of education, with the caveat that TEOs (particularly TEIs) should not become reliant on international income for their viability.
- Technological change will clearly have a considerable impact on the education sector – both in terms of new opportunities and in creating issues to which the sector must respond. It is important that TEOs respond strategically to such change, and in this respect we direct the Commission to the e-Learning Maturity Model developed by Marshall *et al.* (2012).
- Increased demand for upskilling, re-credentialing, and micro-credentialing may not represent a significant operational challenge at TEO and practitioner level, particularly where effective RPL

processes are already in place. These trends will, however, likely require changes to policy settings in areas such as system priorities, recognition of prior learning, financial support, funding rules, and performance monitoring.

In closing, we would like to commend the Commission on the quality and breadth of the issues paper. We thank the Commission for the opportunity to make this submission, and would be pleased to meet with commissioners and inquiry staff to discuss any points raised within it.

Introduction

1. Thank you for the opportunity to comment on the issues paper prepared for the Productivity Commission's inquiry into new models of tertiary education.
2. As the National Centre for Tertiary Teaching Excellence, Ako Aotearoa's mandate is to support the best possible outcomes for all learners in tertiary education. We do this through supporting change projects that lead to sustainable benefits for learners, providing professional development, and leading discussion in the sector on key strategic issues. Our focus lies across the entire tertiary system, from postgraduate research degrees to fundamental skills and 'second-chance' learning, and involves all aspects of tertiary education that support good learner outcomes.
3. We commend the Commission for the quality and breadth of this issues paper. The tertiary education system is highly complex, and the Commission has done an excellent job of providing a balanced overview of many of the main issues and areas of concern in the sector. We also appreciate the Commission's broad definition of what it considers new models for the purpose of its inquiry – including that it encompasses effective use of 'old' models.
4. Given our focus, we have approached this submission through the lens of teaching and learning, and consequent impacts on learner outcomes. We have considered other aspects of the tertiary education system, such as TEO business models and financial sustainability, the position of research, the education labour market etc. only inasmuch as they impact on learner outcomes. Similarly, we see the question of how well the tertiary education system supports new models as intrinsically linked to how well it supports quality practice. Innovation is not a goal in its own right, but rather a method of ensuring that learners have the best possible opportunities to achieve the best possible outcomes.
5. Many of the specific issues raised in the Commission's issue paper are complex enough that they could support inquiries in their own right. Due to this and the scope of the issues paper, rather than answer each of the Commission's questions in turn we have taken a thematic approach to this submission. To assist with the Commission's analysis, however, we have noted where material discussed in a given paragraph relates closely to one or more of the questions posed in the issues paper.

The Tertiary Education System

Continuing to support a diverse system with better articulation and clear purposes

6. A key reason for our tertiary education system's complexity is its diversity. This diversity exists not only in terms of the organisations involved and their fundamental purposes, but also within the learner body: preparedness, goals (that may or may not be well-defined), and possible study situations differ significantly both between and within different parts of the sector. A small regional PTE focused on community development operates in a very different environment, draws on very different staff, has very different goals, and serves learners with very different characteristics, than a large, urban, research-driven

university. Disciplines vary considerably as well; areas with a strong vocational focus such as building and construction, accounting, nursing, or law, have different types of incentives, expectations, and stakeholders than those such as political science, botany, or matauranga Māori.

7. We support New Zealand’s integrated approach to tertiary education. In our view, this integration emphasises the point that the tertiary education system should be designed primarily to reflect learner needs. These needs will change over time for many learners, and an integrated system (at least in theory) better supports articulation and lifelong learning through different levels and areas of study. It also embodies the principle of commonality, and that different parts of the tertiary education sector should collaborate and learn from each other in order to meet these needs. We also note that internationally there is increased blurring of traditional divisions between ‘higher’ and ‘further’ education, as well as a trend towards connecting-up education systems. We would therefore strongly oppose moves to recreate previous divisions between parts of the system, and believe that links across traditional sub-sector boundaries should be improved to better support learners. For example, there is a clear scope for improving inter-TEO pathways and articulation, such as access to university programmes for graduates from professional health and engineering programmes at other providers.
8. However, as the issues paper notes there are numerous examples where strong sub-system differentiation still exists in practice. For example, universities maintain their own quality assurance process, degree- and higher-level qualifications are subject to different regulatory processes than sub-degree qualifications, and industry training is funded through a separate model to other parts of tertiary education. We do not see this as necessarily a problem, but rather as an example of our integrated system being flexible enough to balance overarching alignment with the need to recognise the specific situation and requirements – or ‘distinctive contributions’ – that exist within particular parts of the system.
9. Given this diversity, we anticipate that the Commission will receive a wide range of feedback on both the issues raised in the paper and possible ways forward, and would generally caution the Commission against attempting to establish ‘one size fits all’ recommendations in its final report. Such recommendations are often – consciously or not – based on treating one part of the system (e.g. degree study at universities) as the ‘default’ context or experience, when what does or would potentially work well for one part of the sector may cause significant problems for learners in another part.

Question
1

Questions
1, 26

Questions
1, 30

Context-specific performance evaluation is necessary to reflect all learners’ needs

10. As an example of recognising diversity, we do not believe that there can be one single set of measures that describes how well ‘the system’ is doing, other than at the most simplistic level (e.g. input measures such as participation rates, and output measures such as completion rates). Simple global measures, although useful for basic system monitoring, are likely to mask significant

Question
1

variation and can be misleading in what they represent.¹ Furthermore, it is important to understand how a given measure relates to wider trends or characteristics of an area. For example, in a highly cyclical industry it may be desirable to continue significant training during down-cycles (when demand for qualified workers is low), so as to avoid skill shortages during up-cycles.

11. Simple measures or analysis can be particularly misleading when applied to marginalised or under-served learners. For example, Māori have the highest rates of participation in tertiary education; in 2014 14.7% of the (age-standardised) Māori population engaged in tertiary education, compared to 11.4% of Pacific, 9.9% of Pakeha, and 8.2% of Asian New Zealanders (Ministry of Education, n.d.a). However, most of this enrolment occurs at foundation levels; in 2014 approximately 52% of Māori tertiary learners were enrolled in Level 1-3 Certificates, compared to 43% of Pacific, 26% of Pakeha, and 19% of Asian learners (Ministry of Education, n.d.b). This suggests that high participation by Māori – an apparent indicator of success – may actually reflect issues in our compulsory education sector’s capability to serve young Māori.²

Questions
1, 53

12. In our view, understanding system performance needs to be driven by an evaluative approach, in which specific key features (e.g. “how well does our system support the needs of Pacific learners?”, “how accessible is our system?”) are identified and analysed in detail using a range of relevant information sources. As a learner-centred organisation, we believe that these features are best framed in terms of what learners need and want from their education, both in terms of the learning experiences provided and their outcomes on successful completion.

Question
30

13. We do note that the Commission’s Terms of Reference have driven a TEO- and system-based approach to the inquiry, rather than a learner-focused approach.³ The inquiry’s core question appears to be “why is the system supporting or not supporting change?” rather than “why is the system meeting or not meeting the needs of learners?”. Although these two different questions will often lead to the same answer, they can also lead to significant differences in how issues, problems, and potential solutions are framed.

14. One example of this is that the issues paper has largely omitted the area of transitions and learner pathways; i.e. how well our system supports different groups of learners to move successfully from secondary to tertiary education, how TEOs are responding to the introduction of *Vocational Pathways* etc. However, this area is a critical element of a well-functioning

Questions
53, 54

¹ For example, as the issues paper implies (pp33-34), good employment outcomes do not necessarily represent a well-functioning system if people are not being employed in industries and roles relevant to their qualifications.

² A corollary of this is that if our compulsory education sector starting working better for Māori, then participation rates in tertiary education might fall as the need for these ‘second chance’ programmes decreased.

³ We recognise and strongly support the Commission’s identification of learners as a specific stakeholder group in its description of the education system, rather than simply conflating their interests with TEOs and/or industries. We also strongly support the Commission’s decision to include ITOs in its inquiry, despite the Terms of Reference directing it to focus purely on providers (Tertiary Education Institutions and PTEs).

education system. It is particularly important for Māori and Pacific learners who are often not well-prepared for further study by our secondary school system, and many of whom are the first in their whānau to engage in education (particularly higher education). Models such as the University of Auckland's MAPAS scheme or the University of Otago's Tū Kahika programme (both developed for health sciences students) are notably successful examples of dedicated support structures for these learners.

Achieving strategic direction through partnership

15. We do not agree that the Tertiary Education Strategy (TES) constitutes a significant 'Top-Down' control instrument. The TES provides a high-level statement of what the Government wishes to see the system achieving, and frames the purpose statement of government agencies. However, this does not necessarily translate into organisational change at TEOs; in our experience the level to which it is used to actually direct practice and outcomes is low and there is scope for *more* strategic direction in the system. For example, we see little evidence that the priority given to Pacific success in the Strategy has resulted in agencies clearly steering TEOs to take actions that will improve performance for Pacific learners. Questions
22, 23, 24

16. We do agree with the Commission's view that top-down architecture can reduce the ability of organisations to innovate, especially when this dictates in specific detail how TEOs must operate. We thus would not support a more explicitly directive/ prescriptive approach to the TES. However, we would encourage consideration of how it can be used more effectively as a steering instrument in partnership with TEOs. Questions
22, 23, 24

17. Currently, steering the system appears to rely mainly on responses to target-based sanctions (and some positive incentives). Although these are helpful in directing TEOs to meet specific numeric targets, they can encourage gaming and 'working to the measure' rather than genuinely addressing the underlying issue that measure is intended to represent.⁴ We believe that such targets need to be accompanied by more active engagement between government agencies and TEOs, with the goal of producing initiatives and changes that will reflect priorities in the TES. This may include additional targeted investment tied to specific priorities, and we are pleased to note that the TEC appears to be exploring this option. Questions
22, 24

18. In this sense we are surprised that the issues paper largely omits discussion of investment plans with TEOs as a lever for steering the system, folding that into a brief mention of s.159L funding mechanisms. The intent of these plans under the mid-2000s *Investing in a Plan* funding model was that they would be negotiated strategic documents that managed funding to support priority outcomes and development of the TEO, the organisation's 'distinctive contribution' within a network of provision, and government priorities. In practice, they appear to have largely become passive funding contracts that simply outline deliverables Questions
22, 24

⁴ For example, offering low value but easily-completed programmes to increase completion rates for target learner groups.

to be achieved by a TEO. We believe that there is potential for these Plans to be used more effectively as genuinely strategic documents, and Investment Managers to take a more active partnership role in supporting the future development of TEOs.

19. In this context, and recognising that any public funding system will involve a series of approximations, we would question whether funding via the micro (i.e. course) level has any real value in driving the funding system. A funding approach recognising or based on value-add may be more appropriate. We note again that moving to a more aggregated funding approach was one of the intentions of *Investing in a Plan*.

Question
7, 68

Supporting a comprehensive education system requires recognising all stakeholders

20. The paper's description of the stakeholders that participate in the tertiary education system is broadly accurate, but we note that the description of 'employers' in Figure 3 and elsewhere in the paper would be more accurately represented by the term 'industry'. Employees, regulatory and professional bodies, customers/clients etc. are also part of an industry and have a strong interest in the operation of the education system – one that can be at odds with individual employers.⁵

Question
17

21. Industry engagement with tertiary education differs noticeably throughout the sector, and while in some areas engagement is low, in others it explicitly drives programme content. For example, many education programmes in health, law, accounting, engineering etc. are explicitly built around registration requirements, accepted international standards, accreditation arrangements etc. Most obviously, our industry training system is the closest New Zealand has to a Collective Skill Formation model (Busemeyer & Trampusch, 2012). ITOs are intended to act as bridges between the worlds of education and work; although they are education organisations, they are industry 'owned' and until the recent reforms possessed a statutory skills leadership role for their industry.

Questions
17, 19, 20,
21, 32, 33,
52

22. Worth highlighting with regard to industry engagement, and specifically to the lack of a 'productivity dividend' for New Zealand identified in the issues paper,⁶ is that the list of assumptions on p33 neglects the concept of skill utilisation. In broad terms, focusing purely on the supply and demand relationship assumes that firms can generally be relied on to make the optimal use of skills to which they have access, and usually have an accurate understanding of their skill development needs. Incorporating skills utilisation into the supply and demand model, however, means accepting that this is not always the case. Building on this, the skills ecosystem model posits a role for the education sector not

Questions
17, 21, 29,
32, 33, 52

⁵ For example, an employer may be interested primarily in highly specific training related directly to a particular job, while employees and industry bodies have a stronger interest in graduates possessing more transferable skills. This is an example of the free riding and collective action issues identified on pp20-21 of the paper.

⁶ It is worth noting that this lack of a productivity dividend from education is not unique to New Zealand, and there is good reason to suspect that other factors, such as management capability or labour market policy, play a significant role in enabling education to affect productivity at both national and firm-level (see, for example, CFE (2008), Huffmann (2000), Keep *et al.* (2006), Keep & Mayhew (2010)).

simply in supplying skills, but also in assisting industries to recognise the types of skills and capabilities in which they should be investing, and then to use those skills most effectively. In our view, the skills ecosystem concept presents a strong example of what a high performing education-industry relationship looks like.⁷

23. We also note that the issue paper’s characterisation of the overall tertiary education network (whichever term is used for the ‘world of work’) is relatively narrow and risks treating tertiary education as simply part of a labour supply chain.⁸ The issues paper only briefly touches on the role of the education system in addressing social exclusion, sustainability, cultural development, support for new migrants etc. which internationally are seen as core purposes of tertiary education.⁹ The paper also only acknowledges in passing the intrinsic value of tertiary education, such as developing an understanding of one’s culture, society, and society. We therefore recommend that the Commission instead consider the system as including “industries and communities”, and place greater weight on considering the interests and position of communities in tertiary education.
24. Explicitly including communities as part of the system not only better recognises the range of education stakeholders (and particularly the purpose of Adult and Community Education), but also opens up the scope of potential new models for the tertiary education sector. For example, regional ITPs are well-placed to be regional development hubs, and TEOs can provide resources for schools and secondary learners (through both formal initiatives such as trades academies, and less formal arrangements such as access to staff or learning infrastructure). Conversely, structures such as iwi radio stations or community organisations can be used to improve accessibility or provide mutually beneficial learning opportunities.¹⁰
25. It is worth noting that engagement with stakeholders outside education – industries, communities, and others – is explicitly built into NZQA’s current Self-Assessment and External Evaluation and Review quality assurance regime. One of the Key Evaluation Questions used here is how well programmes and activities match the needs of both learners and other stakeholders; organisations are expected to develop processes for identifying and responding to stakeholder needs, and their performance in this regard is externally evaluated.

Question
52

Questions
17, 50

⁷ For discussion of skills utilisation and skills ecosystem concepts, see for example CFE (2008), Dalziel (2012), Payne (2007), Skills Australia (2011), Warhurst & Findlay (2012), and Wright & Sissons (2012).

⁸ We particularly note that the issues paper’s discussions of the purpose of tertiary education on pp28-29 does not refer to the *Tertiary Education Strategy 2014 – 2019* (MBIE and Ministry of Education, 2014), which defines what the Government expects the system to achieve – including social outcomes, environmental outcomes, and explicit protection and development of Māori language, culture, and mātauranga Māori.

⁹ This is the case even for strongly employment-focused education; see for example, Chakroun (2015) and UNESCO’s recently signed *Recommendation concerning technical and vocational education and training* (UNESCO, 2015). Notably, the German vocational education approach – whose ‘dual system’ is commonly cited as a world-leader in VET models – is built around vocational education that involves developing citizenship capabilities as well as work-related skills (Euler 2013; Brockman *et al.* 2013).

¹⁰ For example, Windle *et al.* (2016) describes a successful ‘brown bag clinic’ pilot for senior pharmacy students, in which learners enter a community with high pharmaceutical use and (under supervision) provide members of that community with advice on their medications.

Learner Voice and Decision-Making

An enhanced position for active learner voice

26. In our view, the learner voice is a key vehicle for ensuring and enhancing TEO quality, and one that we believe should be strengthened. Our joint work with NZUSA on this topic (see Heathrose Research, 2013) sets out our views on this area in detail. In brief, we see active learner engagement with organisational processes and governance as being far more likely to improve quality than passive student evaluation models.¹¹ This engagement can be particularly important for ensuring TEOs become more responsive to Māori and to Pacific learners. It is also critical that learner voice is heard not only within TEOs, but also in policy development and system governance.¹²
27. In our view, the leading international example of good practice in this area is the model used in Scotland, and we would support moves toward such a model in New Zealand. This approach combines formal requirements for organisations to involve learners in institutional decision-making with an agency – Student Partnership for Quality Scotland (sparqs) – that trains learners and supports organisations to effectively use the learner voice to enhance quality. This model is predicated on strong representative structures, but in our view this is a virtue: weak student representation structures lead to commensurately weak incentives for TEOs to respond to learners’ needs.

Question
16

Questions
16, 52

Better support for learner decision-making

28. Although the quality and availability of information for learners has received significant attention in recent years, in our view focusing on data is less useful for young people than focusing on learner *decision-making*.¹³ Specific data sources and sets are often problematic for or irrelevant to the position of the individual learner. For example, they may relate only to young learners, are often historical rather than representing the situation a learner will actually experience, or may relate only to short-term outcomes.
29. Moreover, learners are not always well-placed to make sense of and understand the significance of data when it is available. Notably, such data may be competing for learners’ attention with aspirational marketing campaigns of TEOs that emphasise ‘best possible’ results, such as outcomes for one or two exceptionally-talented and high-performing graduates. This can be a particular issue for learners and communities who have lower levels of pre-

Question
2

Questions
2, 8, 54

¹¹ For discussion of how student evaluations can be used effectively, see Stein *et al.* (2009).

¹² The term ‘learner-centred’ is a common rhetorical device in tertiary education, but we are not convinced that it is always followed through in practice. For example, the Sector Reference Group for TEC’s new *Investment Approach* to funding includes no student or trainee/employee perspectives.

¹³ It is worth noting that ‘information-processing’ models of student decision-making, including the Hossler & Gallagher model used by Leach & Zepke and referred to in the paper, emphasise the role played by social capital and interpersonal influences. According to these models, the types of data focused on through initiatives such as the *Employment Outcomes of Tertiary Education* work might be very useful for policymakers and organisations, but are less relevant to the actual way in which learners make decisions.

existing educational capital and are less well-positioned to make sense of the range of information with which they are presented. For example, feedback from our Pacific Caucus is that some Pacific communities feel that they cannot fully trust information that TEOs provide to learners, as they assume that this will be intended to serve the organisations' interests over those of the prospective learner.

30. Focusing on developing career management skills and competencies that support decision-making is therefore likely to be more practically useful to learners. This would involve enabling learners to identify what information is relevant to them, make sense of that information, and then make realistic choices on the basis of that within the context of a broader career pathway that meets their goals and needs. This has been a particular focus of our work on support for foundation learners (Educational Attainment Working Group, 2012; Ako Aotearoa, 2014), and we supported its inclusion in the graduate profiles and outcomes for the new Foundation and Bridging Qualifications.

Question
2

31. Active support for learner decision-making can be achieved in multiple ways. One method of doing so would be through a brokerage approach: an independent agency (such as Careers NZ) tasked to actively consult with prospective learners about their career goals and capabilities and then place them within appropriate programmes. The work of Skills Development Scotland provides one example of how this can work with regard to vocational education, while a centralised admissions process – accompanied by effective integrated career guidance and support – might be valuable for degree-level education. The Finnish model is one of the strongest international examples of guidance systems, involving active 'wrap-around' support for young people from early teenage years, formal qualifications for career professionals, and an assumption that such support should be easily available throughout a person's lifetime.

Questions
2, 52

Ensuring tertiary education remains accessible

32. We suspect that the availability of student loans, the necessity of tertiary education qualifications in the modern labour market, and low levels of financial literacy amongst young people mean that the *direct* impact of fees on whether young people choose to engage in tertiary education may be small (beyond choosing which TEO to enrol with).¹⁴ Actual evidence for the impact of fees is mixed. For example, the Baxter (2012) study cited in the issues paper noted international evidence that participation in education declines as costs increase – particularly amongst communities with lower incomes – and Zepke & Leach's (2005) review found that cost was identified as a particular barrier for under-represented communities. However, Baxter (*ibid.*) also found that the majority of participants in her study would choose to increase student loan borrowing rather than drop-out if fees increased significantly, and in

Questions
37, 38

¹⁴ It is worth noting that the price of an education programme is generally based around cost of delivery, not the actual benefit accrued by the learner (which is not only often unclear at point of 'purchase', but depends on a very wide range of factors). Input-based forms of obtaining private contributions, such as student fees, can thus lead to significantly over- or under-charging learners for the actual benefit they receive from their education. Outcome-based approaches, such as graduate taxes, can address this point and lead to a 'fairer' private contribution, but raise their own issues.

New Zealand increased costs to learners from the 1990s onward have occurred alongside increased participation. On balance, it appears likely that fee levels play a limited role in the decisions of the 'average' student, but are a more significant factor for debt-averse learners such as older adults or those from lower income communities.

33. Where we do believe that study costs may affect participation and retention decisions is in associated costs, such as accommodation, childcare, transport and the like. These costs are not felt equally by all learners, and are more likely to be relevant for students from traditionally under-served communities or populations. Although TEOs can receive equity funding to help provide support structures for some students (Māori, Pacific, and learners with disabilities) this funding goes to the organisation rather than to an individual learner. Question
37
34. Given that tertiary qualifications are now required to access most 'good' jobs rather than being optional as in previous generations, we would be concerned if fees and the overall cost of studying did play a significant role in students' study decisions to study. We recognise that the Commission's Terms of Reference explicitly direct it away from considering issues around student financial support, but discussion of potential changes to pricing and fee-setting cannot occur without discussion of potential changes to financial support arrangements. It is critical that education is both affordable at the initial point of entry, and does not create a significant financial burden over the longer term. Questions
37, 38
35. This issue is particularly important for communities from under-represented groups, such as Māori, Pacific, and learners from lower socio-economic communities, who may be more reluctant to take on debt and/or may experience lower returns than those from other communities.¹⁵ We are specifically aware of ongoing concerns amongst our Māori stakeholders over the long-term effect on learners of abolishing the Manaaki Taura scholarship programme in the mid-2000s. Questions
37, 38, 53

The Position and Status of Teaching¹⁶

Defining and supporting high quality teaching

36. Teaching is clearly the most critical element of the tertiary education system, and the activity that all other activities should support. We also strongly agree with the Commission's statement that (good quality) learning is co-produced by both learner and educator, and not simply passively consumed. In the context of this issues paper, it is worth explicitly noting that implementing new models – for example, changes to business models, staff and contract management, or technologies – must be explicitly designed to support the improvement of teaching and learning.

¹⁵ For example, Mahoney (2014) found that significant income gaps developed over time between Māori and non-Māori graduates. Although the income premium from gaining qualifications was higher for Māori than non-Māori, this reflected the generally lower income profile of Māori compared to non-Māori (i.e. this ethnicity-based income gap is even greater between populations without qualifications).

¹⁶ 'Teaching' in this context encompasses the range of activities involved in directly supporting and evaluating student learning. It includes assessment, programme design, mentoring and training etc.

37. As the Hénard and Roseveare framework cited in the issues paper recognises, institutional factors can have a significant effect on teaching practice and TEOs have a responsibility to create an environment in which educators can practice effectively and learners have the best possible chance to succeed. One important negative trend in this regard is the replacement of specialist Māori staff positions with general positions; Potter & Cooper (2016) found that not only is this becoming a widespread practice, but it has had significant negative effects on Māori staff and learners. Questions
14, 53
38. It is also, however, important to explicitly note that the corollary of this is that the operation of macro-level system structures has impacts on teaching practice through effects on these institutional factors. For example, when a government agency decided to reduce a TEO's public funding, this does not simply affect that TEO's bottom line but can have a direct impact on the organisation's ability to support quality teaching and thus outcomes for learners. It is important that decision-makers carefully think through the likely repercussions of their actions, and how these may affect the ability of organisations and practitioners to deliver or arrange effective education. Questions
39, 72
39. As the paper notes, the specifics of what makes for quality teaching are context-dependent. Key elements of such contexts include the level and nature of the programme (good teaching in foundation education looks different to good supervision of research degrees), the setting and pedagogical approach (good classroom-based teaching looks different to good distance teaching), and the nature of learners (good teaching for new migrants looks different to good teaching for professionals on a post-experience programme). Ako Aotearoa has supported an extensive array of projects and good practice exemplars that discuss and describe good practice in different contexts.¹⁷ Questions
14, 54
40. Given these differences, the common element of high quality teaching is engagement in continuous reflective professional practice. A good educator is able to recognise the context of a given teaching situation, understand what this means for the best way to engage with learners to achieve necessary outcomes, and then adapt their practice accordingly. Question
14

The need to formally recognise and credential teaching capability

41. In our considered view it is critical that TEOs supports professionalised teaching practice, and that educators and education providers have the necessary capabilities to understand and adapt to what makes for good teaching in their context. We believe that our system currently only weakly recognises this. There are two significant issues here. Firstly, setting base standards defines a threshold of acceptability to which all learners are entitled. Secondly, establishing a Questions
12, 14, 15

¹⁷ We have begun collating the findings from our projects in a series of synthesis reports, each of which relates to a particular area of tertiary education. To date these cover Pacific learners (Alkema, 2014), the health workforce (Alkema, forthcoming), learning in the workplace (Alkema & Macdonald, 2014), and e-learning (Marshall, forthcoming).

framework allows for career progression based on teaching capability and elevates the status of teaching – this is particularly relevant for practitioners and organisations expected to engage in research alongside teaching.

42. Currently, specific support for and requirements to demonstrate teaching competence are largely *ad hoc*, usually being left to arrangements at individual providers.¹⁸ This often leads to teaching capabilities not being appropriately valued in some parts of the system. As the issues paper notes, our *Taking Stock* report (Ako Aotearoa, 2010) identified significant variation between providers regarding formal teaching qualification requirements. In Sutherland’s (2013) survey of early-career academics at New Zealand universities, only 30% of participants had or were working toward an education qualification, and the opportunity to gain such a qualification was seen as of little value by participants.¹⁹

Questions
12, 14, 15

43. Formalising and accrediting teaching capability in the tertiary sector can take many forms, from compulsory formal qualifications (as in TEC’s requirements regarding funding eligibility for foundation education programme), to more voluntary arrangements based on agreed standards for internal teaching support and professional development activities. We strongly believe that there are merits in investigating a common professional accreditation framework for tertiary practitioners, and are currently actively supporting work in this area. Two notable international frameworks informing this work are the Australian University Teaching Criteria and Standards Framework (AUTCAS, n.d.) and the United Kingdom Professional Standards Framework (Higher Education Academy, 2011).

Questions
14, 52

An effective Research-Teaching Nexus

44. The issues paper raises the question of the ‘bundling’ of research and teaching activities. In our view, research is a central component of the university education environment; we agree that this is the core element that collectively distinguishes the universities from other types of provider. Moreover, our integrated system means that there is no need to create a separate class of teaching universities; the ability of ITPs, Wānanga, and PTEs to offer degree and postgraduate education means that there already exist ‘teaching-led’ organisations offering advanced qualifications. Allowing such organisations access to the term ‘university’ may be useful for their branding or marketing strategies, but would have no meaningful benefits for learners or other stakeholders.

Question
11

45. It is well understood that there is no automatic relationship between research activity and the quality of teaching; organisations looking to achieve this synergy need to be active and strategic in how they support the research-teaching nexus. In this vein, we see the requirement within s.253B of the *Education Act 1989* that degrees be taught “mainly by people engaged in

Questions
11, 67

¹⁸ Note that some external accreditation bodies may have teaching-related requirements.

¹⁹ Sutherland did, however, find that possession of a teaching qualification significantly increased participants’ confidence in teaching.

research” as of questionable value. There is a very strong argument for requiring that the postgraduate programmes referred to in this section are taught or supervised by research-active staff (especially given that these programmes usually include research components). However, we agree with the position of the Tertiary Education Advisory Commission (2002) that at degree-level, the necessary characteristics of the educator are that they have both a deep and current knowledge of their discipline and the skills to effectively communicate this knowledge.²⁰

46. If it is necessary to define a degree in terms of who teaches it (rather than in terms of graduate outcomes or content), changing the Act to reflect these characteristics would both recognise *de facto* practice (the ‘mixed model’ referred to on p14 of the issues paper technically being an apparent breach of the Act) and reflect that in modern academia the quality of teaching practice should be considered as important as the quality of research. Such an amendment should follow TEAC’s lead and clearly emphasise the importance of teaching skills at degree level. Alternatively, a legislative connection between bachelor degrees and research activity could be addressed though describing the context rather than practitioners – e.g. replacing s.253B(4)(a) for degrees with a requirement such as “is taught mainly in a research-informed education environment”.

Questions
11, 67

47. We do have concerns that the Performance Based Research Fund (PBRF) has created tension between the relative priority given to teaching and research at universities (and other participating TEOs), in which the clear financial benefits attached to PBRF performance often make research the winner.²¹ This may partly be the result of the PBRF quality evaluation operating at the level of the individual academic; it is possible that a discipline/unit-based approach (as used in Australia’s *Excellence in Research for Australia* system) might allow more space for staff within those units to balance teaching and research roles.

Question
11, 12

Recognising wider capabilities

48. The issues paper rightly notes that there are increasing demands for addressing non-cognitive skills/ core competencies in tertiary education. This has implications for design and assessment, in that TEOs are increasingly being asked to explicitly cultivate these qualities through their programmes.²² It also will require TEOs to consider how these qualities can be attested to, and we are aware that some TEOs are currently piloting methods for this – including new Records of

Questions
33, 34

²⁰ Of course, as TEAC noted, one of the clearest ways to demonstrate deep and current knowledge is through being an active researcher in that field.

²¹ Examples of this include staffing decisions giving more weight to current or likely PBRF ratings rather than evidence of teaching ability (especially near to an evaluation period), or staff with excellent teaching records facing employment sanctions due to low research outputs. The PBRF also encourages researchers to focus on ‘pure’, discipline-specific research (which has potential for greater PBRF returns), rather than applied research such as that into teaching and learning within their discipline.

²² It is worth noting that in many cases these non-cognitive skills do not actually represent or reflect new occupational requirements. Increased attention to them in qualifications may be part of a trend for the education sector to be expected to provide skills have traditionally been seen as the responsibility of firms to develop (see Keep and Payne, 2004).

Achievement that include both academic results and evidence-based evaluation of wider capabilities.

49. We do note, however, that the ability of this trend to resolve the ‘signalling’ issue identified in the issues paper is questionable. To use the paper’s example, the ability of a degree to signal the capabilities of its holder has not decreased from 1991 to 2013; instead more people (presumably) possess the capabilities signified by a degree. A record of achievement that includes additional qualities may extend this principle, as these additional capabilities simply become additional position requirements for applicants and graduates still need to find ways to distinguish themselves from others with similar records.

Question
33

Enabling Innovation

Translating individual innovation to organisational innovation

50. In our experience, there is currently a significant amount of teaching innovation occurring in New Zealand’s tertiary education system. As our Good Practice Publications, the evidence portfolios for our Tertiary Teaching Excellence Award nominees, outputs from our project fund and contracted work, and presentations at our strategic fora illustrate, there are practitioners trialling and implementing innovative teaching models throughout all parts of our system. Claims that our tertiary sector as a whole is culturally averse to innovation are not borne out by empirical evidence.
51. Where barriers do appear to exist is in the transmission and uptake of innovation outside its point of origin. In our experience, innovations commonly fail to spread not just between TEOs and sectors, but often within organisations as well. This suggests that barriers to innovation operate primarily at the meso- and macro-level (i.e. departmental and organisational, and at policy/system level) rather than at the micro level of practitioners and programmes.
52. Part of this may be a simple communication issue, with practitioners and organisations not being aware of new approaches being trialled or implemented in other parts of the system. We see addressing this issue as a core part of Ako Aotearoa’s role, realised through both our professional development programme and our strategic forums, and these do appear to be improving awareness of new models.²³ However, improved communication and awareness are of little value if the system does not incentivise or enable action.

Questions
49, 59, 60

Questions
59, 62, 63

Questions
59, 60, 62,
63

²³ In the case of our forums, for example, as well as specific cases of speakers being invited to present to other attendees’ organisations, forum participants are generally optimistic regarding the likelihood that these events improve practice (e.g. in 2016 feedback surveys, 81% of respondents for the NZ VET Research Forum and 85% for the Pacific Tertiary Education Forum identified that content was likely or very likely to influence their future approaches in relevant areas).

53. In this regard, a significant potential barrier to innovation lies in the nature of our funding system, which can (or at least is perceived to) penalise attempts to innovate. Innovation often involves an element of risk – even models that have worked successfully elsewhere can fail when implemented in a new setting. However, New Zealand TEOs operate in a relatively high-stakes funding environment. Essentially, innovation involves accepting the possibility of ‘failure’, and yet we have a funding and monitoring system that discourages risk-taking because the stakes of potential failure can be high. Micro-level innovation still occurs, as this is often driven by individual practitioners’ interest and commitment to delivering high quality education. However, the willingness of others to trial and adapt these new models can be reduced because of possible repercussions and sanctions if these initiatives are not successful. This is particularly so when strong competition exists for resources within an organisation or organisations are operating with tight financial margins (as in many TEOs).

Questions
59, 62, 63,
68

54. Part of the logic of a performance-linked funding system is that it will lead to new models of activity, on the basis that organisations will invest in these in order to improve performance and thus receive more funding (or, more commonly, to avoid losing funding).²⁴ In practice, however, performance-based funding can reduce such incentives. Rather than work to improve a low-performing course, in many cases it is more rational from a TEO’s perspective to simply stop providing a low-performing course or programme rather than expend the resources to attempt improving it.²⁵ Conversely, there are few incentives to change a programme or qualification that is performing well on the specific measures used to rate performance are reduced, even if in other respects that programme might not be truly fit for purpose. Similarly, performance-based funding creates incentives for organisations to focus on recruiting learners that are already likely to succeed, rather than to invest in increasing the success of learners from communities with lower retention and completion rates (including Māori, Pacific, and part-time learners).

Questions
59, 62, 63,
68, 71

A funding approach that encourages innovation

55. As discussed earlier more strategic use of Investment Plans, built around a developmental and ‘value-add’ approach to funding, may be one method for encouraging organisations to innovate. Dedicated funding pools can also provide assistance for addressing some of these barriers. Our impact evaluation process has identified both our National Project Fund and our Regional Project Hub Fund as leading to significant benefits for both learners and staff (see Weir 2014 and Weir *et al.* 2014). Similarly, the previous Industry Skills Leadership fund led to initiatives such as the then-Electricity Supply ITO’s *Women in Power* (later renamed *Ultimit*) programme, and (via the *Workforce 2020* initiative) to the development of *Vocational Pathways*.

Questions
60, 63, 65

²⁴ Such a funding approach contrasts with a capability development approach in which funding is specifically directed to improve quality in low performing areas.

²⁵ Anecdotally, such decisions were a notable contributor to the apparent improvement in TEO performance following the TEC’s introduction of Educational Performance Indicators (EPIs).

56. Conversely, our impression is that the Encouraging and Supporting Innovation Fund (ESIF) did not lead to any significant, sustainable new models of delivery. This may have been due to projects within the ESIF supporting ‘nice to have’ projects rather than being tied to genuine strategic or organisational priorities. It also may have been due to a lack of follow-up on the part of the funder, with the ESIF simply being designed to achieve funded outputs rather than ensuring that those outputs translated into sustainable innovative outcomes.

Question
64

57. Funding pools are most likely to have an impact when organisations do not simply see them as an additional funding source, but rather as a method of achieving specific organisational goals.²⁶ For effective fund development, this means considering not just appropriate selection criteria, but the actual way in which the fund operates. For example, Ako Aotearoa’s funding approach emphasises partnership: organisations applying to us are required to co-fund projects through direct financial contribution or in-kind support such as subsidising staff time and resources. This ensures that organisations have a stake in the outcome of the project beyond simply accessing income, and makes it more likely that funded projects connect to genuine potential for change within and across TEOs.

Questions
60, 63

58. Moreover, our involvement with funded work does not cease with the formal end of the project. Not only are applicants to our funds required to identify dissemination strategies in their proposals (which must include discussion of how these will create impacts for learners and practitioners), but we continue to work with teams following completion in order to disseminate and extend their work – including through incorporating project outputs and findings into our Professional Development programme. Ako Aotearoa does not passively supply funding for ‘promising ideas’, but actively works with teams to realise the potential of those ideas.

Question
60

A quality assurance approach that encourages innovation

59. In contrast to current funding arrangements, we note that NZQA’s approach to quality assurance is explicitly designed to create an environment that encourages new models and approaches to delivery. This approach has moved away from an audit-based ‘tick-box’ model focused on specific processes and criteria, and instead emphasises that organisations should develop approaches to education that respond to the needs of their stakeholders (including learners, industries, and communities).

Question
50

60. In this regard, NZQA’s SA & EER model balances top-down control with the flexibility to innovate and respond. The agency establishes broad expectations, individual organisations (and units within those organisations) then identify how those should be expressed and implemented in their context, and NZQA then evaluates how effectively the TEO has done this. Although

Question
50

²⁶ Note that a distinction should be drawn here between ‘strategic’ funds primarily linked to specific system goals (such as increasing innovation or improving practice) and researcher-driven ‘blue sky’ funds primarily intended to support high quality ‘basic’ research.

engagement with this model has varied, the basic approach is based on encouraging and facilitating new models of education practice.²⁷

61. In this context, we question the value of maintaining highly separate quality assurance arrangements between the university and non-university parts of the system. The NZQA model – while not perfect – appears to be more in tune with current thinking about understanding and analysing performance than the current model used in the university sector. In particular, the SA & EER approach is based around achieving outcomes, and the need for all elements within a TEO to understand how they know they are achieving those outcomes. We believe that the university sector would benefit from a quality assurance approach aligned more closely with that used by NZQA.²⁸

Question
26

Innovation and qualifications: opportunities in the new pre-degree environment

62. Given NZQA's Review of Qualifications (RoQ) process for sub-degree qualifications, it is unclear to what extent programme and qualification processes will support or hamper innovation in the future.²⁹ In theory, the focus on outcomes under the new model should provide greater flexibility for TEOs to innovate, but we have yet to see how this will work in practice.

Question
67

63. The emphasis on outcomes in the new qualifications environment may be beneficial in encouraging a shift toward 'capability'-focused assessment. We are concerned that parts of the system may currently be over-focused on competency-based approaches. Such approaches can have the virtue of close alignment with industry demand, as programme content often corresponds to performing specific tasks and roles within firms. However, they can also lead to organisations (including NZQA) investing heavily in developing extensive arrays of very specialised Standards for highly specific skills, many of which may see little use and will often relate to *current* industry requirements, rather than preparing people to work and live in future environments. In contrast, capability-focused approaches such as those advocated by Fullan & Scott (2014) and Scott (2015), focus on developing flexible sets of abilities within a particular disciplinary or industry field.³⁰

Question
67

Future Trends

64. There are a wide range of trends that will impact on the future of tertiary education in New Zealand, although not all of these will be felt equally or expressed in the same way across all parts of the sector. For example,

Question
46

²⁷ Our case study work in partnership with NZQA (Ako Aotearoa & NZQA, 2013) provides examples of how organisations have successfully engaged with this new model.

²⁸ Note that we are not advocating that AQA be merged into NZQA. Rather we believe that there are benefits to be gained from better alignment between the different models used by each agency.

²⁹ In our view the uncertainty created by the Review process itself has likely discouraged some innovation, as many TEOs have experienced extended periods where they have not known the future expectations or requirements of post-RoQ qualifications.

³⁰ Embedded approaches to developing adult literacy and numeracy can be thought of as an example of a capability-based approach.

'micro-credentialing' is often cited as likely to become more popular in the future (Elliott *et al.*, 2014). As an approach that emphasises recognising specific knowledge or skills, this may be more challenging for TEOs used to 'traditional' programme design, than organisations such as ITOs whose practices are already based around assessing competence against specific Unit Standards.

65. We firmly believe that increasing internationalisation is a positive element of New Zealand's education system, but we do accept the associated risks outlined on p69 and the ethical dimension noted on p68 relating to the purpose of the education system (although this dimension is more relevant to public institutions than the PTE sector). In our view, these dangers become significant only if large parts of the system – particularly TEIs –become reliant on international income to remain viable. We are, however, aware of concerns in the tertiary sector that we may be approaching or are already at this point. Questions
28, 44
66. Technological development has always been a strong driver of change within education. We appreciate the commission's recognition on pp64-66 that the novelty of new technologies can lead to the scale of their potential impact being overstated, and that it is important to consider whether some learners may be disadvantaged by increased use of new technologies.³¹ However, it is clear that new technologies will create new educational opportunities. Question
43
67. Given this, it is vital to ensure that technology is fit-for-purpose and reflects the nature of a programme and the learners within it. For example, using technology to better support distance or rural provision may involve moving to a fully online model, or it may involve establishing multiple video-linked classrooms. Greater use of online resource provision or in-class technology (such as rapid response 'clicker' technology) within a traditional lecture setting can be just as much an example of innovative practice as launching a MOOC. The core point is that it is the educational goals that drive the adoption of new technology, rather than greater technology use being an end in itself. Question
43
68. A further important implication of accepting that technological change will create new education models is considering both how to support the transition to those models. For example, an educator who excels in existing face-to-face settings may not have the capabilities to practice as effectively in an online setting. If their programme is forced to move to full online delivery without support for them to develop the necessary skills for that mode, then both the practitioner and learners will lose out from the transition. Question
43

³¹ For example, in the 2013 Census almost a quarter (23%) of New Zealand households did not have access to the internet at home, rising to a third of rental households and 40% of households earning \$50,000 or less (Statistics New Zealand 2015a; 2015b). In contrast, over 90% of households that earned over \$100,000 per year had such access. Increased use of new technology needs to take account of such apparent 'digital divides'.

69. What is critical then, is that organisations take a strategic approach to investing in and implementing new learning technologies. It is vital that TEOs understand what their learners genuinely want and what technologies suit their programmes, and also that they understand how they as an organisation and their practitioners will need to adapt to use these technologies effectively. In this context, we direct the Commission to Marshall *et al.* (2012). This work, supported through our National Project Fund, explored the success factors behind significant technological changes at TEOs, through application of an e-Learning Maturity Model that emphasises understanding organisational readiness for change.

Question
43

70. As the issues paper notes, technological change is also likely to increase demand for upskilling and re-credentialing (including the micro-credentialing noted earlier). The extent to which this will require changes for the education system at TEO or practitioner level is unclear. After all, one of the foundations of New Zealand’s 1989 ‘Learning for Life’ reforms was to enable lifelong learning, and in 2014 ‘young’ learners (i.e. under 25) made up fewer than half of learners at sub-degree levels. More likely, this will require changes to government policy settings in areas such as financial support, funding rules, TES priorities etc., to ensure that the system is accessible for and evaluates its performance with regard to older learners. This also suggests that our system will also need to pay more attention to Recognition of Prior Learning (RPL), both in terms of TEO approaches to RPL and how funding and regulation creates barriers or incentives for TEOs in this regard.

Questions
35, 46, 72

Conclusion

71. Fundamentally, New Zealand’s diverse body of learners needs a tertiary education system that is much more *explicitly* geared toward enabling all of them to make the most of opportunities offered by an uncertain future. This does not mean that there are not existing examples of excellent practice to be found in our system already; our sector includes organisations, practitioners, and models that are not just world-class, but in some cases world-leading. Collectively, however, we need more focus on understanding and responding to specific learner needs, and enabling learners to continue learning over their lifetime.

72. Technological change has made content more accessible and opened up new models of practice, but innovation is not simply about more use of ICT. Nor is it about change for change’s sake. Learner-centred innovation involves developing and supporting models of education – including modes of teaching, approaches to assessment, and support for different learning settings – that are driven by what works best for learners, not organisations or policymakers. The best practitioners in the sector already take such an approach – sometimes despite the incentives in our system. Our policy and funding settings need to recognise this and actively encourage and enable TEOs to foster deliberately inclusive, future-focused education programmes at all levels and in all areas.

73. In conclusion, we would like to thank the Commission once again for the opportunity to provide input to this inquiry. We would be very happy to discuss any aspects of the points or recommendations in this submission with commissioners and/or Commission staff.

Ako Aotearoa
May 2016

References

- Ako Aotearoa. (2014). *A Foundation For Progression: Graduate profiles for Level 1 and 2 qualifications*. Wellington: Ako Aotearoa.
- _____. (2010). *Tertiary Practitioner Education Training and Support: Taking Stock*. Wellington: Ako Aotearoa.
- Ako Aotearoa & NZQA. (2013). *Case Studies in Self-assessment*. Wellington: Ako Aotearoa & NZQA. <http://www.nzqa.govt.nz/providers-partners/self-assessment/make-self-assessment-happen/tools-and-resources/case-studies-in-self-assessment/>
- Alkema, A. (2014). *Success for Pasifika in tertiary education: Highlights from Ako Aotearoa-supported research*. Wellington: Ako Aotearoa.
- _____. (forthcoming). *Educating Health Practitioners: What Works? Highlights from Ako Aotearoa-supported projects*. Wellington: Ako Aotearoa.
- Alkema, A., & McDonald, H. (2014). *Learning in and for work: Highlights from Ako Aotearoa-supported research*. Wellington: Ako Aotearoa.
- AUTCAS. (n.d.) *Australian University Teaching Criteria and Standards Framework*. Office for Learning and Teaching. Retrieved from <http://uniteachingcriteria.edu.au/>
- Baxter, R. (2012). Sharing the Private and Public Costs of Tertiary Education: Do University Students Know How Heavily Their Education is Subsidised and How Would Increases in Course Fees Change Their Study Behaviour?. *New Zealand Policy Quarterly*, 8(2), 48-53
- Brockmann, M., Clarke, L. & Winch, C. (2008). Knowledge, skills, competence: European divergences in vocational education and training (VET)—the English, German and Dutch cases. *Oxford Review of Education*, 34(5), 547-567.
- Busemeyer, M.R. & Trampusch, C. (2012). The Comparative Political Economy of Collective Skill Formation. In Busemeyer, M.R. & Trampusch, C. (Eds.). *The Political Economy of Collective Skill Formation*, pp3-38. Oxford: Oxford University Press.
- CFE. (2008). *Skills Utilisation Literature Review*. Glasgow: Education Analytical Services, Lifelong Learning Research, Scottish Government. Retrieved from <http://www.gov.scot/Resource/Doc/254849/0075479.pdf>
- Chakroun, B. (2015, October). *Skills for Work and Life: UNESCO's vision for Technical and vocational education and training (TVET)*. Keynote address to the New Zealand Vocational Education and Training Research Forum, Wellington. Retrieved from <https://ako.aotearoa.ac.nz/download/ng/file/group-4/skills-for-work-and-life---chakroun-kn1.pdf>
- Dalziel, P. (2012). *Regional Skill Ecosystems to Assist Young People Making Education Employment Linkages in Transition from School to Work*. Lincoln: Lincoln University. Retrieved from

https://researcharchive.lincoln.ac.nz/bitstream/handle/10182/5266/Dalziel_Regional_Skill_Ecosystems.pdf?sequence=1

- Educational Attainment Working Group. (2012). *Lifting Our Game: Achieving greater success for learners in foundational tertiary education*. Wellington: Ako Aotearoa.
- Elliott, R., Clayton, J., & Iwan, J. (2014). Exploring the use of micro-credentialing and digital badges in learning environments to encourage motivation. In B. Hegarty, J. McDonald, J., & S-K. Loke (Eds.). *Rhetoric and Reality: Critical perspectives on educational technology. Proceedings of Ascilite Dunedin 2014* (pp. 703-707). Retrieved from <http://ascilite2014.otago.ac.nz/files/ascilite2014proceedings.pdf>
- Euler, D. (2013). *Germany's Dual Vocational Training System: A model for other countries?*. Gutersloh: Bertelsmann Stiftung. Retrieved from www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/GP_Germanys_dual_vocational_training_system.pdf
- Fullan, M., and Scott, G., (2014). *New Pedagogies for Deep Learning Whitepaper: Education PLUS*. Collaborative Impact: Seattle. Retrieved from <http://www.michaelfullan.ca/wp-content/uploads/2014/09/Education-Plus-A-Whitepaper-July-2014-1.pdf>
- Heathrose Research. (2013). *Student Voice in Tertiary Education Settings: Quality systems in practice*. Wellington: Ako Aotearoa & NZUSA.
- Higher Education Academy. (2011). *United Kingdom Professional Standards Framework*. York: Higher Education Academy. Retrieved from www.heacademy.ac.uk/sites/default/files/downloads/ukpsf_2011_english.pdf
- Huffman, W.E. (2000). *Human Capital, Education, and Agriculture*. Iowa University Economic Staff Paper Series. Paper 341. Retrieved from http://lib.dr.iastate.edu/econ_las_staffpapers/341
- Keep, E. & Mayhew, K. (2010). Moving beyond skills as a social and economic panacea. *Work, Employment and Society*, 24(3), 565-77.
- Keep, E., Mayhew, K., & Payne, J. (2006). From Skills Revolution to Productivity Miracle – Not as easy as it sounds?. *Oxford Review of Economic Policy*, 22(4), 539-59.
- Keep, A. & Payne, J. (2004). 'I can't believe it's not skill': The changing meaning of skill in the UK context and some implications. In Hayward, G., and James, S. (Eds.). *Balancing the Skills Equation: Key issues and challenges for policy and practice*, pp53-76. Bristol: The Policy Press.
- Mahoney, P. (2014). *The outcomes of tertiary education for Māori graduates: What Māori graduates earn and do after their tertiary education*. Wellington: Ministry of Education. Retrieved from https://www.educationcounts.govt.nz/__data/assets/word_doc/0004/147244/The-outcomes-of-tertiary-education-for-Maori-graduates.docx

- Marshall, S. (forthcoming). *e-Learning in Tertiary Education: Highlights from Ako Aotearoa Projects*. Wellington: Ako Aotearoa.
- Marshall, S., Suddaby, G., Higgins, A., Gunn, C., Ronald, G. ... & Laws, M. (2012). *Understanding and Supporting Organisational Change in e-Learning*. <https://ako.aotearoa.ac.nz/organisational-change-e-learning>
- Ministry of Education. (n.d.a). *Age-Standardised Participation Rates*. https://www.educationcounts.govt.nz/__data/assets/excel_doc/0008/16289/Participation-Rates-2007-2014.xlsx
- _____. (n.d.b). *Provider-Based Enrolments*. https://www.educationcounts.govt.nz/__data/assets/excel_doc/0006/76659/Provider-based-Enrolments-2007-2014.xlsx
- Payne, J. (2007). *Skills in context: what can the UK learn from Australia's skill ecosystem projects?*. SKOPE Research Paper no. 70. Cardiff: Centre for Skills Knowledge and Organisational Performance. Retrieved from <http://www.skope.ox.ac.uk/wordpress/wp-content/uploads/2014/04/SKOPEWP70.pdf>
- Potter, H., & Cooper, L. (2016). *Project Whitestreaming: A report on the generalising of Māori specialist staff positions in the tertiary education sector*. Wellington: TEU. Retrieved from <http://teu.ac.nz/wp-content/uploads/2016/03/20160314-Project-Whitestreaming-Report-FINAL.pdf>
- Scott, G. (2015). *Transforming Graduate Capabilities and Achievement Standards for a Sustainable Future: Key insights from a 2014-2015 National Senior Teaching Fellowship*. Circulated draft.
- Skills Australia. (2011). *Skills Utilisation Literature Review*. Canberra: Skills Australia
- Statistics New Zealand. (2015a). *2013 Census QuickStats about transport and communications*. Retrieved from <http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-transport-comms.aspx>
- Statistics New Zealand. (2015b). *2013 Census QuickStats about transport and communications - Tables*. Retrieved from <http://www.stats.govt.nz/Census/2013-census/profile-and-summary-reports/quickstats-transport-comms.aspx>
- Stein, S.J., Spiller, D., Terry, S., Harris, T., Deaker, L., & Kennedy, J. (2009). *Using Student Evaluations to Enhance Teaching Practice: Closing the loop*. Wellington: Ako Aotearoa.
- Sutherland, K. (2013). *Success in Academia? the experiences of early career academics in New Zealand*. Wellington: Ako Aotearoa
- Tertiary Education Advisory Commission. (2002). *Shaping the Funding Framework*. Wellington: TEAC
- UNESCO. (2015). *Recommendation concerning technical and vocational education and training (TVET)*. Retrieved from http://portal.unesco.org/en/ev.php-URL_ID=49355&URL_DO=DO_TOPIC&URL_SECTION=201.html

- Warhurst, C. & Findlay, P. (2012). *More Effective Skills Utilisation: Shifting the Terrain of Skills Policy in Scotland*. SKOPE Research Paper No. 107. Cardiff: Centre for Skills Knowledge and Organisational Performance. Retrieved from <http://www.skope.ox.ac.uk/wordpress/wp-content/uploads/2014/04/WP107.pdf>
- Weir, K. (2014). *Enhancing tertiary teaching and learning through Ako Aotearoa-funded project work: Part 1. Collated results of Impact Evaluation Framework conversations about National Project Fund projects completed from November 2009 to November 2013*. Wellington: Ako Aotearoa
- Weir, K., Thomson, R. and Coolbear, P. (2014). *Enhancing tertiary teaching and learning through Ako Aotearoa-funded project work: Part 2. Collated results of Impact Evaluation Framework conversations about Regional Hub Project Fund projects completed from June 2008 to November 2013*. Wellington: Ako Aotearoa
- Windle, J., Peterson, A., Braund, R., & Duffull, S. (2016). *Medicines Clinic – A novel opportunity for understanding health literacy*. <https://ako.aotearoa.ac.nz/medicines-clinic>
- Wright, J. & Sissons, P. (2012). *The Skills Dilemma: Skills Under-Utilisation and Low-Wage Work*. Lancaster: The Work Foundation, Lancaster University. Retrieved from http://www.theworkfoundation.com/DownloadPublication/Report/307_Skills%20Dilemma.pdf