

Submitter information

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Response from The New Zealand Qualifications Authority (NZQA) to the issues paper *Technological Change and the Future of Work*

Thank you for the opportunity to respond to your issues paper. We think it provides a valuable opportunity for NZQA to consider how to respond to the range of scenarios that it considers.

NZQA's vision is for the learners of New Zealand to 'Qualify for the Future World: Kia noho takatū ki tō āmua ao'. To achieve this we need to understand and respond to a global environment in which the nature and type of employment is expected to shift dramatically in the coming years. In meeting these evolving needs, employers require 21st century skills from their workforce and for those who complete their education to have up-to-date skills.

NZQA has a number of workstreams designed to respond to the challenges for learning and work in a rapidly changing world:

- a review of the New Zealand Qualifications Framework (NZQF), to ensure that it remains up to date and relevant in a changing world;
- using NCEA Online as the vehicle for developing digital assessment capable of meeting the current and future needs of learners, education providers, employers and society;
- identifying the key strategies Te Kōkiritanga 2017-2020 and Takiala Pasifika 2017-2020, and their programmes of work. These target Māori and Pasifika learner achievement in STEM subjects and are critical to ensuring success for Māori and Pacific learners and the providers that support them.

The NZQF review

The NZQF is the backbone of the education system and one of its key purposes is to enable and ensure relevant learner pathways and high quality provision. Qualifications need to meet the needs of learners and end-users, such as employers, by ensuring that the qualification conveys the skills, knowledge and attributes that a graduate has gained. Qualifications must meet the requirements of the NZQF in order to be listed on the framework and funded by the Tertiary Education Commission.

We consulted at the end of 2018 on four high level proposals for change. Two of the proposals are directly relevant to the themes discussed in the issues paper:

- Proposal 1: including a wider range of education products onto the NZQF
- Proposal 2: more explicitly embedding transferable competencies into the NZQF (communication, collaboration, critical thinking and citizenship)

As noted in your issues paper, NZQA has introduced micro-credentials into the regulated education and training system. Although micro-credentials are recognised by NZQA, they are not currently included on the NZQF. Proposal 1 above is intended to encourage life-long learning and provide greater clarity and information to stakeholders.

We agree that learners today will need resilience and adaptability to thrive and prosper (page 18 of the issues paper). Proposal 2 above is intended to ensure that learners have the transferable skills and competencies that employers are saying that they need now and for the future.

Both of NZQA's proposals above recognise that the digital economy and increasing automation will impact on today's learners. They will need the skills, competencies and capabilities to engage in meaningful work throughout their career and lives, through life-long learning opportunities.

NZQA will release a further consultation document in June this year, with more detail on our proposals.

NCEA Online and focus on Māori Pasifika achievement

NZQA is developing digital assessment capable of meeting the current and future needs of learners, education providers, employers and society in a world that is increasingly global, digital and connected (NCEA Online). Utilising new technologies available online and eventually available "anytime", NCEA Online will deliver assessments that reflect the digitally enabled teaching and learning increasingly used in New Zealand schools.

Over the period 2016 – 2018, 203 New Zealand secondary schools have taken part in NCEA Online in a range of subjects, including some offered at NCEA Levels 1-3 in successive years. Findings from the evaluation of each year's Trials and Pilots project have been used to inform the next year's, as we work towards having NCEA examinations online. Formal implementation starts with the delivery of 14 NCEA exam subjects on a long-term platform in 2019.

NCEA Online is designed to ensure students have credentials that accurately demonstrate the full range of their capabilities, particularly digitally enabled skills and knowledge, whether they choose to continue to further education or enter a digitally enabled workforce. In reference to Question 21¹, NCEA Online's focus on equity can help address the digital divide among groups identified as digitally excluded, such as Māori and Pasifika. That equity focus and NZQA's opt-in approach are together designed to ensure wide participation, drawing in learners who have so far not engaged confidently with the traditional external examination format, and encouraging schools to take part so that all students can benefit from this 21st century² approach to assessment.

With reference to Questions 5³ and 24⁴ in the issues paper, NCEA Online has potential to support schools in preparing all students for the future of work and the changing needs of industry. By

¹ Q21 What, if any, further measures are needed to address any digital divides in New Zealand?

² The 21st century approach refers to the assessment of higher level cognitive skills, interpersonal skills and intrapersonal skills, to align with teaching and learning for these skills and knowledge. Some higher level cognitive skills are already implicit in the NCEA Achievement Standards, and the approach to assessing these standards.

³ Q5 What policy objectives should governments pursue for the labour market of the future?

⁴ Q24 How well does New Zealand's education and training system reflect the changing skill needs of industry? Is the education and training system able to effectively respond to changing technology and different future [scenarios](#)?

increasing NZQA's ability to innovate in assessment, NCEA Online will further drive equity of access and outcomes⁵. Innovative digital assessment may see students developing and using capabilities and characteristics such as critical thinking, problem solving, collaboration, creativity and resilience for the achievement of their learning goals. For example, personalised learning pathways that include digital assessment have the potential to engage 21st century Māori and Pasifika students in new ways that allow them to demonstrate the full breadth of their skills and knowledge. Where NCEA Online credentials such as achievement, employers can have confidence that employees have the skills and attributes to meet their needs.

NCEA Online has relevance to the issue paper's Question 26⁶ and the ability of the education and skills system to support all workers' adaptation to technological change. To help prepare students for the modern workplace, all schools are expected to be teaching the Digital Technologies Hangarau Matihiko curriculum by 2020 as an integral part of the education system. NCEA Online both benefits from the drive to implement the new curriculum area and will contribute to the capabilities to support innovative assessment in this area.

Just as employers require 21st century skills from their workforce and for those who complete their education to have up-to-date skills, for their part, learners want to learn and build skills using technologies that are now ubiquitous in other areas of their lives. There is a focus on ensuring technology and services support the education system commitment to accelerating Māori and Pasifika learner success. NCEA Online includes student (and other) voices in co-designing a good quality digital assessment experience which reflects their digitally enabled learning environment and recognises the place and value of different cultural perspectives such as te ao Māori and mātauranga Māori and the total diversity of New Zealanders.

We would also refer the Commission to the following published papers which address policy areas relevant to technological change and the future of work:

- *A Commentary on Digital Futures and Education*, a report prepared by Professor Stuart McNaughton, Chief Science Advisor, Ministry of Education and Professor Sir Peter Gluckman, Chief Science Advisor to the Prime Minister, et al, March 2018
<https://www.pmcsa.org.nz/wp-content/uploads/18-04-06-Digital-Futures-and-Education.pdf>
- *Towards Digital Enablement: A literature review*, commissioned by the Ministry of Education, December 2017
<https://www.educationcounts.govt.nz/publications/schooling/towards-digital-enablement-a-literature-review>
- *Equitable digital access to the Internet beyond school: A literature review*, commissioned by the Ministry of Education, July 2018
<https://www.educationcounts.govt.nz/publications/schooling/equitable-digital-access-to-the-internet-beyond-school-a-literature-review>

⁵ Digital Assessment Vision: a design principles approach: <https://www.nzqa.govt.nz/about-us/future-state/digital-assessment-vision/>

⁶ Q26 How well equipped is New Zealand's education and skills system to support people to adapt to technological change over the course of their careers?