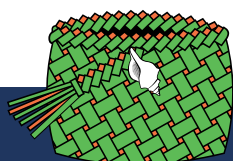


Context Review

Building capability in the foundation education sector

Prepared by Anne Alkema for Ako Aotearoa

June 2021



Nā āheitanga ā-mātauranga,
ko angitū ā-ākonga
Building educational capability
for learner success

Ako
AOTEAROA

This resource is part of a wider Adult Literacy, Numeracy and Cultural Capability (ALNACC) package that includes the following:

- Foundation Learning Professional Standards Framework – Tapatoru
- Capability Building Model
- PLD Modules
- ALN Effective Practice Model
- Collaborative Reflective Practice Model
- Hallmarks of Excellence for Māori and Pacific Learner Success
- ALN Practices Report
- Practices Self-report Tool
- Practices Checklist and Interview Tool
- Pacific Cultural Centredness Pathway
- Māori Cultural Capability Pathway
- Learner Agency Thinkpiece

Visit www.ako.ac.nz/alnacc for more information and to download all resources.

**Tertiary
Education
Commission**
Te Amorangi
Mātauranga Matua



This publication was developed by Anne Alkema as an output from Ako Aotearoa's Adult Literacy, Numeracy and Cultural Capability contract for the Tertiary Education Commission.

Published by

Ako Aotearoa
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June 2021



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Foreword

Poipoi te kākano kia puāwai | Nurture the seed and it will blossom

The Tertiary Education Commission has been supporting educational capability building in the foundation sector for many years. This has been instrumental in developing a world-class Language, Literacy and Numeracy (LLN) infrastructure alongside professional learning and development opportunities in Māori and Pacific cultural capability.

The infrastructure designed for educators has evidence-based programmes, tools and resources, including:

- The Literacy and Numeracy for Adults Assessment Tool
- The Learning Progressions for Adult Literacy and Numeracy
- Pathways Awarua
- The ALN Effective Practice Model and Capability Building Model
- Professional Learning and Development programmes
- The Foundation Learning Professional Standards Framework - Tapatoru
- Online Māori Cultural Capability and Pacific Cultural Centredness Pathways
- Learner agency research
- Communities of practice
- New Zealand Dyslexia-Friendly Quality Mark

The world of work is changing rapidly, due to technological, economic, environmental and demographic developments. This has caused a transformation in skills needs, which has been accelerated by the Covid-19 crisis. To navigate this fluctuating environment, learners need to be lifelong learners with transversal skills that are in

increasing demand in the labour market. These are skills relating to communication, teamwork, problem-solving, critical thinking, organisation, resilience, digital competencies and adaptability.

Educators will have to prepare their learners for the changing world of work, create learner-centred teaching and learning environments with diversified learning opportunities, and build the LLN skills that are key to developing their learners' transversal skills.

Educators themselves need to be lifelong learners to remain abreast of effective approaches for supporting their learners and keeping them engaged in learning. The most important factor in learner success is quality teaching. Educators need access to pathways to capability building that are flexible enough to suit the range of different roles, backgrounds and professional development needs in tertiary education and training.

We are pleased to present this report to you. The research-based, evidence-informed approaches to capability building it outlines will help build a capable foundation educator workforce that is prepared for meeting the challenges the future will bring.

We acknowledge the writer of this report, Anne Alkema, who has made an outstanding contribution to the field of literacy and numeracy research and educational capability building in Aotearoa New Zealand.

Mauri ora!



Annette van Lamoen
ALNACC Programme Manager
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Tumuaki | Director
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Table of Contents

Introduction	4
Review Approach	5
Background	5
The foundation educator workforce and markers of capability.....	7
Setting the direction for capability building in foundation education.....	11
Building the capability of the foundation education workforce	11
Formal Learning: Qualifications.....	11
Non-formal professional learning and development	13
Models of capability building through PLD	16
Credentiailling through digital badges.....	18
Drivers for capability building.....	21
Professional standards	22
What's happening internationally	22
Tapatoru: The Foundation Learning Professional Standards Framework	23
Conclusion.....	25
References	26

Introduction

This paper describes how in Aotearoa New Zealand we have looked to build the capability of the foundation educator workforce. The paper starts with a short description of the importance of competent educators and outlines what effective teaching looks like in the foundation education sector. Built from research, the approach taken to date shows educators need to: know the learners; know the demands of learning programmes; and know what to do to support learners in their learning development.

This is followed by an overview of capability building in the foundation education sector in Aotearoa New Zealand since 2007, when responsibility for this shifted from the Ministry of Education to the Tertiary Education Commission (TEC). This section of the paper considers the strategic direction set by government and the translation of this into formal (qualifications) and non-formal learning – also described as Professional Learning and Development (PLD) for educators. It also describes the most recent model that informs and supports capability building.

The paper concludes with a discussion on the role professional standards play in describing capability and how they can be used by educators. Included here is a description of ‘Tapatoru – Foundation Learning Professional Standards Framework’, which has been piloted by Ako Aotearoa. The trail of evidence in this paper shows the maturing of a foundation education sector that has taken time to get to where it is now. It builds from the premise that there are three broad factors contributing to educators’ capability – professional standards which describe capability; PLD which build capability; and professional learning communities which enhance and sustain capability. Figure One below shows how these aspects connect together in an iterative way (Smith & Te Rito, 2018, p. 4).

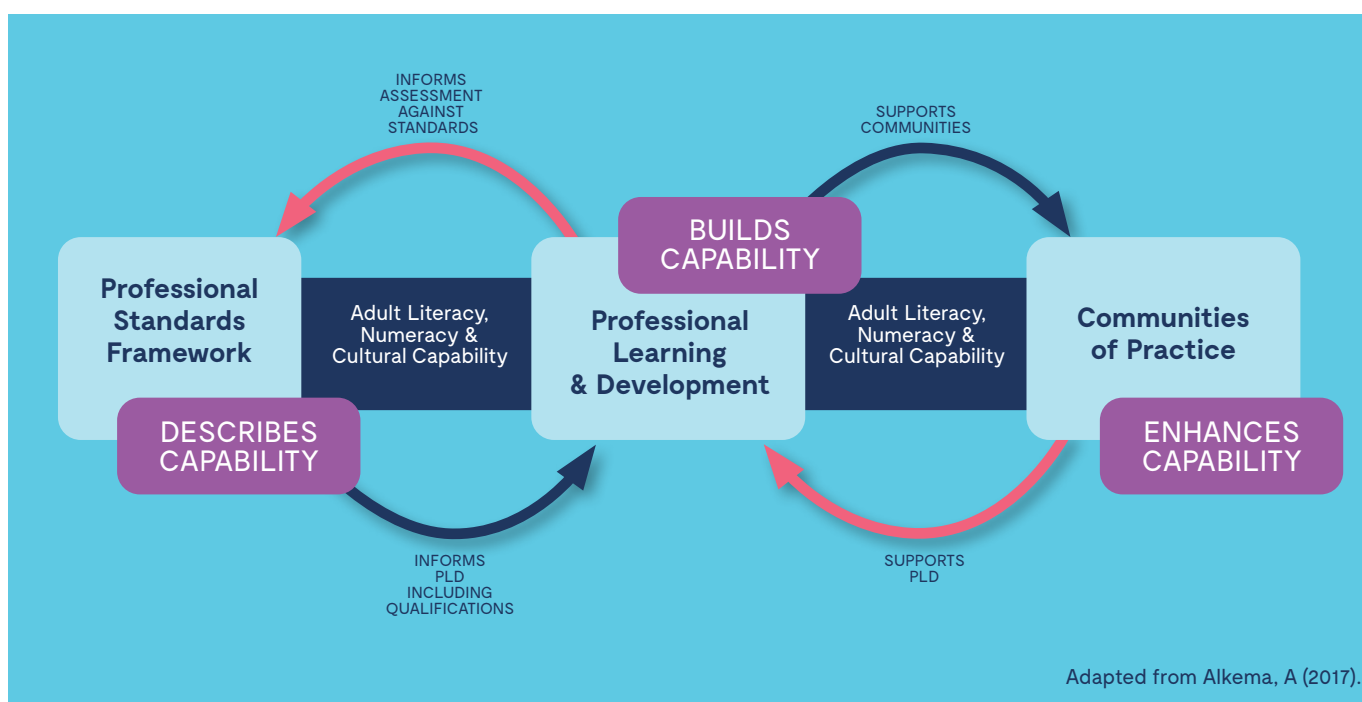


Figure One: A Coherent Capability Pathway

Review Approach

This review draws on national and international literature in adult literacy and numeracy¹; policy documentation; key informants, personal communications with others working in the field; participants in the Tapatoru trial; and my professional knowledge from working in this field. The literature includes evaluation, research, journal articles, policy papers, government strategy statements, and books that could be sourced electronically. It is limited to material written since 2000.

Once sourced, each piece of literature was keyword searched for information related to each aspect to be covered in this review. Following this the snowball method was used whereby the reference lists of publications were checked for additional sources.

Background

In Aotearoa New Zealand, the foundation education space, as it is internationally, is diverse (Gal, Grotlüschen, Tout, & Kaiser, 2020; Windsich, 2015). It includes those in the non-formal, pre-qualification levels, through to those studying at levels 1–3 on the New Zealand Qualifications Framework (NZQF).² Education settings for foundation learners include:

- community settings through Adult and Community Education (ACE)
- workplace settings for literacy and numeracy programmes and level 1–3 industry training qualifications
- Private Training Establishments (PTEs) for adult literacy and numeracy and some level 1–3 qualifications
- Wānanga for literacy and numeracy (English and Te Reo) and level 1–3 qualifications
- subsidiaries of Te Pūkenga level 1–3 qualifications.

For the most part, teaching occurs in face-to-face settings. However, the advent of COVID-19 saw some education providers shift to online provision and while most have fully returned to face-to-face, online provision remains an option for some (Alkema, 2020). With the exception of ACE, whose funding is derived from a range of sources (Chauvel, 2019), other organisations are mainly funded by the TEC.

Within these settings there are heterogenous groups of learners who range in age and ethnicities, who have generally been under-served by education systems, are less likely than other groups to seek out learning opportunities, and are often struggling to make their way in the world (Kerehoma, Alkema, Murray, & Ripley, 2019; OECD, 2019; Potter, Taupo, Hutchings, & McDowall, 2011; Reid & Schroder, 2019; Windisch, 2015). Foundation-level learners are often referred to as 'low-skilled'; but as the OECD (2019) points out, while these learners may have low literacy and numeracy levels, they have a range of other skills that are valuable in workplaces and communities.

¹ While Aotearoa New Zealand has oscillated between the terms literacy and numeracy (LN) and literacy, language and numeracy (LLN), 'language' has been omitted from this review given that language acquisition is a field of research and education in its own right.

² The definition of foundation learners varies. Benseman, Sutton and Lander (2003) included those studying at levels 1–4 on the New Zealand Qualifications Framework (NZQF). Ako Aotearoa (2014) included those at level 1–2 on the same framework. Alkema and McDonald (2018) worked from Ako Aotearoa's approach and included those at pre-qualification and levels 1–2 on the framework. Van Lamoen (2018a) included those at pre-qualification and levels 1–3 on the framework.

Foundation-level learners are an important group to reach and teach, given their vulnerability and the poor outcomes – social, economic and wellbeing – that accrue to people with lower skill levels (Alkema & McDonald, 2018; Bynner & Parsons, 2006; Gal et al., 2020; Ministry of Education, & Ministry of Business Innovation and Employment, 2016; OECD, 2019). They are also key to reach given the difference that foundation-level learning makes, particularly to social and wellbeing outcomes (Alkema & McDonald, 2018; Kerehoma et al., 2019; Vorhaus, Litster, Frearson, & Johnson, 2011; Windisch, 2015).

While the New Zealand Productivity Commission (2017) discussed in a general way the types of provision each of the sectors outlined above delivers, to date no work has been done in Aotearoa New Zealand to understand the foundation teaching workforce – for example, who they are, where they work, their qualifications. Coben, Kane, and Whitten (2017, cited in Winter, 2019) found this was the case for numeracy educators and Benseman (2014) notes this is the case generally for adult literacy and numeracy educators. This is in spite of this being called for by Benseman, Sutton, and Lander (2003).

One of the challenges for this sector, particularly those working in non-formal education, is that it is seen to sit outside the mainstream. Elfert and Walker (2020) call it a 'poor cousin' and note in relation to the adult literacy and numeracy sector that educators,

... have been associated with volunteer do-gooder grannies in cardigans, rather than professional teachers, and adult literacy has, by and large, existed outside the mainstream of education and its learners outside what is generally understood as the mainstream of society (2020, p. 111).

The diversity of learning settings combined with the heterogeneity of the learners highlights the complexity of determining what a capable educator workforce looks like, the competencies such a workforce should hold, and how those in this workforce might go about building their capability.

The foundation educator workforce and markers of capability

The compulsory education sector in Aotearoa New Zealand has a history of looking at what contributes to outcomes for learners and building educator capability (Alton-Lee, 2003; Hattie, 2003; Timperley, Wilson, Barrar, Fung, 2007). Hattie's (2003) meta-analysis of what contributes to students' achievement in the compulsory education sector shows there are six influences/influencers that impact to varying degrees: students; homes; schools; principals; peers; and teachers. Hattie found that the biggest school influencers are teachers who can account for about 30 percent of the variance in student achievement.

The answer lies ... in the person who gently closes the classroom door and performs the teaching act –the person who puts into place the end effects of so many policies, who interprets these policies, and who is alone with students during their 15,000 hours of schooling (Hattie, 2003, pp. 2-3).

While Hattie's research shows teachers account for 30 percent of the variance, Alton-Lee (2003) cites up to a 59 percent variance in student achievement being able to be attributed to the differences between teachers and classes. On the back of this, she makes recommendations for 10 quality teaching practices that contribute to student achievement. While actual teaching practice/pedagogy³ is one of these, Alton-Lee goes beyond this to look at aspects such as teacher expectations and inclusive teaching environments.

The capability of the school teaching workforce is underpinned by the requirement for teachers to have at least an undergraduate degree. However, there is no such requirement for tertiary teachers. As Suddaby (2019) notes,

... unlike the compulsory education sector, tertiary education providers haven't in the past been required to insist on pre-service training and attainment of a relevant qualification as a teacher prior to employment. In reality they have largely been unable to given that tertiary teachers' discipline knowledge base has generally been built up over years of focused practical experience or study and is usually the basis for their employment (p.42).

The compulsory sector is also guided by underpinning values – whakamana, manaakitanga, pono, and whanaungatanga, a code of professional responsibility and six standards for teaching (Teaching Council of Aotearoa New Zealand, n.d).⁴ These standards, amongst other things, describe the knowledge and practice required for effective teaching, set the standard for certification, guide professional learning and development, and increase the confidence the public has in teaching as a profession (Education Council, 2017, p.16).

While there is no requirement for tertiary educators to hold teaching qualifications individual organisations may set their own standards/qualification requirements. In addition, and as noted later in this paper, the TEC has required (for funding purposes), educators working in the foundation sector to hold or be working towards adult teaching qualifications.

³ The term 'pedagogy' is used throughout this review as the overarching term for teaching practice. As such it is inclusive of 'andragogy'.

⁴ The Teaching Council of Aotearoa New Zealand was previously known as the Education Council.

Nor does the tertiary education sector, as Suddaby (citing James, 2015) notes, have registration requirements, a code of ethics, professional standards, or requirements for professional learning and development. The Adult and Community Education (ACE) sector is the only part of the foundation education sector that has recognised the issues associated with this and in 2011, ACE Aotearoa developed a set of professional standards for their practitioners. These are not compulsory and are used,

... as an assessment tool (of potential or current teaching staff) to inform recruitment, job descriptions, supporting teaching, identifying professional development need ... [they] have been used to inform our ACE Annual Awards educator criteria ... and most importantly, we want everyone to be intentional about demonstrating if they are teaching, how do they know they are any good? And we hope the standards, particularly the indicators offer guidance and language to help with this. (Key informant)

ACE Aotearoa has refined the standards over time. They are built around the standards of commitment, knowledge, and practice and underpinned by the values of manaakitanga, whanaungatanga, and rangatiratanga (ACE Aotearoa, n.d.). There are similarities between these ACE standards, those in the compulsory sector, and Tapatoru.

Over time, the capability of the foundation teaching sector and what contributes to it has been documented in a number of research reports. In the adult literacy and numeracy sector there is a body of research by John Benseman (Benseman, Sutton, & Lander, 2005a, 2005b; Benseman, 2006; Benseman, Lander, & Sutton, 2008; and Sutton & Benseman, 2012) which shows that in this sector, as with the school sector, skilled teachers make an important contribution to learner achievement. Benseman et al. (2005a) cite a range of factors that influence learning, including: teachers being able to diagnose learners' strengths and weaknesses and being able to adopt deliberate teaching strategies that build on what learners need to be able to do in order to achieve.

In addition to Benseman's work in New Zealand there is also work from international researchers (Casey, Cara, Eldred, Grief, Hodge, Ivani, Jupp, Lopez, & McNeille, 2006; Coben, Brown, Rhodes, Swain, Ananiadou, Bown, Ashton, Holder, Lowe, Magee, Nieduszynska, & Storey, 2007; Faraday, Overton, & Cooper, 2011; Gal et al., 2020; Vorhaus et al., 2011) showing that capable and qualified teachers do improve outcomes for foundation-level learners. Vorhaus et al. (2011) found it was important for teachers to have both generic teaching skills and subject specific teaching skills. They also found:

Learner progress in literacy is greater where teachers have qualified teacher status, and in numeracy where teachers are qualified in maths to Level 3 or above (irrespective of qualified teacher status) (p. 12).

The literature cited above seemingly, either consciously or unconsciously, takes a technical, eurocentric approach to educator capability. However, in Aotearoa New Zealand the literature (Chu, Samala Abella, & Paruini, 2013; Luafutu-Simpson, Noa, Uta'i, & Petelo, 2018; Kerehoma et al., 2019; Prebble, n.d.; Sciascia, 2017) shows that in relation to teaching Māori and Pacific adults, pedagogical capability involves more than the technical aspects. It involves understanding and practising a values-based approach with learners.

In her review of 45 research projects on teaching adult Māori learners Sciascia (2017) found that teaching and learning is about a holistic approach.

This is what *Māori* refer to as 'ako'. Ako is a holistic concept that incorporates ways of knowing, knowledge systems, beliefs, values and practices that are strongly connected and related to concepts such as whanaungatanga, wairuatanga, manaakitanga, kaitiakitanga (Sciascia, 2017, p. 11).

Similarly, Kerehoma et al. (2019) report on the need for culturally appropriate pedagogies that acknowledge workplace learners' ways of thinking and their values. These researchers report successful teaching happens when,

Space is provided for employees to bring their culture into the training room and allows for recognition that learning is about the cognitive, affective, and emotional domains – ako, manaakitanga, and wairuatanga (Kerehoma et al., 2019, p. 5).

These findings echo those of Bishop (2012, p. 40) in the compulsory education sector when he talks about “a Culturally Responsive Pedagogy of Relations”. Central to this way of thinking is the value of self-determination that sees learning as “reciprocal and interactive ... learners are to be connected to each other and to learn with and from each other” (p.41). Bishop goes on to say that when teachers create appropriate socio-cultural spaces, learners feel comfortable, safe, and actively learn rather than being passive recipients of the teachers' knowledge. This finding is echoed by Kerehoma et al. (2019).

In a review of 11 Pacific research projects commissioned by Ako Aotearoa, Alkema (2014) found the key theme was also a holistic teaching approach.

The research does not identify what could be termed 'Pasifika pedagogy'. Rather, collectively it identifies what Thaman (2001) describes as a pedagogy, “based on Pacific values, beliefs and knowledge systems that incorporate Pacific styles of learning and ways of knowing” (p. 6). In other words, what has been described in this body of research is culturally inclusive pedagogy (Alkema, 2014, p.3).

Research by Southwick, Scott, Mitaera, Nimarota, and Falepau, (2017) builds on these ideas and reports, “There is no recipe or codified manual that could possibly represent what is meant by a 'pedagogy of success' as examined in this project” (p. 36). However, this research does talk about the elements that contribute to success for Pacific learners, including: safe learning environments; the centrality of the values of relationship and culture; and recognition that the latter is an asset.

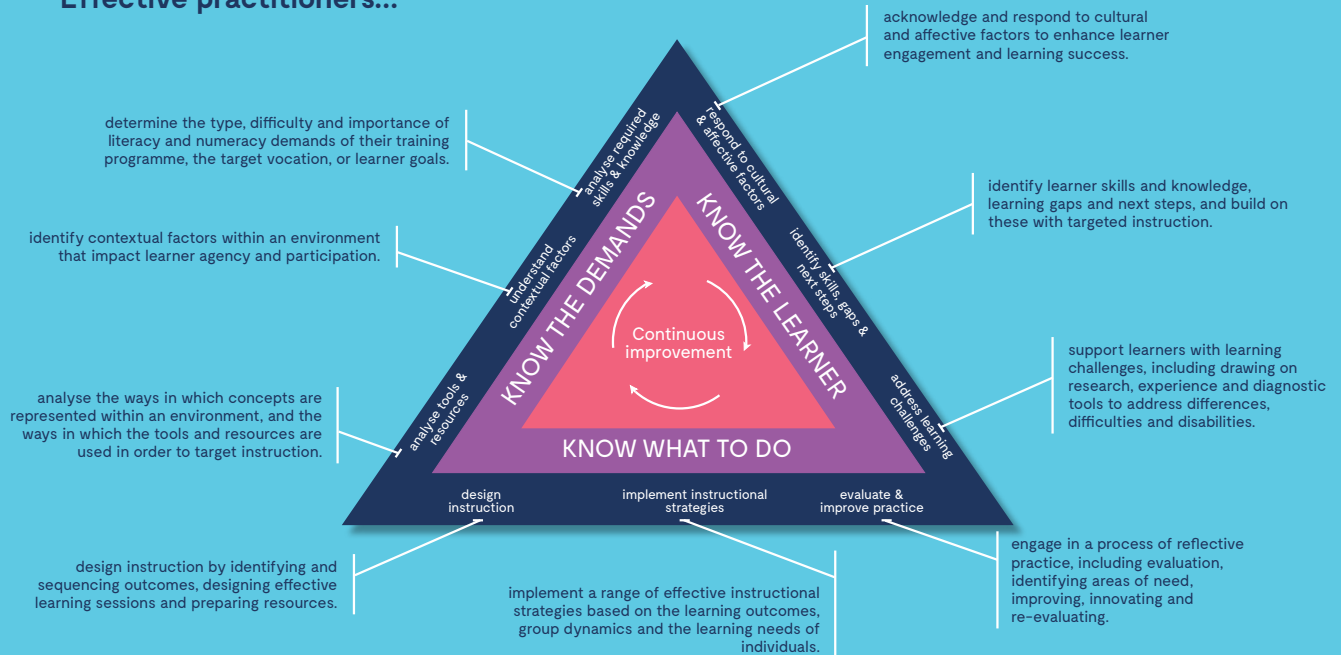
This thinking is affirmed by the Ministry of Education (2018, p.26) in the school sector, where examples of four “Pacific-based pedagogical models and frameworks” are presented. Here the models describe the importance of acknowledging cultural identities, understanding diversity, and the importance of connecting Pacific world views with those of the main-stream education system. It is worth noting here the particular challenges in the Pacific world given the differing values that Pacific nations have (Saylene Ulberg & Pale Sauni, presentation to TEC, 31 March, 2021).⁵

So where does this leave educators in Aotearoa New Zealand in terms of understanding the practice of capable practitioners? In 2018 Ako Aotearoa looked at a substantial body of research and developed a

⁵ For further information see, https://ako.ac.nz/assets/ALNACC/Files-for-TEC-presentation-31-March-2021/Ako-Aotearoa-Presentation-31-March-2021_final.pdf?

ALN Effective Practice Model

Effective practitioners...



Author: Dr Damon Whitten



Figure Two: ALN Effective Practice Model

model of pedagogical practice that underpins educator capability in the tertiary foundation teaching sector. The model is shown in Figure Two (Whitten, 2018, p. 9). The model encapsulates and brings together the cognitive, affective, and cultural domains that have been outlined above.

The model outlines what effective foundation-level educators do as they get to know their learners, know the demands of the learning programme, or workplaces when learning is happening there, and know what to do to support learners in their learning development. It is a deceptively simple framework when viewed in this way, but the knowledge and skills required to work with learners in foundation education is far from simple as educators seek to engage them with learning and with learning materials.

This brief summary of research highlights that a capable and effective workforce is one that knows the learners, the 'how' of teaching and learning, and the 'what', as shown in the triangle in Figure Two. In Aotearoa New Zealand it is essential that this workforce not only uses a technical approach but does this along with culturally responsive approaches to meet the needs of all learners, particularly those who identify as Māori and Pacific Peoples, given the numbers of these learners in foundation education.

Setting the direction for capability building in foundation education

The literature shows that a capable workforce does not develop without direction and support. In the case of foundation teaching the direction started with the Ministry of Education in 2001 with the first adult literacy strategy (Walker, Udy, Pole, May, Chamberlain, & Sturrock, 2001). Somewhat ironically this first strategy was called “More than Words” but it was nothing more than words. It took two to three years for the Ministry of Education to set up a programme of work that focused on professionalising the workforce and developing the Adult Learning Progressions (Tertiary Education Commission, 2008a).

In 2007, the TEC took responsibility for operational policy in the adult literacy and numeracy sector and incorporated capability building into their programme of work. This has been articulated in documents including:

- *LITERACY AND NUMERACY ACTION PLAN 2008-12: Raising the literacy, language and numeracy skills of the workforce*. Here building the capability of the workforce was one of three work streams and included building capability through qualifications and professional development (Tertiary Education Commission, 2008b, p. 13).
- Adult Literacy and Numeracy Strategy 2012 (cited in Alkema & Rean, 2013).⁶
- Literacy and Numeracy Implementation Strategy 2015-2019. Here the themes of previous strategies continue with one of four workstreams being devoted to building educator capability through qualifications, professional development and supporting ways to share good practice (Tertiary Education Commission, 2015, p. 16).

Over time this work has been nested within iterations of the Tertiary Education Strategy (TES). Priority Four of the 2014-2019 strategy (Ministry of Education & the Ministry of Business, Innovation and Employment, 2014) was about improving adult literacy and numeracy, but the strategy did not talk about how to deliver high-quality teaching in order for this to happen.

The importance of a capable educator workforce is highlighted in the most recent TES where one of the five objectives is, “Quality teaching and leadership” with one of the priorities being to, “Develop staff to strengthen teaching, leadership and learner support capability across the education workforce” (Ministry of Education, 2020). Here lies the strategic mandate for capability building that is further supported by the statement that the TEC is required to “give effect” to the TES.

Building the capability of the foundation education workforce

Giving effect to various iterations of the strategies outlined above has happened in two ways. Firstly, through making adult literacy and numeracy teaching qualifications compulsory for those who work in the foundation sector. Secondly, through the development of a PLD programme that supports educators and organisations in an ongoing way. Both of these are described below.

Formal Learning: Qualifications

From a formal credentialling perspective, foundation-level educators can upskill themselves through a range of qualifications, the most common of which are the Level 5 New Zealand Certificates in Adult Literacy and Numeracy Education (NZCALNE).⁷ Up until 2017 the TEC made it a requirement for organisations receiving

⁶ The strategy document is no longer available on the TEC’s website.

⁷ Before the Targeted Review of Qualifications (TRoQ) qualifications these were known as National Certificates with the acronym NCALNE.

foundation-level funding that educators either hold or be working towards these qualifications if they did not hold higher-level qualifications in the adult literacy and numeracy field.

To support this, TEC provided (and still does) the Adult Literacy Educator Grant (ALEG). The funding previously sat with two providers but is now with one provider. Educators are able to use a \$2,500 grant to complete their qualification fees-free. This is probably not the wisest of TEC spends, given there are organisations who now offer the Level 5 New Zealand Certificates in Adult Literacy and Numeracy Education (Vocational) fees-free, along with other organisations who charge lower fees than \$2,500.

In 2017 the TEC expanded the qualification requirement to include the following:

- New Zealand Certificate in Adult Literacy and Numeracy Education (Vocational/Workplace; Level 5) (NZCALNE)
- New Zealand Certificate in Adult and Tertiary Teaching (Level 5) (NZCATT)
- New Zealand Certificate in Adult Literacy and Numeracy Education (Educator; Level 5)
- New Zealand Diploma in Adult Literacy and Numeracy (Level 6) (Tertiary Education Commission, 2017).
- In 2021 it is not known how many people hold these qualifications. However, recent figures from the 2020 review of NZCALNE show very low completion rates (Keesing-Styles & Smith, 2020a).

Table One: NZCALNE enrolments and completions

Qualification	Enrolled			Completed		
	2017	2018	2019	2017	2018	2019
NZCALNE (Voc)	433	892	540	61 (14%)	188 (21%)	63 (12%)

Keesing-Styles and Smith (2020b) provide a number of reasons for this, including: some educators needing to enrol in the qualification as a funding requirement, but there being no real incentive to complete; qualifications being at too high a level for some educators; and some programmes being too theoretical for the educators who were undertaking them. Each of these factors calls into question the capability of foundation educators and the extent to which they are able to educate learners with high and diverse learning needs.

The use of qualifications as a mechanism to build capability mirrors that of the compulsory sector. While making it mandatory brought some pushback from the sector, the TEC took this approach in the context of looking to upskill and professionalise an unregulated workforce. In terms of its contribution to capability building, Benseman (2014) surveyed 217 people enrolled in NZCALNE (then called NCALNE) in 2013. He found around a third of the survey participants thought that studying for the qualification had been ‘highly influential’ on their practice and half thought it had been ‘influential’. However, those who responded to the survey did not say how their knowledge or practice had changed. Overall, Benseman concluded the certificates were appreciated by the survey respondents.

Most have found it a positive experience and report that it has also influenced their practice. These findings indicate that NCALNE has made a positive contribution towards developing a more knowledgeable and skilled workforce for this emerging educational sector (2014, p. 122).

Benseman’s findings align with those of Hazlewood and Alkema (2013) who found the qualification was described by some interviewees in their research as the best professional development they had ever done. However, Alkema, McDonald, and Whatman (2017) reported more mixed views from some of those working in the sector. Here they report the qualification was seen as a ‘one-size-fits-all approach’ for expert and novice educators, and educators who work in a range of settings – community, workplaces, and tertiary organisations; it was too theoretical; and it did not have enough cultural context. These findings align with

Smith (personal communication, 7 March 2019) who, as a deliverer of the qualification, reinforced the idea of its lack of suitability for all those working in the sector, given the differing roles they have.

While qualifications attest to achievement, on their own they are insufficient for confirming teacher capability. While they may be a marker of theoretical knowledge, they do not attest to effective practice given the ways in which they are generally assessed. As the qualification reviewers and a Tapatoru participant note,

... teacher capability is more complex than qualifications alone. While they are a critical component, they do not automatically lead to the development of a critical mass of capability and expertise amongst tertiary teachers (Keesing-Styles & Smith, 2020b, p.2).

A formal qualification is the initial script, the idea for a movie – the basics of the plot line. This [Tapatoru] is the living dynamic of it – it makes the technical work with the emotion. (Tapatoru participant)

Nonetheless, in spite of the critique, we now have a foundation education workforce more qualified and better prepared to teach than it would have been without the qualification. So, in essence, while a somewhat clunky policy lever, the 2008 policy decision was the right one. In addition, we need to be mindful that we are ahead of some of our overseas counterparts who introduced qualifications for foundation educators later than Aotearoa New Zealand did (Windisch, 2015).

Non-formal professional learning and development

As outlined above, building educator capability through professional development has been a focus area for the TEC. From 2007–2009, the TEC invested in the capability building of ITPs and ITOs by looking to upskill educators to embed literacy and numeracy into their foundation-level programmes. Embedding was seen as the way to increase the number of learning opportunities that were available for literacy and numeracy. The approach drew on the work of Casey et al. (2006) whose research concluded that outcomes for learners were better when embedded (integrated) approaches were used rather than when literacy and numeracy were taught separately to other curriculum areas.

It is not possible to determine the overall impact of TEC's investment in sector capability building in relation to embedded literacy and numeracy as there was no evaluation of its impact in the ITP sector. However, a formative evaluation of embedding in ITOs (Ryan, McDonald, Sutton, & Doyle, 2012) concluded that, while there had been considerable investment, there was still considerable work to be done to ensure that literacy and numeracy were business as usual in the ITOs. A follow-up study by McDonald, Alkema, and Benseman (2014) found the capability of organisations had improved since 2012 and embedded approaches were integrated into both strategic and operational levels of organisations. Work currently underway by Alkema and Murray (2021) shows embedded literacy and numeracy approaches remain a key part of the foundation teaching sector, especially in the subsidiaries of Te Pūkenga, but educators still require considerable support to do this.

Between 2009 and 2017 the National Centre of Literacy and Numeracy for Adults (NCLANA) at the University of Waikato delivered PLD programmes and online resources to support teaching and learning. This work was transferred to Ako Aotearoa in 2018. Between 2015–2018 additional PLD for organisations and educators with high numbers of Māori and Pacific learners was delivered through the He Taunga Waka (HTW) programme run by Ako Aotearoa. This programme has been discontinued and cultural capability

programmes are now delivered through an online programme using the Pathways Awarua platform⁸ or embedded into wider PLD programmes run by the Adult Literacy, Numeracy and Cultural Capability (ALNACC) team at Ako Aotearoa.

But, having PLD opportunities on offer is not sufficient. Educators have to be afforded the opportunities to attend. The research shows that this is not always the case. Alkema, et al. (2017) found that both NCLANA and Ako Aotearoa said it was challenging to get people to attend PLD workshops. This is also a finding of Chauvel (2019) who notes that in the ACE sector, upskilling and developing tutors is a key challenge, contributed to by the lack of budget for professional development.

It appears lack of take up of PLD opportunities is not new. Haigh (2006) reported that in the tertiary teaching sector, as a whole, there was low uptake of PLD opportunities. His thinking is that teachers don't undervalue PLD, rather that the formats on offer did not meet their needs. Haigh's findings are in line with Hazlewood and Alkema (2013) who found that non-users of NCLANA workshops said the PLD on offer was too theoretical/academic and was not what they were interested in.

The idea that it is too theoretical and academic for educators aligns with McHardy and Chapman's (2016) findings that tutors working with foundation learners often have minimal training, use varied practices and are likely to bring their own beliefs to the way they think about reading, learning to read, and the learners. Beeli-Zimmerman (2015) found the same in relation to numeracy tutors and concluded beliefs are hard to change and as such, workshops and courses are unlikely to change the way numeracy is taught. Benseman (2013) confirms these findings and reports tutors rely on their own knowledge and experience rather than use research-based, theory-informed approaches to teaching. However, recent work by Whitten shows when beliefs are addressed, along with the inadequacy of these beliefs, and when new beliefs are offered, practice can change (personal communication, 8 June 2021).

Changing practice takes time

Changing educators' practice by getting them to deeply reflect on their values and beliefs is difficult when educators show they essentially want 'quick fixes' through seminars, workshops and networking events. Here they expect to be kept up-to-date with what is happening, get practical strategies they can use in their classrooms, share and exchange ideas with others, and find out more about specialist subject areas, (Hazlewood & Alkema, 2013; SOLAS, 2017; Wignall, 2015; Windisch, 2015). These findings suggest educators may not always be best placed to determine the type of capability building they need or about the type of professional learning that will lead to changes in practice that are culturally and pedagogically sound.

Research in the compulsory and tertiary sectors shows that achieving medium- and longer-term outcomes takes time, as it requires getting to the heart of both the cognitive and affective domains of educators. The models of traditional sector capability building such as one-off workshops are not likely to do this and are therefore only likely to bring about surface rather than deep learning. Such surface learning leads to first-order rather than second-order change. First-order change tends to deal with aspects such as systems or learning materials, while,

second-order change goes beyond this to challenge the assumptions, beliefs and values that are generally held by practitioners about learners and learning. It gets them to change their practice in light of this (Alkema, 2012, p. 3).

⁸ Further information about this can be found at: <https://ako.ac.nz/assets/Services/Capability-pathways/5a88bda63c/Maori-Cultural-Capability-Pathway-Flyer.pdf>; and <https://ako.ac.nz/assets/Services/Capability-pathways/2dc48d1831/Pacific-Cultural-Centeredness-Pathway-Flyer.pdf>

Second-order change is an ongoing process as educators, programme managers and organisations, either after professional development or through discussion in their own organisations, start a process of reflection to test their assumptions, socialise new ideas, let go of old ideas and practices, implement new ones and revisit and re-practise their new thinking (Faraday et al., 2011; Timperley, et al., 2007). Ako Aotearoa's revised model of PLD is allowing for this with space for new knowledge, practice and reflection, and a portfolio of evidence to be developed.

Alkema et al. (2017) found professional development provided through the HTW programme provided a starting point for shifting educators' attitudes and beliefs about their Māori and Pacific learners by giving them strategies for developing meaningful and positive relationships with learners. This thinking aligns with research conducted in the compulsory sector (Timperley, et al., 2007). It also aligns with other work on inclusive pedagogies in the tertiary sector with Māori and Pacific learners, (Chu et al., 2013; Fiso & Huthnance, 2012; Fraser, 2016; Honeyfield, Petersen, Bidois, Fitchett, Van Toor, Nicholls, & Crossan, 2016; Kerehoma, Connor, Garrow, & Young, 2013; Tomoana 2012; Southwick et al., 2017).

Confounding the change process of building a capable foundation education sector is a lack of stability in this workforce. This has been driven in part, by contestable funding for Level 1 and 2 programmes (which stopped in 2018) and two-year investment plans for Tertiary Education Organisations (TEOs). No surety of funding for organisations means no surety of employment for educators. This in turn has possibly led to reduced incentives to build the capability of the workforce and the lack of time for deep change to educators' beliefs and their teaching practice. This situation is similar to Australia's where an aging and casualised, contracted workforce is impacting on the capability of the foundation teaching sector to properly teach and support adult learners (V. Iles, Manager Reading and Writing Hotline, personal communication, 18 August, 2018).

This summary of the operational context and research shows what has been done to build the capability of the foundation education workforce and the challenges associated with it. Here it has involved qualifications and PLD. While the lack of a coherent programme of review and evaluation means it has not been possible to determine the extent to which the approach has built sector capability, the 10 years of TEC's work – 2008–2017, provided the “launching pad” for work undertaken by Ako Aotearoa in 2018, which now underpins capability building in the foundation education sector.

Models of capability building through PLD

Prior to 2018 the capability-building approach in the foundation education sector had not taken the fully theoretical approach that the compulsory sector had. Here, the seminal work on best practice in PLD in schools comes from Timperley et al. (2007). This Best Evidence Synthesis (BES) provides theories and approaches that work to change teacher practice and in turn improve student outcomes.

... [there is a need] for a systemic response to the development of expertise, for the integration of theory and practice ... leadership practices that involve promoting and participating in effective professional learning are the practices most likely to distinguish otherwise similar schools in terms of student achievement (pp. xxi-xxiii).

Timperley, Kasar, and Halbert (2014) developed this thinking further and described a process for capability building that works on 'a spiral of inquiry' (p. 5). This thinking is incorporated into models of PLD for the compulsory sector that look at teaching from a holistic standpoint. This means practitioners,

... are aware of the assumptions underpinning their practice, including their cultural positioning, and know when these assumptions are helpful for their students and when to question them, and if necessary, to let them go. They actively seek deep knowledge about both the content of what is taught and how to teach it effectively for their students in particular contexts (Professional Development Advisory Group, 2014, p.4).

While the compulsory sector led the way, there is a growing body of literature on building the capability of the foundation teaching workforce through PLD. Australia and Ireland, like New Zealand, are two countries that have taken a consistent and continuing approach by providing resources and support for practitioners. In Ireland, the Further Education and Skills Service, *An tSeirbhís Oideachais Leanúnaigh agus Scileanna* (SOLAS, 2017) highlights the importance of ongoing professional development for those working in the further education sector because of:

- the diverse student groups they work with
- changing role requirements
- the need to be able to respond to social and economic environments, and
- the need to upskill with technology and modern learning approaches.

In Australia, the National Foundation Skills Strategy for Adults (Standing Council on Tertiary Education, Skills and Employment (SCOTESE), 2012) recognised the importance of a qualified workforce.

Australian governments recognise that practitioner quality is an important determinant in improving learning outcomes. The workforce responsible for the delivery of foundation skills content across the adult community and VET system is not a homogeneous group of practitioners. ... Quality purpose-built credentials and opportunities for professional development are critical for this group (pp. 19-20)

Literature in the school and tertiary sectors (Benseman, 2013; Department of State Development, South Australian Government, 2017; SOLAS, 2014, 2017; Honeyfield et al., 2016; Leach, Zepke, Haworth, Isaacs, &

Nepia, 2009; NALA, 2015; Professional Development Advisory Group, 2014; Timperley, et al., 2014; Wignall, 2015) shows PLD needs to be strategy- and theory-driven and based on what practitioners need to improve outcomes for learners. It also needs to be delivered in a range of flexible ways to meet practitioner needs.

In 2018 Ako Aotearoa undertook a literature review of PLD models and approaches that led to the development of capable education workforces. The review (van Lamoen, 2018a, p. 22) concluded PLD has three key factors.

1. It needs to be practitioner-centred and as such be driven by the educator’s needs. What is learnt/taught must be research-informed and built around the ‘what’ – subject areas and the ‘how’ pedagogies. It needs to develop educators to be reflective and culturally competent practitioners.
2. PLD is about more than a one-off, content-driven event. It requires educators to think and reflect on their own beliefs, practices and cultural competencies; make inquiries into their own practice; and then share ideas in communities of practice.
3. PLD requires organisational support, so that “systemic and systematic” approaches are taken to grow the capability of all staff.

On the back of this work Ako Aotearoa developed a framework for capability development that considers where PLD fits into the wider context of capability building. This framework is shown in Figure Three below (van Lamoen, 2018a, p. 6). It is built from the three broad factors shown in Figure One.

In light of the research, Ako Aotearoa also adapted their professional development offerings to take place over a longer time period. This allows for new knowledge, practice and reflection, and a portfolio of evidence (mentioned above) to be developed. While there is a menu of offerings, teachers undertaking

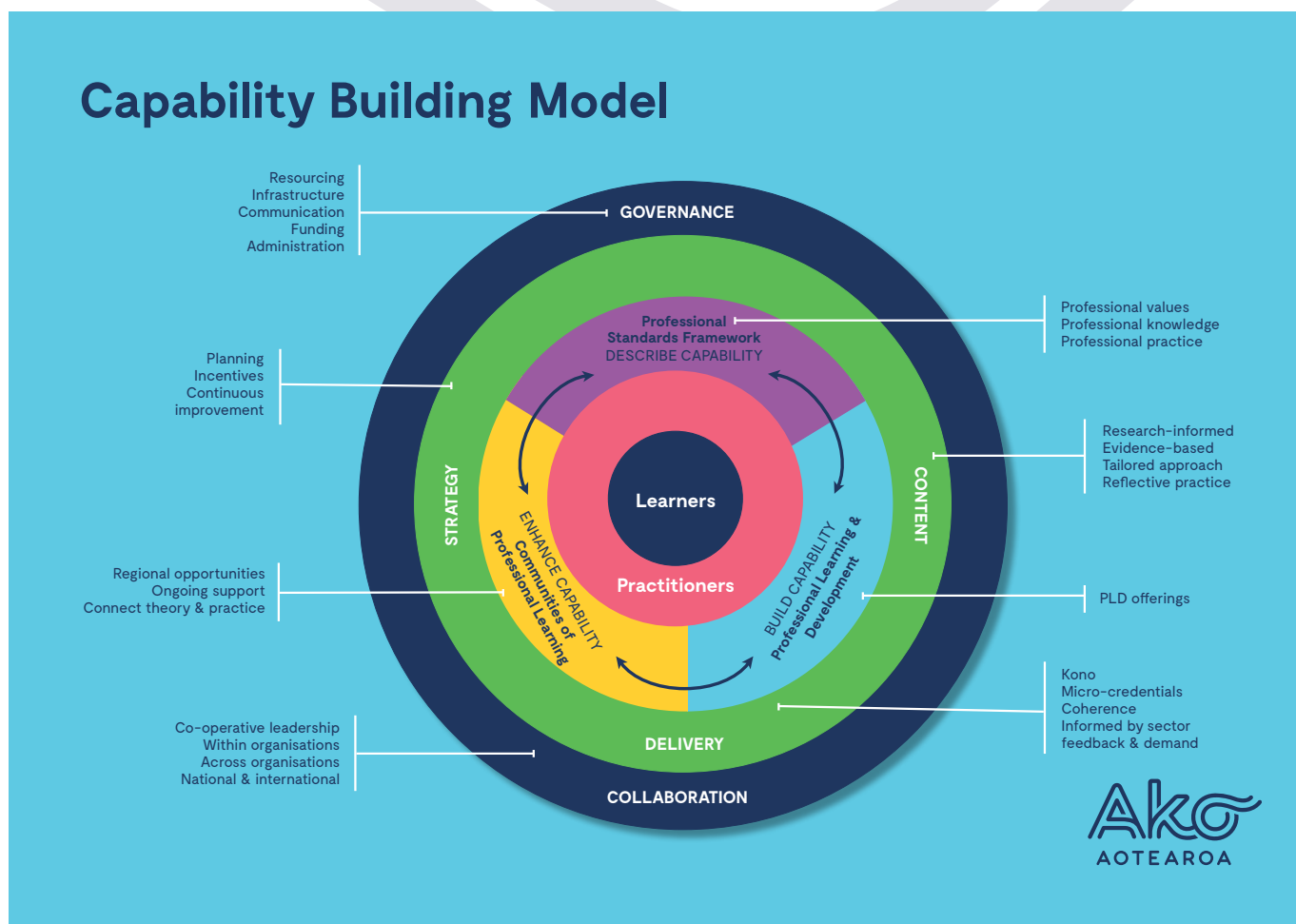


Figure Three: Capability Building Model

professional learning can personalise and customise their learning based on their needs (Gamrat, et al., 2014). This is the approach that Ako Aotearoa is building towards with its professional development opportunities. While professional development offerings can be viewed as a menu, they can also be seen in the light of heutagogy, whereby self-determined, agentic, self-regulated educators make decisions about their learning needs (Hase & Kenyon, 2007; Agonács, & Matos, 2019).

Credentiailling through digital badges

Digital badges are awarded as a way of credentiailling the learning that occurs in PLD (van Lamoen, 2018b). To date it is not known the extent to which this form of informal credentiailling is appreciated by the sector. But it is a mechanism for attesting to current competence.

Digital badges are described as relatively new in that they emerged around 2010, (Ghasia, Machumu, & DeSmet, 2019). They are symbols or indicators of achievement and a way of credentiailling non-formal learning. They are an alternative way of recognising achievement as opposed to formal qualifications (Clements, West, & Hunsaker, 2020; Dyjur & Lindstrom, 2017; Ghaisa et al., 2019; Gibson, Ostashewski, Flintoff, Grant, & Knight, 2015; Hunt, Carter, Zhang & Yang, 2020; Wolfenden, Adinolfi, & Cross, 2020). Internationally they are also referred to as micro-credentials. However, in Aotearoa New Zealand there is a difference between digital badges and micro-credentials, with the latter being formal recognition of 'bite-size' pieces of learning that are attached to credits on the New Zealand Qualifications Framework (NZQF).

Open digital badges are symbolic representations of skills, accomplishments, status, activities or identities that are commonly awarded by an issuer and embedded with a link to evidence that supports the learner's claim to the badge (Wolfenden et al., 2020, p. 109).

Badges can help educators and others by providing a durable and shareable record of professional learning and development. You can also use a collection of badges to map out what you have achieved over time. Ako Aotearoa badges benefit you by providing a way to show that you have kept up-to-date with current knowledge and practice with regard to adult literacy, numeracy and cultural capability (Ako Aotearoa, n.d.).

Key to the information digital badges provide is the metadata embedded within them that describe what has been done and achieved. The data can include, the date, the issuer, what's been done for the award, and the standards and details of the skills and knowledge that have been achieved (Ghasia et al., 2019; Gibson et al., 2015; Clements et al., 2020).

Open badges are valuable because of the included metadata, which typically include the badge name, description, criteria, issuer, evidence, date issued, standards, and tags (Bowen, n.d.). This metadata connects evidence and criteria to the credential, better communicating what the learner accomplished (Clements et al., 2020, p. 106).

The metadata are a way of showing skills, achievements, and competencies attained by badge earners and are a way of capturing detailed information on a larger number of learning achievements than is possible through the more traditional and formal certification processes (Brauer & Siklander, 2017; Dyjur & Lindstrom, 2017; Gashia et al., 2019).

For example, in a communication skills course, learners upon fulfilling established criteria can earn a “public speaking” micro-credit in the form of a digital badge. Therefore, a badge is the image or symbol associated with micro-credits issued by the specific issuers in recognition of the efforts and accomplishment on successful completion of associated criteria (Ghasia et al., 2019, p. 221).

Digital badges have the advantage of capturing non-formal learning that might otherwise go unnoticed or unrecognised, as tends to happen with professional learning in the teaching sector. This was important for some of the participants in the Tapatoru trial who wanted to be able to show this in their CVs. Digital badges allow a wider range of achievements to be seen than can traditionally be displayed in the macro-credential of a qualification (or in Aotearoa New Zealand’s case, also the micro-credential). In addition, as part of the documenting process, they capture data that can be tracked and allow for a flexible and individualised pathway of learning to be envisaged and developed. They also have the potential to shape and inform lifelong learning and give coherence to this learning (Dyjur & Lindstrom, 2017; Gibson et al., 2015; Wolfenden et al., 2020).

Collectively, a series of digital badges operate as signposts that direct learners to professional development and new learning opportunities (Gibson, et al., 2015). They are also portable and shareable through social media and professional networking sites (Clements et al., 2020; Dyjur & Lindstrom, 2017; Wolfenden et al., 2020). Displaying badges is a way of showing personal achievements and enhancing one’s reputation (Gibson, et al., 2015).

Perceptions of digital badges

The literature suggests there are mixed views on digital badges. In higher education settings those who are positive about them see them as “authentic and innovative” and those who are less positive see them as “less prestigious than a certificate” or “viewed them as juvenile” (Dyjur et al., 2017, pp. 389–390). In relation to professional development for teacher education Wolfenden et al. (2020) found those in their study to be enthusiastic about the use of and awarding of badges. These researchers drew these conclusions based on the idea that badges allow for the recognition of both theory and practice and have the ability to capture reflection and practice, based on the submission of evidence, for example, student work and classroom practice.

An issue for the perception of digital badges and their credibility, is their newness. This impacts on people’s understanding of them generally and the extent to which, for example, employers see them as being valid forms of credentials. However, as Young et al. (2019) report, when employers know about them, they see their potential and want to know more about them.

Participants in the Tapatoru trial have mixed views on digital badges. These views range from those who appreciated them and saw value of them in terms of being something they could use on, for example, their LinkedIn page, through to those for whom they were a little meaningless. For those with the latter view it may be that more socialisation about what badges are and their value may shift their thinking

... apparently they are quite the thing, ... Apparently they are sort after and if you don’t have a badge you’re so like not 2020. So, personally I don’t know how to use them. But I did get a badge[s] [for a number of other PLD activities], and I was quite pleased ..., but I don’t actually know what to do with it. But I know for the under 50s they are terribly sought after. (Tapatoru participant)

A digital badge. See when I did it, in my head, I was like we're gonna get this certificate and it's gonna be like this "here it is" and then people will pick it up and go, "Oh yeah, I know what you're talking about. Tapatoru, I know that framework". But I guess the reality is, because it is a pilot it's not well, widely well-known at the moment. ... (Tapatoru participant)

Value of digital badges

In spite of some views that digital badges are less prestigious than a formal qualification, as shown by the quote above, the literature shows there is value in them. They can act as extrinsic and intrinsic motivators, with the latter being more effective in relation to learning gains (Carey & Stefaniak, 2018). In relation to extrinsic motivation people persist with their learning with one of the reasons being to achieve a badge (Dyjur et al., 2017; Gibson et al., 2015). Digital badges also provide recipients with "status recognition in online communities" (Ferdig & Pytash, 2014; Gibson et al., 2015). Young et al., (2019, p. 117) found 93 percent of badge earners accepted them in 2018, with 67 percent of them adding badges to their social media accounts (LinkedIn or Facebook) and 47 percent of them saying they planned to "use the badge for professional recognition of some kind".

From an intrinsic perspective digital badges help with goal setting and provide the tools for reflecting on practice (Wolfenden et al., 2020). They also impact on people's behaviours, act as a way of promoting lifelong learning (Ghasia et al., 2019) and capture a range of personalised and customised learning experiences (Gamrat, Zimmerman, Dudek, & Peck, 2014). This is exactly what is being done in Tapatoru.

As the badging system evolves and grows there is the potential for digital badges to be used and more widely accepted as a form of validation and accreditation. The potential lies in the flexibility they offer in terms of the skills that can be recognised.

A digital badge can thus represent a new type of measure and method to display both achievements and status, as it is digitally linked to further representations of the skill, knowledge, or activity that it signifies. In education, digital badges can thus be used to provide both direct and indirect evidence of knowledge, knowledge-in-use, skill mastery and levels of attainment (Gibson et al., 2015, p. 408).

Digital badges reinforce the idea of current competence when they have an expiry date. In communications with the sector Ako Aotearoa states the importance of them in order to recognise ongoing professional development, and that "some badges may need a refresher, whereas others might be a step in an ongoing learning journey."⁹

In sum, digital badging can provide an effective, transparent, and often user-centric manner in which to display evidence of learning while directly linking to information that is needed to understand, authenticate and validate the badge and the learning that it claims to represent (Gibson et al., 2015, p. 409).

⁹ Further information on digital badges can be found at <https://ako.ac.nz/about-us/how-to-use-digital-badges/>

Drivers for capability building

However, having a sound theoretical approach to inform PLD models is insufficient on its own for building a capability and career pathway in the foundation education sector. Educators and organisations need to see a reason for, or be motivated to, undertake capability-building activities. These reasons / motivators can be intrinsic or extrinsic. Alkema et al. (2017) proposed three possible drivers – compliance, investment and quality and these ideas are built on here.

From a compliance perspective, organisations and individuals undertake capability building because they have to. Marshall (2018, p. 3) in his draft capability framework for the tertiary education sector, comments that the TEC doesn't want to "require compliance through funding conditions," rather the TEC wants to see organisations caring about their capability in order to meet the needs of their communities and their learners.

However, the compliance approach has been the case with NZCALNE where organisations are required to have staff with this qualification (or since 2017 other qualifications) in order to get funding to deliver foundation-level qualifications. Professional development is also a compliance for NZQA's External Evaluation and Review (EER) process, where reviewers need to cite records of professional development undertaken by educators.

Secondly, organisations and individuals undertake capability building because they are funded to. As is reported above, this was the case in 2008–2010 when ITPs and ITOs received considerable funding to learn how to embed literacy and numeracy into their vocational education programmes. This has also been the case for individual educators, where grants have been available to undertake NZCALNE. In addition, when NCLANA was first established professional development workshops were available at no cost. However, 'free' is not enough on its own to ensure the uptake of professional learning as the low uptake of some of the PLD offerings has shown.

Thirdly, there is the quality driver. Organisations and individuals undertake capability building because they are committed to high-quality delivery and want to improve outcomes for their learners. Here it is about people who want to do their jobs better, improve job satisfaction and having the skills that make teachers' jobs easier.

These three approaches are not mutually exclusive, but to date the capability-building drivers have been very much compliance-based. Incentivising the sector to either take up what is on offer or invest in their own capability building requires some changes in thinking by individuals and education organisations. The quality incentive works from the basis that providers are intrinsically motivated to deliver quality programmes and will invest in their own capability building in order to do this. However, it is unlikely that all education providers, particularly the small PTEs, have the capacity/funding and expertise to do this. It is also challenging in the current Review of Vocational Education (RoVE) context with ITPs and ITOs, as educators move, restructure, and reshape.

Professional standards

As is the case with understanding the foundation educator workforce, it is unclear why so little has been done in relation to defining teaching standards in the tertiary sector widely and the foundation education sector specifically, given the work that has been done in the compulsory sector. In 2012 draft standards for vocational educators were developed by Ako Aotearoa and the Metro ITP working group (Teacher Education Review Governance Group, 2014). These appear to have achieved no more than draft status. A possible reason is the extent to which teaching in the foundation sector can be described as a profession. It also comes back to Elfert and Walker's (2020) idea of the 'poor cousin' in the tertiary sector.

Apart from in adult teaching qualifications and more recently in Tapatoru, descriptors of tertiary educator capability are articulated in few places in Aotearoa New Zealand. At a national level Ako Aotearoa has criteria for its Tertiary Teaching Excellence Awards for the tertiary education sector as a whole (Ako Aotearoa, 2021). These are high level and are used to guide the evidence that goes into portfolios for entry into the awards. ACE Aotearoa, as noted earlier, has a teaching standards framework with standards for commitment, knowledge, and practice.

In the higher education sector, the Auckland University of Technology (AUT) has a professional standards framework, Ako Aronui.¹⁰ Based on the UK Professional Standards Framework (UKPSF) (Advance HE, 2011) and "contextualised with Māori philosophies, world views and values" (Buissink, Diamond, Hallas, Swann, & Sciascia, 2017; Auckland University of Technology, 2019) it leads to a Higher Education Academy (HEA) fellowship. Piloted from 2015–2017, it is a teaching standards framework with three focus areas, activities (hei mahi), knowledge (māramatanga), and values (ngā uara). Like Tapatoru it incorporates Māori language and values, and while it is a framework it is also seen as a professional learning programme (Auckland University of Technology, 2019).

When looking across other professions that have professional standards, for example, medicine and engineering, Révai (2018) determined they had three criteria: initial education takes place in a university; the standards regulate admission and continuing career development; and the standards contain information about the knowledge base required for practitioners. Suddaby (2019) adds to this thinking and talks about professional standards as incorporating teaching standards.

Included within professional standards are teaching standards. These can either be formal (regulatory) or informal (voluntary), or a combination of both. Teaching standards can include requirements for relevant qualifications and training, identified responsibilities and accountabilities, involvement in on-going professional learning, and adherence to an ethical framework ... the interest and focus of professional standards are on continuing to enhance the quality of student learning through the enhancement of teacher quality and support (p. 15).

What's happening internationally

In England, professional standards for foundation educators were developed in 2014. These standards have three domains, professional knowledge, professional skills, and professional values (Education and Training Foundation, 2014). The professional standards use a self-assessment framework whereby practitioners reflect on their own practice, discuss this with managers and peers. A survey on the standards (Pye Tait

¹⁰ Ako Aronui Framework Poster. Accessed 3 May 2021 at https://altlab.aut.ac.nz/wp-content/uploads/2017/12/Ako-Aronui-3-Framework-Poster_Nov14.pdf

Consulting, 2014) found that while the survey respondents thought the purpose was not clear, those in the sector appreciated having their own set of standards as opposed to more generic ones. Those surveyed also thought the standards were reflective of the diverse sector, but wanted more guidance on how to use them in the subsectors.

Case studies posted in April 2020 (Education and Training Foundation, 29 April 2020) show how these standards are being used to inform and attest to teaching practice. The standards are used to inform continuous professional learning, as reflective tools, and in some cases form the basis for conversations in performance appraisals.

Scotland also has a professional development framework with detailed descriptions of the competencies required for teaching adult literacy (Education Scotland, n.d.). However, Galloway (2018) points out the difficulties in Scotland in terms of meeting these competencies given the range of diverse communities that foundation educators are working with, and the lack of professional learning opportunities and opportunities for collaboration available to them.

Australia also undertook a considerable body of work on professional standards for foundation educators as part of the work on the National Foundation Skills Strategy for Adults (Standing Council on Tertiary Education, Skills and Employment (SCOTESE), 2012). Research by Wignall (2015) determined that a professional standards framework should describe the knowledge and skills practitioners need. In February 2017 the Australian government released a draft framework for consultation (Department of State Development, South Australian Government, 2017). This work was not progressed and the consultation process ceased (Workshop attendees, personal communication, ACAL Conference, 14 September 2018).

Tapatoru: The Foundation Learning Professional Standards Framework

As part of their suite of work on capability building, Ako Aotearoa developed the foundation learning professional standards framework, Tapatoru. It is built around Ō tātou uara (what we value); Ō tātou mōhiotanga (what we understand); and Ā tātou mahi (what we do), and consists of four papa descriptor levels (Smith & Te Rito, 2018, p. 6). The four papa cater to the different roles of educators in the foundation sector, from those who support learners and/or are new to the sector through to those in leadership roles.

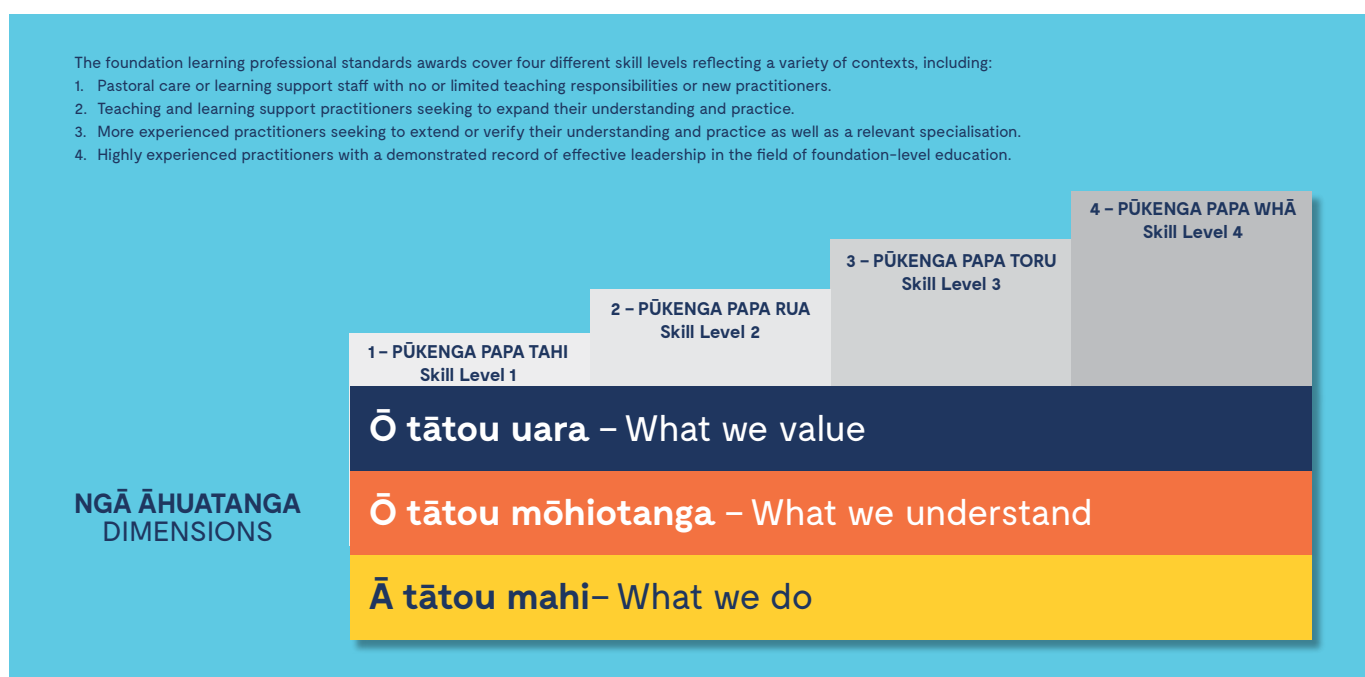


Figure Four: Ngā Āhuatanga

(Source Smith & Te Rito, 2018, p. 6)

Building from the theory of change articulated at the beginning of this paper, Tapatoru:

- describes the capability of practitioners who work with foundation-level learners
- uses broad descriptors of capability that cover the range of practitioner roles in the tertiary education foundation sector
- is informed and informs what it takes to build capability, such as PLD and communities of practice (Smith & Te Rito, 2018, p. 8).

Tapatoru provides the mechanism for attesting to current competence with the four-level papa providing the opportunity for all of those working in the sector to be recognised. Assessment for the Tapatoru award (a digital badge) is by way of an evidence portfolio. This can be either written or through kōrero. What is being looked for in the portfolio is evidence of practitioners' knowledge and practice and the extent to which these are "underpinned by and integrated with professional values". The award also requires professional references that attest to practice and PLD activities where they are undertaken (Smith & Te Rito, 2018, p. 9).

Ako Aotearoa has had to work hard to generate interest in Tapatoru and get organisations and individuals to participate in the trial. Given the little use of professional standards frameworks in the tertiary education sector in Aotearoa New Zealand, this not surprising. There is little knowledge about what Tapatoru is, why it is needed, how it might be used, and the purpose and value of it. These factors, combined with RoVE that hit the sector in 2019 and COVID-19's arrival in 2020, and lack of support from TEC, have contributed to the fact that Tapatoru has had little chance of uptake. However, in saying this, Tapatoru has been trialled by four organisations and by individuals in the ALNACC Community of Practice.

Findings from research on the trial show going through the Tapatoru process has considerable value for foundation educators. Firstly, it allows educators to recognise and articulate Ō Tātou Uara – the values of whanaungatanga, manaakitanga, wairuatanga, and aroha and allows them to think about, build towards, or affirm their cultural competence. Secondly, it provides space for deliberate reflection-on-action, and for some, reflection-in-action in relation to their knowledge, practice, and values. Thirdly, it allows educators to articulate their practice in a way that has not been asked for previously and has enabled a broader understanding of what it means to be a professional in the foundation education sector (Alkema, 2021).

Conclusion

Building the capability of a diverse foundation teaching workforce can be challenging for a number of reasons, including:

- the diversity of the workforce
- the possible lack of background qualifications of this workforce
- the desire of the workforce to have ‘quick-fixes’ through brief interactions with PLD opportunities such as workshops
- the time it takes to get to deep change that, in the Aotearoa New Zealand context, includes cultural competence
- the thinking that qualifications are the determinant of capability and the extent to which micro-credentialling or badging are valued by the sector and the TEC.

Building from TEC’s original direction, Ako Aotearoa has taken an evidence-informed approach to building the capability of the foundation education sector. There is an effective teaching model and a model for how to build effective educators through PLD. And professional standards are the foundation of this, as shown in Figure Five below (Ako Aotearoa, 2018, p. 8).

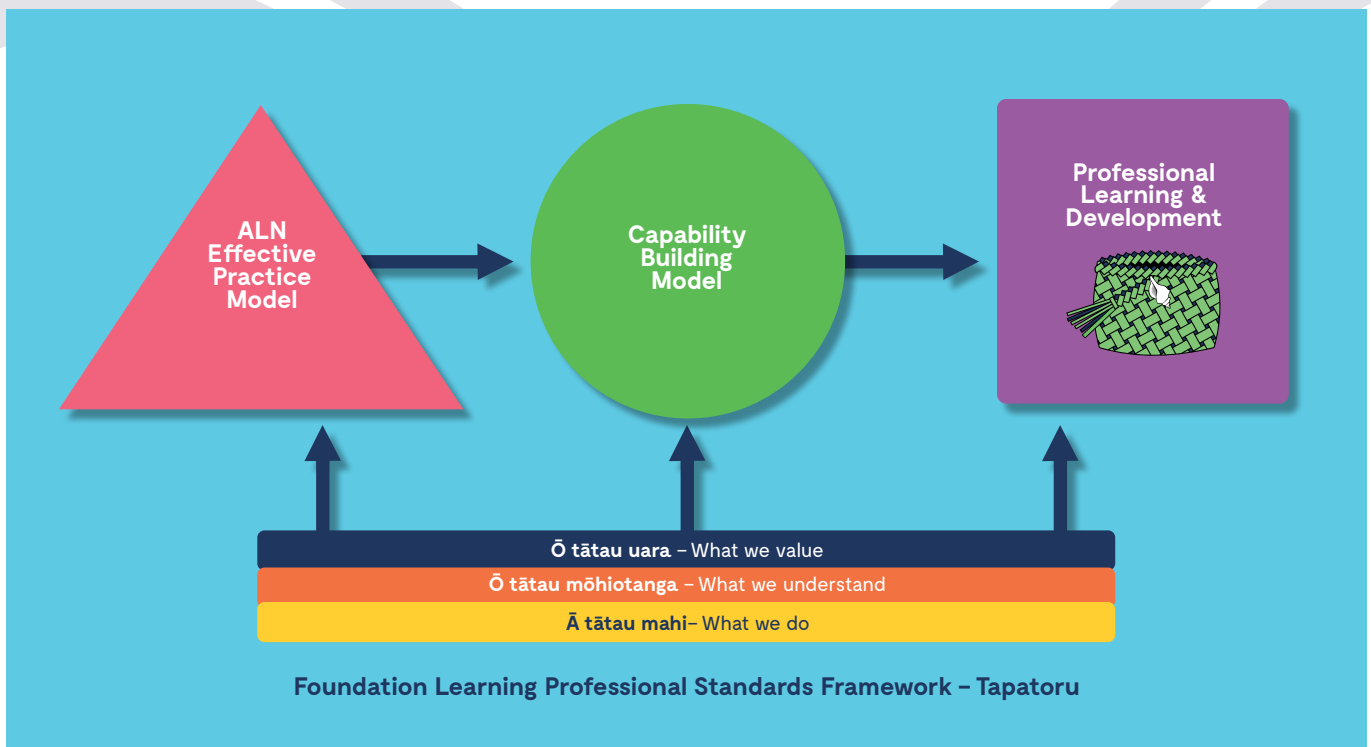


Figure Five: An integrated framework for capability building

Through dedicated and persistent processes Aotearoa New Zealand has arrived at this place. It has taken: investment from government; compliance requirements, which have not always been positively received; and evidenced-based, theoretical approaches to practice. We can see over time a maturation of the sector whereby, over the last 10-15 years, we have built an evidence base of what works in our corner of the South Pacific and as such feel more secure in our own thinking and practice. We are now in the position to move forward using the framework for capability building. We recognise, more than ever, the role that a capable educator workforce plays in improving outcomes for foundation learners.

References

- ACE Aotearoa. (n.d.). *Ace teaching standards*. Accessed 5 March 2019 at <https://www.aceaotearoa.org.nz/what-we-do-professional-development/ace-teaching-standards>
- Advance HE. (2011). *The UK professional standards framework for teaching and supporting learning in higher education*. Accessed 11 April 2021 at https://s3.eu-west-2.amazonaws.com/assets.creode.advancehe-document-manager/documents/advance-he/UK%20Professional%20Standards%20Framework_1570613241.pdf
- Agonács, N., & Matos, JF. (2019) Heutagogy and self-determined learning: a review of the published literature on the application and implementation of the theory. *Open Learning: The Journal of Open, Distance and e-Learning*, Vol,3493), 223-240. DOI: 10.1080/02680513.2018.1562329
- Ako Aotearoa. (2014). *A foundation for progression: Graduate profiles for level 1 and 2 qualifications*. Wellington: Author.
- Ako Aotearoa. (2021). *National tertiary teaching excellence awards 2021: Procedures, guidelines and criteria*. Wellington: Author.
- Ako Aotearoa. (n.d.). *Ako Aotearoa badging FAQ*. Accessed 15 June 2021 at <https://ako.ac.nz/assets/Badges/Ako-Aotearoa-badging-FAQ.pdf>
- Alkema, A. (2014). *Success for Pasifika in tertiary education*. Wellington: Ako Aotearoa.
- Alkema, A. (2012). *Creating sustainable change to improve outcomes for tertiary learners: A framework for thinking about projects in tertiary education*. Wellington: Ako Aotearoa.
- Alkema, A. (2020). *Technology-enabled learning in the foundation education sector*. Accessed 10 April, 2021 at <https://www.skillshighway.govt.nz/sites/default/files/images/Skills%20Highway%20Technology%20Enabled%20Learning%20Report%20Final.pdf>
- Alkema, A. (2021). *The case of tapatoru: Building the capability of foundation level educators through professional standards*. Draft Doctoral Thesis.
- Alkema, A., & Hazlewood, K. (2015). *Assessment-tool-and-contribution-to-educational-outcomes*. Wellington: Tertiary Education Commission.
- Alkema, A., McDonald, H., Whatman, J. (2017). *Lifting sector capability to improve outcomes for foundation learners*. Unpublished Report to the Tertiary Education Commission.
- Alkema, A., & McDonald, H. (2018). *Outcomes for foundation level learners: A report to the Tertiary Education Commission on outcomes, indicators and measures for adult literacy and numeracy learners*. Unpublished Report to the Tertiary Education Commission.
- Alkema, A., & Murray, N. (2021). *Review of the literacy and numeracy for adults assessment tool and pathways awarua*. Draft report to the Tertiary Education Commission.
- Alkema, A., & Rean, J. (2013). *Adult literacy and numeracy: An overview of the evidence - annotated bibliography*. Wellington: Tertiary Education Commission.
- Alton Lee, A. (2003). *Quality teaching for diverse students in schooling: Best evidence synthesis*. Wellington: Ministry of Education.
- Auckland University of Technology. (2019). Ako Aronui. Accessed 8 July, 2019.
- Beeli-Zimmerman, S. (2015). From teaching literacy to teaching numeracy: How teachers' previous experiences shape their teaching beliefs. *Numeracy Studies 2015*, 23(1), pp. 20-49.
- Benseman, J., Sutton, A., & Lander, J. (2003). *Foundation learning in Aotearoa/New Zealand: Mapping the nature and extent of provision 2003*. Auckland: Auckland Uniservices Ltd.
- Benseman, J., Sutton, A., & Lander, J. (2005a). *Working in the light of evidence, as well as commitment. A literature review of the best available evidence about effective adult literacy, numeracy and language teaching*. Auckland: Auckland UniServices Ltd. and The University of Auckland.

- Benseman, J., Lander, J., & Sutton, A. (2005b). *Pedagogy in practice: an observational study of literacy, numeracy and language teachers*. Auckland: The University of Auckland & UniServices Ltd.
- Benseman, J. (2006). Refining family literacy practice: A New Zealand case study. *Adult Basic Education*. Vol 16 (2), 67-80.
- Benseman, J. (2013). Research-informed teaching of adults: a worthy alternative to old habits and hearsay? Unitec ePress Occasional and Discussion Paper Series. 2013/2:23. Auckland: Unitec Press.
- Benseman, J., Lander, J., & Sutton, A. (2008). How we teach: a study of literacy and numeracy teachers' teaching. In J. Benseman & A. Sutton (Eds.), *Facing the challenge: foundation learning for adults in Aotearoa New Zealand* (pp. 155-164). Wellington: Dunmore Publishing.
- Benseman, J. (2014). Practitioners' Perspectives on the Value of a National Adult Literacy and Numeracy Qualification. *New Zealand Journal of Teachers' Work*, 11(1), 107-126.
- Bishop, R. (2012). Pretty difficult: Implementing kaupapa Māori theory in English-medium secondary schools. *New Zealand Journal of Educational Studies*, 47(2), 38-50.
- Brauer, S., & Siklander, P. (2017). Competence-based assessment and digital badging as guidance in vocational teacher education. In H. Partridge, K. Davis, & J. Thomas. (Eds.), *Me, Us, IT! Proceedings ASCILITE2017: 34th International Conference on Innovation, Practice and Research in the Use of Educational Technologies in Tertiary Education* (pp. 191-196). Toowoomba: University of Southern Queensland.
- Buissink, N., Diamond, P., Hallas, J., Swann, J., & Sciascia, A. D. (2017). Challenging a measured university from an indigenous perspective: placing 'manaaki' at the heart of our professional development programme. *Higher Education Research & Development*, 36(3), 569-582.
- Bynner, J., & Parsons, S. (2006). *New light on literacy and numeracy: summary report*. London: NRDC.
- Carey, K., & Stefaniak, J. (2018). An exploration of the utility of digital badging in higher education settings. *Education Technology Research and Development*. 66, 1211-1229. <https://doi.org/10.1007/s11423-018-9602-1>
- Casey, H., Cara, O., Eldred, J., Grief, S., Hodge, R., Ivani, R., Jupp, T., Lopez, D., & McNeille, B. (2006). "You wouldn't expect a maths teacher to teach plastering...": *Embedding literacy, language and numeracy in post-16 vocational programmes – the impact on learning and achievement*. National Research and Development Centre: London.
- Chauvel, F. (2019). *Adult and community education in Aotearoa: Environmental scan*. Wellington: ACE Aotearoa.
- Chu, C., Samala Abella, I., & Paruini, S. (2013). *Educational practices that benefit Pacific learners in tertiary education*. Wellington: Ako Aotearoa.
- Clements, K., West, R. E., & Hunsaker, E. (2020). Getting started with open badges and open microcredentials. *International Review of Research in Open and Distributed Learning*, 21(1) doi:<http://dx.doi.org.op.idm.oclc.org/10.19173/irrodl.v21i1.4529>
- Coben, D., Brown, M., Rhodes, V., Swain, J., Ananiadou, K., Bown, P., Ashton, J., Holder, D., Lowe, S., Magee, C., Nieduszynska, S., & Storey, V. (2007). *Effective teaching and learning: Numeracy*. National Research and Development Centre for Adult Literacy and Numeracy: London.
- Department of State Development, South Australian Government. (2017). *Foundation skills professional standards framework: Final draft for trialling*. Accessed 21 March 2017 at <http://www.statedevelopment.sa.gov.au/upload/NFSS/fsps-framework.pdf?t=1489104000023>
- Dyjur, P., & Lindstrom, G. (2017). Perceptions and Uses of Digital Badges for Professional Learning Development in Higher Education. *Tech Trends*. 61: 386-392.
- Education Council. (2017). *Our code, our standards: code of professional responsibility and standards for the teaching profession*. Wellington: Author.

- Education and Training Foundation. (2014). *Achieving professional potential: Professional standards for teachers and trainers in education and training*. London: Author. Accessed 26 March 2019 at https://www.et-foundation.co.uk/wp-content/uploads/2014/05/ETF_Professional_Standards_Digital_FINAL.pdf
- Education and Training Foundation. (2020, April 29). *New case studies illustrate transformational roles of professional standards*. Accessed 11 April 2021 at <https://www.et-foundation.co.uk/news/new-case-studies-illustrate-transformational-role-of-professional-standards/>
- Education Scotland. (n.d.). *A professional development framework for Scotland's adult literacy workforce*. Scotland: Author.
- Elfert, M., & Walker, J. (2020). The rise and fall of adult literacy policy: policy lessons from Canada. *European Journal for the Research on the Education and Learning of Adults*. Vol 11 (1), 2020, 109-125.
- Faraday, S., Overton, C., & Cooper, S. (2011). *Effective teaching and learning in vocational education*. London: LSN.
- Ferdig, R. & Pytash, K. (2014). There's a badge for that. Accessed 27 July 2020 at <https://www.techlearning.com/news/theres-a-badge-for-that#:~:text=%E2%80%93Digital%20Badges%20for%20Teacher%20Professional%20Development.&text=By%20engaging%20teachers%20in%20conversations,become%20part%20of%20a%20community>.
- Fiso, T., & Huthnance, L. (2012). *Le So'otaga: Bridging the divide. Holistic teaching and learning practices at Pacific training establishments in Aotearoa, New Zealand*. Wellington: Ako Aotearoa.
- Fraser, C. (2016). *Becoming effective teachers for under-25 students using kaupapa Māori theory frameworks*. Wellington: Ako Aotearoa.
- Gal, I., Grotlüschen, A., Tout, D., & Kaiser, G. (2020). Numeracy, adult education, and vulnerable adults: a critical view of a neglected field. *ZDM Mathematics Education*. Vol 52, 377-394. <https://doi.org/10.1007/s11858-020-01155-9>
- Galloway, S. (2018). *The professional learning of Scotland's adult educators: Strategic forum for adult learning (professional learning working group): Final report*. Scotland: University of Stirling.
- Gamrat, C., Zimmerman, H., Dudek, J. & Peck, K. (2014). Personalized workplace learning: An exploratory study on digital badging within a teacher professional development program. *British Journal of Educational Technology*. Vol 45 (6), 1136-1148. doi:10.1111/bjet.12200
- Ghasia, M., Machumu, H., & DeSmet, E. (2019). Microcredentials in higher education institutions: An exploratory study of its place in Tanzania. *International Journal of Education and Development Using Information and Communication Technology*. Vol 15 (1), 219-230.
- Gibson, D., Ostashewski, N., Flintoff, K., Grant, S., & Knight, E. (2015). Digital badges in education. *Education and Information Technologies*, 20(2), 403-410.
- Haigh, N. (2006). Tertiary Teacher Development and Ako Aotearoa: The National Centre for Tertiary Teaching Excellence. *New Zealand Journal of Teachers' Work*, 3(2), 108-114.
- Hase, S., & Kenyon, C. 2007. Heutagogy: a child of complexity theory. *Complicity: An International Journal of Complexity in Education*. Vol 4(1), 111+ Gale Academic OneFile, https://link-gale-com.op.idm.oclc.org/apps/doc/A320846737/AONE?u=per_dcop&sid=AONE&xid=ded4bdfd. Accessed 6 Aug. 2020.
- Hattie, J. (2003, October). Teachers make a difference: What is the research evidence? Paper presented at the Building Teacher Quality: What does the research tell us ACER Research Conference, Melbourne, Australia. Accessed 18 February 2019 at https://research.acer.edu.au/research_conference_2003/4/
- Hazlewood, K., & Alkema, A. (2013). *Literacy and numeracy professional development: Research findings*. Wellington: Tertiary Education Commission.
- Honeyfield, J., Petersen, L., Bidois, V., Fitchett, L., Toor, H. Van, Nicholls, L., & Crossan, M. (2016). *Professional development decision-making to support under-25 student success*. Wellington: Ako Aotearoa.

- Hunt, T., Carter, R., Zhang, L. & Yang, S. (2020). Micro-credentials: the potential of personalized professional development. *Development and Learning in Organisations: An International Journal*. Vol 34 (2), 33-35. DOI 10.1108/DLO-09-2019-0215
- Keesing-Styles, L., & Smith, G. (2020a). *Review summary: New Zealand certificate in adult literacy and numeracy education (Vocational/workplace – L5 (2754))*. Review Paper.
- Keesing-Styles, L., & Smith, G. (2020b). Letter to the Tertiary Education Commission.
- Kerehoma, C., Connor, J., Garrow, L., & Young, C. (2013). *A model for successful Māori learners in workplace settings*. Wellington: Ako Aotearoa.
- Kerehoma, C., Alkema, A., Murray, N., & Ripley, I. (2019). *Hīnāture: Empowering Māori and Pacific people through workplace learning*. Wellington: Ako Aotearoa.
- Luafutu-Simpson, P., Noa, A., Uta'i, S., & Petelo, L. (2018). *Pasifika success indicators (PSI) tool: Learning designs and teaching strategies, supporting staff, Pacific learner success, supporting learners*. Wellington: Ako Aotearoa.
- Leach, L., Zepke, N., Haworth, P., Isaacs, P., & Nepia, W. (2009). *Organisational factors that affect delivery of adult literacy, language and numeracy provision: A review of international literature*. Palmerston North: Massey University.
- McDonald, H., Alkema, A., & Benseman, J. (2014). *Evaluating the Progress of Embedded Literacy and Numeracy in Industry Training Organisations*. Wellington: Tertiary Education Commission.
- McHardy, J., & Chapman, E. (2016). How less skilled adult readers can be taught to read. *Literacy and Numeracy Studies 2016*, 24(2), pp. 24-42.
- Marshall, S. (2018). *Capability framework introduction*. Unpublished Report to the Tertiary Education Commission.
- Ministry of Education. (2020). *The statement of national education and learning priorities (NELP) and the tertiary education strategy (TES)*. Accessed 10 April 2021 at <https://education.govt.nz/our-work/overall-strategies-and-policies/the-statement-of-national-education-and-learning-priorities-nelp-and-the-tertiary-education-strategy-tes#about-nelp-tes>
- Ministry of Education. (2018). *Tapasā: Cultural competencies framework for teachers of Pacific learners*. Wellington: Author.
- Ministry of Education & the Ministry of Business, Innovation and Employment. (2014). *Tertiary education strategy 2014-2019*. Wellington: Author.
- Ministry of Education, & Ministry of Business Innovation and Employment. (2016). *Skills and Education: Survey of Adult Skills*. Wellington: Authors.
- NALA. (2015). *A framework for meeting the professional development needs of tutors in adult numeracy in the Irish further education and training sector*. Dublin: Author.
- New Zealand Productivity Commission. (2017). *New models of tertiary education: Final Report*. Wellington: Author.
- OECD. (2019). *Getting skills right: engaging low-skilled adults in learning*. Accessed 26 March 2021 at <http://www.oecd.org/employment/emp/engaging-low-skilled-adults-2019.pdf>
- Potter, H., Taupo, K., Hutchings, J., & McDowall, S. (2011). *He whānau mātau, he whānau ora: Māori adult literacy and whānau transformation*. Wellington: New Zealand Council for Educational Research.
- Prebble, T. (n.d.). *Standards for the ACE sector: A discussion paper*. Wellington. ACE Aotearoa.
- Professional Development Advisory Group. (2014). *Report of the professional learning and development advisory group*. Wellington: Ministry of Education.
- Pye Tait Consulting. (2014). *Review of the professional standards for teachers and trainers in England: Report on the consultation on the revised professional standards*. Harrogate: Author.
- Reid, A., & Schroder, R. (2019). *Youth guarantee pathways and profiles project: Final Report*. Wellington: Ako Aotearoa.

- Révai, N. (2018). *What difference do standards make to educating teachers?: A review with case studies on Australia, Estonia and Singapore*. OECD Education Working Papers, No. 174. Paris: OECD Publishing.
- Ryan, R., McDonald, H., Sutton, A., & Doyle, S. (2012). *Formative evaluation of ITO embedded literacy and numeracy projects*. Wellington: Department of Labour.
- Sciascia, A. (2017). *Māori learner success in tertiary education: Highlights from Ako Aotearoa supported research projects*. Wellington: Ako Aotearoa.
- Smith, G., & Te Rito, J. (2018). *Foundation learning professional standards framework Tapatoru*. Wellington: Ako Aotearoa.
- SOLAS. (2014). *Further Education and Training Strategy 2014–2019*. Dublin: Department of Education and Skills.
- SOLAS. (2017). *Professional development strategy 2017–2019*. Dublin: Department of Education and Skills.
- Southwick, M., Scott, W., Mitaera, J., Nimarota, T., & Falepau, L. (2017). *Articulating a pedagogy of success for Pacific students in tertiary education*. Wellington: Ako Aotearoa.
- Suddaby, G. (2019). *Professional standards for tertiary teachers: A Synthesis of recent work and initiatives*. Wellington: Ako Aotearoa.
- Sutton, A., & Benseman, J. (2012). Understanding the needs of adult literacy and numeracy learners with very low skills: Current provision and provider perspectives. *Journal of Adult Learning Aotearoa New Zealand*. 40 (1): 108–119.
- Teacher Education Review Governance Group. (2014). *Mandatory review of teacher education qualifications*. Accessed 29 March 2019 at <https://www.nzqa.govt.nz/qualifications-standards/qualifications/teacher-education-qualifications/review-of-teacher-education-qualifications/background-to-the-mandatory-review-of-teacher-education-qualifications/>
- The Council of Australian Governments (COAG) Standing Council on Tertiary Education, Skills and Employment (SCOTESE). (2012). *National foundation skills strategy for adults*. Australia: Department of Education and Training.
- Teaching Education Council of Aotearoa New Zealand. (n.d.) *Our code, our standards*. Accessed 10 April 2021 at <https://teachingcouncil.nz/professional-practice/our-code-our-standards/>
- Tertiary Education Commission. (2008a). *Learning progressions for adult literacy and numeracy: Background information*. Wellington: Author.
- Tertiary Education Commission. (2008b). *Literacy, language and numeracy action plan 2008–2010: Raising the literacy, language and numeracy skills of the workforce – Ako Tuāpapa*. Wellington: Author.
- Tertiary Education Commission. (2010). *Getting Results in Literacy and Numeracy (2010): Contributing to the vision that all New Zealanders enjoy a level of literacy and numeracy that enables them to participate fully in all aspects of life 2010–2013*. Wellington: Ministry of Education.
- Tertiary Education Commission. (2015). *Literacy and numeracy implementation strategy 2015–2019*. Wellington: Author.
- Tertiary Education Commission. (2017). *Literacy and numeracy capability – our expectations*. Wellington: Author. Accessed 1 April 2019.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration (BES)*. Wellington: Ministry of Education.
- Timperley, H., Kasar, L., & Halbert, J. (2014). *A framework for transforming learning in schools: Innovation and the spiral of inquiry*. Victoria: Centre for Strategic Education.
- Tomoana, R. (2012). *Sharing successful teaching and learning strategies for Māori, Pacific and youth learners: the Whitireia way*. Wellington: Ako Aotearoa.
- Wignall, L. (2015). *Research to identify and qualify professional practice in foundation skills: Final Report*. Australia: Department of Education and Training.

- van Lamoen, A. (2018a). *Adult literacy and numeracy education and cultural capability: A new model for the capability building of practitioners and organisations in foundation education: Summary*. Wellington: Ako Aotearoa.
- van Lamoen, A. (2018b). *Adult literacy and numeracy and cultural capability (ALNACC): Literacy and numeracy for learning and lifelong success – a new model for foundation education in Aotearoa*. Wellington: Ako Aotearoa.
- Vorhaus, J., Litster, J., Frearson, M., & Johnson, S. (2011). *Review of research and evaluation on improving adult literacy and numeracy skills*. London: Department of Business, Innovation and Skills.
- Walker, M., Udy, K., Pole, N., May, S., Chamberlain, G., & Sturrock, F. (2001). *More than words: the New Zealand adult literacy strategy – Kei tua atu i te kupu: te mahere rautaki whiringa ako o Aotearoa*. Wellington: Ministry of Education.
- Whitten, D. (2018). *Adult literacy and numeracy (ALN) effective practice model: Maximising the performance of ALN practitioners*. Wellington: Ako Aotearoa.
- Wignall, L. (2015). *Research to identify and qualify professional practice in foundation skills: Final report*. Australia: Department of Education and Training.
- Windisch, H. (2015). Adults with low literacy and numeracy skills: A literature review on policy intervention. *OECD Education Working Papers*. No. 123. Paris: OECD Publishing. <http://dx.doi.org/10.1787/5jrxnjdd3r5k-en>
- Winter, L. (2019). *Embedding numeracy teaching practices at an institute of technology: vocational tutors' characterisations of embedding numeracy and related professional development*. Master's Thesis. University of Waikato: Hamilton.
- Wolfenden, F., Adinolfi, L., & Cross, S. (2020). Exploring open digital badges in teacher education: A case study from India. *Journal of Learning for Development – JLDL*. Vol 7 (1), 108-115.

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Building educational capability
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