CONCORE TŪHURA

Equity and Inequity

Structure Disparities in TVET

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Introduction

This report presents the findings of a review of the literature relating to equity and inequity and the implications for the design of the tertiary and vocational education and training (TVET) funding system from the perspective of the construction and infrastructure system.

This report is part of series of companion reports that comprise the technical background to a discussion paper on the funding of TVET for the construction and infrastructure sector.

References cited in this paper are presented in the standalone report *Funding of Construction and Infrastructure TVET – Methodology and Bibliography*.

Overview

Inequity in organisations and systems on gender and ethnic grounds are often embedded in system practices and processes, to the point where they can be all but invisible (Acker 2006), evidenced mainly in their effects (Veenstra 2011).

Their historic origin means there is a risk of continuity and self-reproduction of inequity; and at the same time, changing culture, populations and organisations create opportunities to reduce or eliminate their effects (Mirza and Warwick 2024).

Equity is a critical issue for New Zealand's TVET system. Underserved learners – including women, Pacific peoples, disabled people, and those from low socio-economic backgrounds – face persistent disparities in access, retention, and completion that are not explained solely by prior academic achievement (Meehan, 2017).

In New Zealand's TVET system, we see evidence of the effects of inequity in disparities of participation and achievement on both gender and ethnic bases. It was noted in section 8.2 above that Māori and Pacific peoples are underrepresented in higher levels of the qualification system in construction and infrastructure, while women's participation in TVET shows a traditional occupational bias – with high numbers in TVET for service industries but women comprise just 5% of trainees in construction trades[1].

Socio-economic status further compounds these inequities – learners from high-deprivation backgrounds are more likely to have lower school achievement and therefore, poorer preparation for post-secondary training leading higher dropout rates and lower progression (Earle 2018).

Economic hardship is a major factor: vocational students often must pay fees, forego earnings or take on the training wage (which can be lower than the minimum wage) while training. Many adult learners support families and so can't study full-time because the training wage or student allowance is too low, forcing some to leave programmes early to earn an income. Workplace-based learners who have childcare responsibilities may be unable to travel to attend off-job courses. In addition, rural learners and those without reliable transport face extra costs to access training.

The way TVET is funded can inadvertently reinforce inequities. New Zealand's funding model historically has

[1] See the data published on this page.

provided only limited equity funding or targeted resources for underserved groups, and stakeholders note that funding rules can encourage (or require) the achievement of outputs that lead to negative outcomes over time (Coolbear, 2012).

Between 2007 and the introduction of the UFS in 2022, the equity supplement in funding for provider-based tertiary education was only at degree level (although those with disabilities could also generate equity funding for Level 1 and 2 enrolments). Industry training and non-degree qualifications at Levels 3-7 – which provides for much of our TVET delivery – were specifically excluded[2].

Ethnic disparities

Pacific peoples participate in entry-level vocational training roughly in proportion to their share of the population, yet, like Māori, they are under-represented at higher qualification levels (e.g. in advanced technical programmes).

Ministry of Education data[3] shows that Māori and Pacific peoples in workplace-based training have credit completion rates well below those of Pākeha/European ethnicity. For instance, in 2023, the credit completion rate was 66% for Māori and 61% for Pacific learners against 75% for European.

Part of this may be due to the fact that workplace-based learning is largely self-directed (Alkema 2016) and that Māori and Pacific learners are often less comfortable taking the initiative to seek help (Holland 2012), a fact reinforced by our key informants. And our key informants told us that many Pacific learners have family obligations; training obligations may come fourth in their priorities after family, church and paid work – see *Appendix D.*

These disparities translate into poorer outcomes – Pacific and Māori learners have improved their qualification attainment over time, but an education gap persists. As of 2023, only 10.5% of Pacific adults (25–64) held a bachelors degree or higher, less than half the rate of Europeans (25.1%), reflecting lower completion rates at higher levels (Stats NZ, 2025a).

Disabled learners

Systemic ableism is also evident – training environments are typically designed for non-disabled learners, so disabled students frequently lack accessible materials or face instructors and employers ill-prepared to support them. Many disabled learners do not disclose their needs due to stigma or fear that employers see them as "a burden and a cost" (All is for All 2024).

In research commissioned by the Hanga-Aro-Rau and Waihanga Ara Rau Workforce Development Councils, All is for All (2024) report that many employers lack the confidence and knowledge to employ people with physical disabilities; often concerned about their ability to provide safe workplaces for those with disabilities. More than half of employers surveyed for the All is for All (2024) research cited increased health and safety risks as a barrier to the inclusion of disabled people. Because of the tie-up between employment and workplace-based learning, that affects access to training for those with disabilities. That research, however,

[2] See this page.
[3] See the data published on this page.

found cases in which enlightened employers were able to manage through those challenges, often using tools available through the Ministry for Disabled Peoples and through open dialogue with the disabled person.

Disabled learners are also overrepresented among those with no qualifications and have lower success rates; they are described as "one of the most educationally disadvantaged groups in Aotearoa", but that when disabled learners receive appropriate support, they can achieve completion rates on par with non-disabled peers, indicating the issue lies with systemic support rather than capability (Te Pūkenga, 2021a).

Neurodiverse learners and those who face language, literacy and numeracy (LLN) challenges raise other challenges. The TEC administers the Workplace Literacy and Numeracy Fund which is available for employer-led and TEO-led TVET programmes[4] (Alkema 2020) Farrell et al (2016), researching learners with LLN challenges undertaking industry training in the primary sector found that tutors lacked the tools and resources needed to identify LLN requirements of the programme and to align them with support for the trainees' LLN knowledge.

That led them to identify a framework to help educators structure their support for those with LLN difficulties. Their approach, however, is specific to the particular programme they studied; their framework would need adaptation to other programmes – meaning more cost.

Gender-based discrimination

As noted above, women's choices in workplace-based TVET reflect traditional occupational stereotypes. Building, automotive, electrical, civil engineering, mechanical engineering apprentices are all over 90% male while women comprise the overwhelming majority in personal services[5].

Hostile environments can present problems for women undertaking workplace-based training in traditionally male-dominated industries. In many industries – construction is an example – workplaces have historically been male-dominated, which has led to instances of sexism. In the construction sector, for example, many women report facing harassment or lack of basic facilities on worksites, creating an unsafe climate that deters female trainees (Hurd and Dyer 2024, Waihanga Ara Rau and Hanga Aro Rau 2023).

In practice, tertiary education organisations (TEOs) must try to support high-needs learners with insufficient resources, or else those learners go unsupported. The standard funding based on enrolment or credits attained doesn't fully account for the extra tutoring, mentoring, or accommodations needed to ensure disadvantaged learners succeed.

Another structural issue is the short-term focus of many training initiatives. Government agencies often fund programs with the primary goal of rapid job placement (e.g. some Ministry of Social Development schemes), which can lead to "long-term limited employment" cycles for participants. Research suggests that without pathways to higher skills, people placed quickly into low-skill jobs may churn through precarious work and Jobseeker Support (McGirr and Earle 2019). This indicates a policy misalignment: funding tied to immediate outcomes (like getting any job) can sideline longer-term educational attainment that is crucial for sustained career success.

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[4] Refer to this page for the employer-led and this for the TEO-led Workplace Literacy and Numeracy Fund.

[5] ibid

In summary, while current funding models are race- and gender-neutral on the surface, they often fail to counteract existing inequities. Without deliberate adjustments, they may even perpetuate disparities – for instance, by underfunding the very supports (remedial education, assistive technology, mentoring, limited access to government student financial support for those in work-based learning) that underserved learners disproportionately need to thrive.

The role of universal design in equity-based education

Universal design in education refers to designing learning environments, curricula, and assessments from the outset to accommodate the full range of learner diversity. This is often framed as Universal Design for Learning (UDL) – a framework that calls for flexible teaching methods to give all students equal opportunities to learn. Rather than retrofitting or providing special accommodations for certain learners, UDL emphasises proactive planning so that materials and activities are usable by everyone (Bong and Chen 2021, Staring et al 2022).

Key UDL principles include offering multiple means of engagement, representation, and expression. This means instructors provide various ways for students to access content (e.g. visuals, audio, hands-on practice), multiple ways for students to participate and stay motivated, and different options for students to demonstrate their knowledge (projects, oral presentations, written work, etc.) (Bong and Chen 2021).

In a TVET context, universal design might involve designing course content and assessments that account for different cultural backgrounds, learning styles, and abilities – for example, using plain language for those with lower literacy, integrating practical and theoretical learning for different strengths, and ensuring physical tools or digital platforms are accessible.

The goal is to remove structural barriers through design, so that underserved learners are not an afterthought but are included by default. When done well, universal design "dismantles systemic barriers and ensures equitable opportunities" for all learners to thrive.

Importantly, designing for accessibility (such as clear layouts, captions on videos, barrier-free classrooms) "improves the learning experience not only for those with special requirements but for everyone" (UoA, 2025).

In sum, universal design offers a pathway to bake equity into the fabric of teaching and learning, rather than treating accommodations as add-ons.

Removing barriers with inclusive pedagogy and flexible pathways

By adopting universal design and inclusive pedagogy, TVET providers can better meet the needs of Pacific learners, women, disabled learners, and others who have been underserved. One critical aspect is making learning flexible to fit different circumstances. This includes providing multiple learning pathways toward a qualification – for instance, allowing part-time or modular study, workplace-based learning options, bridging or foundation programs, and recognition of prior learning (RPL).

Flexible pathways recognise that not all learners can follow a linear, full-time route; many benefit from being able to stop and start or gain credit for skills learned on the job or in the community. For example,

recognizing the prior informal skills of adult Pacific learners or older workers can validate their knowledge and shorten the time needed to get a credential, improving retention.

Culturally responsive teaching is another pillar of inclusive pedagogy through which educators contextualise learning in students' cultural values and realities (Gay, 2018) which has been shown to enhance engagement for learners where the cultures of learners are centred (Bishop, 2009).

Such approaches help Pacific students, for example, to feel a sense of belonging and see the relevance of training to their lives, boosting success (Ryan, 2017). Likewise, for female trainees in male-dominated trades, inclusive pedagogy might involve creating peer support networks (e.g. groups for women in trades), ensuring teachers use gender-neutral language and avoid assumptions, and highlighting the contributions of women in the industry to build a supportive learning culture (Taffard, 2022).

Universal design also calls for adaptability in teaching methods to suit different learners (Rose, 2006) – for instance, combining visual demonstrations, oral explanations, and hands-on practice in a carpentry course so that whether a student learns best by seeing, hearing, or doing, they have a way to grasp the material. If a method isn't working for a student, an alternative way is available. This reduces the chance that a learner will fall behind due to a mismatch with the teaching style.

Digital accessibility, assistive technologies, and adaptive environments

Technology can be a powerful enabler for universal design in TVET with demonstrable benefit to learners (Fernández-Batanero, 2022) and there is an extensive range of assistive technologies available to learners (WHO, 2022) including a wide variety of online tools (Yenduri, 2023).

These kinds of personalised supports help prevent students from falling through the cracks. Universal design encourages educators to anticipate variability: some students will need more time, some will need alternative ways to show competence (like an oral exam instead of written for a student with writing difficulties), and some may need "assistive support put into place" to level the playing field (Te Pūkenga, 2021a).

Rather than treating these as special cases, an equity-based approach normalises them. For example, assessment in a welding course could be designed so that it's not solely a written test on theory – it might include a practical demonstration or an oral questioning, giving dyslexic or ESL learners a fair chance to excel.