

The future of education

Long-term opportunities and challenges for Aotearoa New Zealand

Briefing for the incoming Prime Minister and Government

October 2023



Introduction

A strong education system is essential to a prosperous and democratic Aotearoa New Zealand. But at the early childhood and school levels the system is failing to equip many young people with the knowledge, skills and competencies needed to thrive this century and next.

Key points

- The education system is short-changing young people by not keeping up with change in the social, demographic, economic, political, environmental and technological spheres.
- We are recording declining student achievement, rising rates of child and adolescent mental ill-health and increasing numbers of student absences from school.
- The teaching profession is hindered by poor status, variable teacher expertise and growing staff shortages.
- New professional pathways, better-supported initial teacher education and continued professional learning are required to lift student achievement.
- An integrated approach to improvement is called for recognising that social policy has a key role in outcomes for education and society.
- The curriculum needs to encompass academic subjects, socio-emotional learning, life skills and extended literacies.
- An assessment system is needed to deliver high-quality, detailed data at all levels of the system and support iterative improvement and targeted interventions.
- Pedagogy in early childhood education and schools must align with research findings on the science of learning and child development.
- Infrastructure is needed to pilot and measure the effectiveness of new educational approaches and ideas.

Context

Many children born in 2023 will live well into next century. Social, demographic, economic, political, environmental and technological change can be expected to intensify and will be a particular challenge for the young. It is essential that they possess the knowledge, skills and resilience to thrive in such a dynamic environment. The education system is critical to ensuring this.

An effective and adaptive education system is core to social mobility, psychosocial resilience, successful personal relationships, employment and effective participation in society and democracy. New Zealand's education system – in particular the early childhood and school sectors – is not performing its core duty. The changes required to substantively improve the system for all students will not be achieved simply by returning to what has worked in the past. Instead substantive change is needed such that an integrative evidence-based approach must be taken that takes account of the changing world and the broad set of social-policy factors that influence education and educational outcomes.

What the evidence tells us about school-level education

<p>Stagnant or declining achievement in core subjects</p>	<ul style="list-style-type: none"> • International data show achievement has significantly declined in reading, mathematics and science since 2009. • The proportion of New Zealand students with significant literacy issues – failure to meet the reading baseline – grew from 14 percent to 19 percent from 2009–2018. • The proportion of advanced readers – PISA level 5 literacy and above – has declined from 16 percent to 13 percent from 2000–2018. • Similar declines have not been detected in the National Monitoring Study of Student Achievement. However, achievement has been stagnant over the past two decades. • The most recent data show by year 8 only 56 percent of students are at or above the curriculum level in reading, 42 percent in mathematics and 20 percent in science.
<p>Wellbeing and executive functioning challenges</p>	<ul style="list-style-type: none"> • A growing number of children and adolescents are experiencing poor mental health and wellbeing. • Increasing numbers of children have poor executive functioning skills, which has a long-term effect on a wide range of life outcomes. • Challenges have intensified since Covid. • Students with poorer mental health and wellbeing are less able to learn effectively and on average achieve significantly poorer education outcomes.
<p>Sustained inequities in student outcomes</p>	<ul style="list-style-type: none"> • Māori and Pasifika students are achieving academic outcomes significantly below their New Zealand European and Asian peers. • In most subjects, girls significantly outperform boys. • International data show New Zealand has one of the most unequal education systems in the OECD with higher-than-average differences between socio-economically advantaged and disadvantaged students.
<p>Declining school attendance</p>	<ul style="list-style-type: none"> • In term 1, 2023, 59.5 percent at schools, down from 72.8 percent in term 1, 2019. 8.3 percent of students were classed as chronically absent in 2023.
<p>Substantial variation in curriculum implementation</p>	<ul style="list-style-type: none"> • There is considerable variability in how schools and teachers approach curriculum design, matched by differences in teachers’ understanding of the principles of effective curriculum design and the opportunities available for reviewing the curriculum in schools. • There is inconsistency in individual schools in the curriculum students receive, the content taught and to a lesser degree the assessments used, meaning different students receive very different opportunities to learn.
<p>Challenges facing the teaching profession</p>	<ul style="list-style-type: none"> • There are declining numbers of students entering initial-teacher education. • Coupled with an ageing teacher population and poor retention of teachers in their first years in the classroom, this is resulting in a teacher shortage in some regions and subjects. • The structure of initial-teacher education and the provision of professional learning and development is not equipping teachers with the full range of knowledge and expertise they require.

Factors that make the greatest difference to student outcomes

The evidence routinely identifies the same factors as having the greatest influence on student outcomes.

Teacher expertise	<ul style="list-style-type: none"> • An education system cannot exceed the quality of its teachers. • Teacher quality is the greatest within-school factor affecting student outcomes. Improving teacher expertise at scale is the most effective way to improve the quality of a school system.
Curriculum	<ul style="list-style-type: none"> • International research finds those territories with a comprehensive content-rich curriculum that delivers broad general knowledge achieve higher and more equitable student outcomes than countries with skills-based or more open curricula. • At a system level, improving curriculum and teaching materials might be the swiftest, most cost-effective way to improve the minimum standard of education experienced by the largest number of students.
Effective pedagogy	<ul style="list-style-type: none"> • Ensuring teachers are using pedagogical approaches based on the science of learning and child development is essential to improving educational outcomes.
Building strong executive functioning skills	<ul style="list-style-type: none"> • Ensuring all children and adolescents build strong executive functioning skills is essential to both educational outcomes and a wide range of lifelong outcomes.

Actions for consideration

It is essential to focus on the core needs of the education sector rather than on politically driven cosmetic change. Long-term systemic improvement requires strategic actions that build sector capacity and recognise not all children or families are the same. Such measures will not curtail plurality but will ensure high-quality processes and practices are in place throughout the education sector.

System-wide strategies

- **Establish an independent and access-free “what works” centre that is connected to comparable international organisations, is responsible for disseminating evidence in education and conducts pilot initiatives that advance educational goals.**
- **Create a centre of excellence in the science of education focused on how the sector must adapt and evolve in coming years, including capacity to impart the range of knowledge and skills children born today will need to thrive in their lives. Designing an education system in a time of rapid change needs expertise from the spheres of educational science, child development, sociology, neuroscience, psychology and computer science. The centre will also explore how best to adapt learning and teaching to ongoing technological and social change.**
- **Redevelop the curriculum to provide teachers with greater detail about what needs to be taught and when. The core academic subjects must be prioritised including a strong focus on literacy, mathematics and science but the curriculum must also include and balance the full range of children’s cognitive, socio-emotional and physical needs.**

Teachers

- **The status of teachers within society must be raised to ensure they are valued.**
- **Establish an incentive scheme with associated support structures to retain teachers after graduation or re-entry into the workforce. There should be a similar scheme for teachers in STEM and other high-priority subjects. Student loans should be remitted for newly trained teachers who agree to being bonded to stay in the New Zealand education system for five years.**

- **Appoint STEM specialists in all primary schools.**
- **Rethink professional pathways in teaching to ensure the pipeline to school leadership is strong and all school leaders are well trained and supported. Develop new pathways that provide opportunities for expert teachers and curriculum leaders to share their expertise across the sector.**
- **A taskforce should be urgently assembled to ensure sufficient teacher training given the challenges of initial-teacher education within universities and polytechnics. As part of this a review should be undertaken of how to train teachers most effectively during both their initial-teacher education and provisional registration period.**

Students

- **Make socio-emotional development integral to school and early childhood education curricula and ensure knowledge and understanding of its essential role is disseminated to teachers through initial-teacher education and professional learning.**
- **Work with the early childhood sector to develop measures that assess the quality of cognitive, physical and socio-emotional skills that children need to develop in the early years. Use these data to help improve the quality of teaching and to facilitate early intervention. Work with health authorities to integrate this with an expanded before-school check, which will ensure all children start school with a robust and holistic assessment of their development and a plan for any additional support they need.**
- **Ensure children have access to a diverse set of educational choices, particularly for those with disabilities, including additional resources for all neurodivergent children who require them. Offer plurality in school types and flexibility in approaches including special-character schools while requiring all schools and educational approaches to achieve core outcomes and ensuring the school system is constantly learning and developing.**

Assessment

- **Ensure quality assessment systems are in place that inform educational action at all levels.**
- **Develop measures of progress for all areas of the curriculum with associated assessment processes so students, teachers and parents know how students are faring and what their next steps in learning are. Ensure all teachers are assessment-literate and have the knowledge and skills to use assessment data effectively to support students' learning and improve their teaching practice.**
- **Develop systems that enable schools to share assessment information with the ministry and other relevant bodies, ensuring the data is gathered, shared and used by policy makers to support targeted intervention and inform ongoing policy development and not as a punitive measure or part of an accountability system.**
- **Draw on knowledge of what students need to know and be able to do when they leave compulsory schooling to develop a qualification system that is fit for purpose, captures the true learning of all students, is internationally recognised and serves the ongoing needs of our young people.**

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Our name, Koi Tū, was gifted by Ngāti Whātua Ōrākei. It means ‘the sharp end of the spear’. Like our namesake, Koi Tū aims to get to the heart of longterm issues challenging our future.

This document was developed as part of a comprehensive briefing to the incoming prime minister and government. The full document is available informedfutures.org/briefing-to-incoming-government-2023

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