Know me. Believe in me. Kia mārama mai, kia whakapono mai

Book of Insights

Kua tawhiti kē to haerenga mai, kia
kore e haere tonu. He nui rawa o mahi,
kia kore e mahi tonu.
You have come too far not to go
further, you have done too much not
to do more.

Ta Himi Henare (Sir James Henare),
Ngati Hine elder and leader

Know me.
Believe in me.
Kia mārama mai,
kia whakapono
mai

The Southern Initiative

THE AUCKLAND CO-DESIGN LAB

MINISTRY OF EDUCATION
TE TĀHUHU O TE MĀTAURANGA

Innovation Unit
New solutions
for thriving societies

Book of Insights

June 2020

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This book of insights is based on interviews with 70 rangatahi attending intermediate school, high school and alternative education in Manurewa, and rangatahi not in education, employment or training; as well as a further 16 interviews with school staff, youth workers and whānau and 67 ideas from the UpSouth community digital platform. These interviews help us understand the experience of Rangatahi, what helps and hinders their engagement at school as well as what it is like within the education system.

WHAT WE LEARNED IN MANUREWA: RANGATAHI INSIGHTS

Insights into the lived experiences of rangatahi, whānau and educators and what helps and hinders school engagement and attendance are provided in this section.

Each high level insight is unpacked and supporting evidence provided.

Relationships and empathy are the key to learning

When teachers can build relationships with students, it inspires them and makes it easier for them to learn.

"Inspired to learn is when the teacher is like communicating with me and I am communicating back and then we just go back and forth like a conversation about my work and what we're learning about." (High school student)

"I like it when the teacher interacts with you, it makes you like, gets to know you and stuff, so like they don't just give you work and tell you to do it, they'll talk to you in class, interact with everyone …yeah I like it when teachers do that, it actually inspires kids to learn." (High school student)

"I think he has helped us learn… or he has helped me go to my classes and he has gone out of his way to make me feel comfortable in the classes that I have. There were some classes where I didn't have good relationships with either teachers or some students, so he pretty much put me in a class that made me feel comfortable and once I went in there, the teachers were welcoming and they helped me learn new stuff." (High school student)

"We have just focused on listening— not teaching." (Staff working with rangatahi struggling to engage with school and a pattern of low attendance)

Supporting evidence

Relationships between and among children and adults are a primary process through which biological and contextual factors influence and mutually reinforce each other. Relationships that are reciprocal, attuned, culturally responsive, and trustful are a positive developmental force between children and their physical and social contexts. (Osher et al, 2020)

The neuroscience is clear. When students are in an environment where they feel safe and have a sense of belonging, they find it easier to learn. (Kaufman)

Some rangatahi feel like some of their teachers do not care about them and only see teaching as a job.

For rangatahi with more complexity in their lives, it may only take one negative experience with a teacher to derail their formal education journey.

"My social studies teacher used to come to class, and she used to say to us "I hate kids. I hate children."" (School leaver living in Manurewa who attended another school outside of Manurewa also in South Auckland)

Supporting evidence

A recent study of rangatahi who regularly skipped school completed in 2019 found that students would start "wagging" with one class by detaching from peers, teachers or learning. The students shared that they didn't think their teachers or school cared about them or took their problems seriously. They found a community outside of the classroom with whom they could relate and could avoid the anxiety they felt inside the classroom. (Baskerville, 2019)

Some alternative education spaces have created a sense of belonging for students who have previously struggled in mainstream education.

"Ever since I have been coming here, it has made me want to learn. Like how they do that one-on-one learning and it gives you more understanding of the work." (Student in alternative education)

"Just like at school, I felt I was different to everyone else and my mentality was older than everyone. And when I came here, everyone was just like me and it felt like home." (Student in alternative education)

Role of a significant adult as a protective factor

A significant adult whether a parent, coach or mentor has a positive impact on outcomes for family and for students with parents without headspace this is even more important.

Rangatahi who have champions in their life are more able to overcome negative experiences with teachers and with learning. The absence of a significant adult can contribute toward the experiencing of 'toxic stress'. Children and young people we spoke to notice and respond to adults' hopes or aspirations for them.

"Yeah my dad motivates me and will say don't let this beat you." (Secondary school student)

"...we had a meeting and I fought for him saying look he's not with me at the moment, these are the issues that I've seen, I'll be happy to take him under my wing and give him strict restrictions. And we follow those restrictions, so I've had him for the last term of school and he goes to school well dressed and he's confident, he's now stopping fights instead of creating them and he's concentrating on school." (Parent and significant adult)

"They (relatives) made sure that I was going to school every day, but then I moved back to my mum and everything just dropped again, do you know what I mean? I just didn't like sports anymore." (Student in alternative education)

Supporting evidence

Toxic stress refers to intense, frequent, and/or prolonged activation of the body's stress response and autonomic systems in the absence of the buffering protection of adult support. (Savaii).

Sustained accumulated and severe stress can significantly affect executive functioning including how we understand problems; the ability to reason clearly, set goals, navigate challenges; how we delay gratification; and regulate emotions. (Center on the Developing Child; TSI, 2017)

Conditions of extreme stress reduce family's and young people's bandwidth and capacity to cope or to move out of poverty. (Growing Up In New Zealand, 2015)

Building resilience of rangatahi coping with trauma and toxic stress.

Some educators and adults are supporting rangatahi and tamariki with extra challenges and are building resilience at the same time. MH has created a new programme, Te Ara Hou, for students struggling with attendance as early as year 9 with a supportive teacher that achieves a sense of belonging, brotherhood and whānau for those students. The focus was on relationships, creating strong bonds with and between the students through team activities like basketball and dance. There was early evidence that these rangatahi were re-engaging with learning despite past difficulties.

"Yeah sometimes I feel our kids, some of my kids when something goes wrong and then they just deflate, let miss do this. Let miss lead the way here, no this happened, you've still got heart, you've still got this amount of energy, use it and I'll just boost you a little." (Teacher with pastoral care role)

"And he's actually had two teachers that he didn't get along with and now he gets along with them like a house on fire. So the first week was like just go to class, sit there quietly, second week go to class—say "hello I'm here", then third start trying to communicate saying "Look miss, I'm sorry I was really bad back then but I really need a hand or I don't understand something" that's where it opens." (Caregiver)

"He's now stopping fights instead of creating them and he's concentrating on school..." (Caregiver)

"We have just focused on listening— not teaching." (Staff member working on new initiative for students struggling with attendance)

"Something I'm proud of is getting my attendance up since I've been term 2 and I'm meeting this fellow and the other boys, both have a stronger bond together and yeah" (High school student, Te Ara Hou programme[1]) .

Supporting evidence

"There are many schools across the [US] that are trying to be trauma-sensitive, understanding how to recognize the symptoms of toxic stress, how to differentiate a child having a fear response from one who is just being wilful or difficult. There are a lot of kids right now who are being told that they are bad, who are being suspended or expelled, when really the underlying problem is a biological one, with the over-reactivity of their stress response." (Burke-Harris, 2018)

Building psychological safety is harder with some students than others. This behavior may result from trauma or chronic stress in the student's life (such as having a learning or thinking difference or growing up as part of a marginalized group). This can cause them to feel threatened in situations that other students find harmless. The brain learns that the environment is not safe and remains on alert to potential danger... Over time, when students are surrounded by people they trust, their threat detection system is less likely to activate, and they're better able to learn. (Kaufman)

[1] Manurewa High Innovation

There is a gap between what students say they want and what they experience from some teachers

Some teachers repeat the same strategies and explanations for students when they are struggling to understand. Some teachers are not equipped with a full kete.

"But if there was one thing I would change it's the way teachers teach, like they teach they will write on the board and expect students to copy without knowing what's on the board. I would want, you know, teachers to walk around the class, ask students, interact with students and see how they're going, but sometimes teachers sit back behind the screen."

"If you're say a fish and then they tell you to climb a tree or something, you're going to think you're dumb your whole life because you can't climb a tree and you're a fish. Fish don't climb trees; they swim."

"Like explaining like the work for you to the children actually, like not explaining it and then half of the class don't even know what the f*** he is talking about." (Alt Education student)

Supporting evidence

Key Insight 4 "Teach me the way I learn best" in the Office of the Children's Commissioner report 'Education Matters' shows that "children and young people want to be taught in ways that work for them". (The Office of the Children's Commissioner, 2018a, pp 29–31)

The idea that people have different learning styles whether visual or oral has been discredited (Pashler et al, 2009). However, the science of learning is showing that each child's pathways can be identified, developed, and enhanced. Recognising the individuality of each child is key to unlocking potential.

The OECD's Innovative Learning Environment Project designed 7 principles of learning based on extensive research findings on different aspects of learning and applications. Principle number 4 "Recognising individual differences" stresses that "the learning environment is acutely sensitive to the individual differences among the learners in it, including their prior knowledge." (Center for Educational Research and Innovation [CERI], 2010, p7)

Connecting learning with rangatahi wider experiences motivates students but the right support is needed for this pedagogy

Rangatahi like learning that is based on their real world experiences and there are teachers who actively weave in students' everyday lives to interest them and value their existing knowledge. However, in order for student-centred/enquiry-led learning to have beneficial outcomes—teachers and students need the right support.

"Because science can actually be wicked awesome fun, and this week we are making kawakawa balm so I recorded myself walking around the Totara up the back—guys this is kawakawa" (Teacher)

"The main classes that inspired me to learn at school was probably Māori and maths because numbers related to reality. You go to the bank and there's numbers. That's what made me inspired, just numbers and maths, weight mass, all that kind of stuff that has to do with maths and just kapa haka because that brings Māori people back to their culture if they don't know what they're doing at school." (Former student not in education or employment)

"Yeah a lot of people, especially if they're not learning much, because over here the systems like real, we just get taught what we're about to like our assessments they just hand it to us, and they tell us what the subject is all about, like the topic for it, and then we just do our

own thing from there and I think that's where everyone gets lost." (Secondary school student)

Supporting evidence

Students crave opportunities to learn things that matter and are relevant to their lives. Instruction helps students grow in their understanding when it builds on students' prior experience and scaffolds learning by meeting them where they're at… When skillfully combined with direct instruction, inquiry-based learning that is driven by students' interests boosts their motivation and develops real-world skills. (Flook, 2019) It is not an either or between teacher-led instruction and student-centred learning. It needs to be the right mix of pedagogies. How do we support teachers to achieve this? (CERI, 2010)

CASE STUDY

Manurewa Intermediate organises a camp at the beginning of the academic year with a community night market at the school to raise funds for it. Students plan what food they need to buy for camp. This is an intensive effort on the part of educators and students which builds relationships and provides real world learning experience for the students.

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Moving from Intermediate to High School can be really hard

Supportive relationships are a protective factor pre and post transition

It is significantly important for students to be connected to other students, teachers or whānau before they transition from intermediate to high school because this helps them to find their place and fit in. This support for transition needs to continue into terms 3 and 4 of year 9 for a large proportion of students. For some intermediate students social media and social networks were a key source of information about high school and contributed to any fear that some of them had. Some students said they wanted to see what a real day at high school would be like before arriving. High schools often hold open days for intermediate students interested in attending. In some instances teachers of core subjects such as Mathematics, Science or English did not meet students—potentially a missed opportunity to establish a connection with future students.

"I suppose it could be a scary concept, because the magnitude of how big the school is, we're not a big, big school (...) and, they see the bigness of it, so I suppose that would be just the first paradigm to cross over, if you've got family here, well it's a different scenario altogether because there's always that big brother, big sister looking down, looking after you or cousin or whatever." (Youth Worker)

"When I first got here found it a little bit hard because had to, different periods had to walk to different classes, not, I wasn't used to that stuff, got used to it. Oh and learning was a bit different, a little bit harder than usual, found that a bit hard. Mine was when I first started last year in term 3—I was like different then I would hang off anyone cause I didn't know anyone but then when it came like around term 4 that's when I everyone, hanging round with them and yeah." (High School student).

"Coming from intermediate to high school felt like I already knew most of the students from my age level. So yeah, I didn't really feel like scared or anything, I was just excited to come to high school and learn new things and join into new groups and meet new people too." (High School student)

Supporting evidence

School-based research has indicated that in order to be educationally effective, a school learning environment for emerging adolescents should promote both academic and social development together. (Ministry of Education [MOE] 2008)

Finding 2: When things change for me, relationships are really important. We heard that children and young people sometimes leave their peer support networks behind when they move schools. (Office of the Children's Commissioner, 2018b, pp 10–12)

Choices and pathways for all

The whiteboard in the illustration shows:

$$3x + 2y = 12$$
$$5x + 3y = 19$$
$$x = 2/1 = 2$$
$$y = ?$$
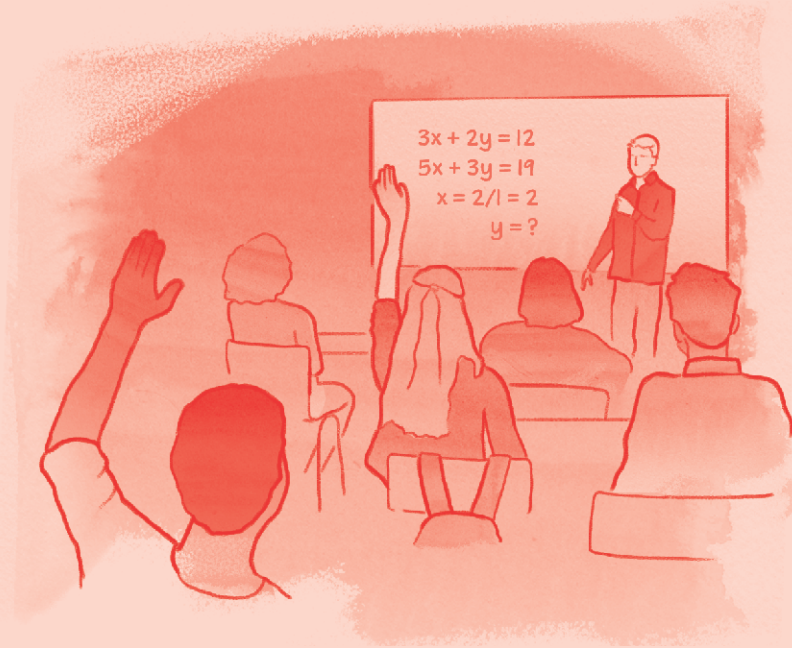
Bridging the gap between school and the world of work

Connecting students earlier in their journey to the world of work and career options, to support learners to make more informed decisions about pathways and curriculum programmes—especially for students on how to get access to employment networks.

"Didn't like English that much and so it was like finish, oh business people they came to a trade thing one day and they said that we needed maths and English cause there's a lot of reading and construction besides books and plans. I was like oh so .. like try my best just to like overcome this English." (Secondary student)

"With jobs and stuff, it helps with your CV so that … most of my classes is project work and working on writing and methods. So, we have been dealing with Fisher & Paykel on a project to get algae into biofuel and so it is a lot of writing and working together and communication and teamwork." (Secondary student)

Supporting evidence

The more young people encounter employers whilst in school (4 or more often being cited), the more they earn and the lower their chances of becoming Not in Education Employment or Training (NEET) as young adults (Education and Employers Trust, 2013, 2014, 2016, 2017)

Sportsperson is by far the most common occupation New Zealand children would like to have. They're around three times more likely to want to be a sportsperson than a vet or a police officer (which are the second and third most popular choices). (Tertiary Education Commission, 2020, p8, p16).

One study found that in New Zealand, students' career choices are most strongly influenced by people employed in the types of roles students were interested in.

Financial insecurity at home influences rangatahi learning and pathway decisions

Financial stress at home is impacting what success looks like for rangatahi in Manurewa. Success is spoken of in terms of achieving financial security. There is extra stress and weight on students' shoulders whose primary driver is to gain employment to support whānau. Especially when they cannot access pathways to achieve this outcome and are not exposed to different experiences or perspectives.

Supporting evidence

Ten years after the GFC, income analysis carried out for TSI-Lab found that the average increase of annual gross income nationally for Māori and Pasifika was only half that of other ethnic groups (Harmonics, 2019).

Recent analysis considering occupation, pay and ethnic group, shows that Māori and Pasifika remain relatively clustered in low-paying occupations compared with other ethnic groups, and are still paid less for the same jobs (Figure.nz, 2020).

Following the patterns of industry impact of the GFC, Māori and Pasifika are also likely to have been disproportionately impacted by the COVID-19 lockdown of (already low-paid) retail and hospitality industries, and construction and manufacturing as reported in the latest industry data updates (Wilson, 2020; TSI-TWI, 2020)

Students need support to connect learning decisions with goals and aspirations

Students who are goal oriented get support or have support to access pathways. Students who don't have knowledge of what they want or their goals are more influenced by factors outside of their aspirations. They do what they are told and make decisions which are limited by timetabling. It is not self-determined.

"That's my teacher because our goals for [school programme] is to get our attendance up and like get ready to go back to mainstream yeah so can carve up in there." (Secondary student)

"I think you are not really hit with such distressing or emotionally complicated situations until you get to the senior school when all these conversations around your future, your career, what do you want to be and how are you going to get there—they really start to act as a deadline and so it can stress a lot of students out." (High school pupil)

"I think often too many... it is changing now, but too many people leave school not knowing what they want to do, which is a slight on me and my industry because we have had five years to try and get them believing in something and having aspirations to do something." (High school staff)

"I have got help from our Form Teacher and also my parents too. Because my options for next year were hard to choose because I had to choose between sports and what I want to do in the future because what if I don't make it into sport; what is my backup plan? So, I had to choose between that and I think my Form Teacher really helped me and he gave me choices and he also balanced it for me." (Secondary student)

Supporting evidence

Schools' role in shaping children's future career aspirations can be a result of interests or skills developed at school, positive experiences at school, or interactions with individual teachers (Tertiary Education Commission, 2020, p11)
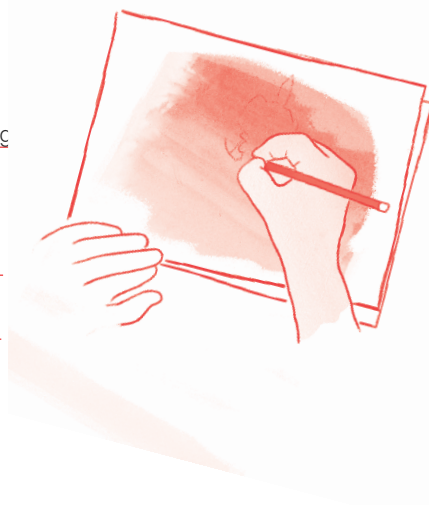
Some Māori and Pasifika students are filtered out of key pathway subjects

We heard that core subjects like Math are a problem. There seems to be a big jump from intermediate to high school and there appears to be lower expectations for Pasifika and Māori students and classroom practices that reinforce this. Bias and racism appear to be a factor. This greatly reduces their career options and future income.

"Oh like for my class cause there was this student in my class she was in like her and the teacher wasn't just, wasn't a good connection between them and so she would go to another maths teacher to ask for help and that maths teacher would help her and she would just help us. So we get to other teachers." (Secondary student)

"Yeah cause a lot of kids they are Pacific Islanders too and like they struggle, they are sometimes behind and teacher will be all like... I'll just give you up to 'achieve'." (Secondary student)

"Our maths teacher was a bitch... He didn't explain anything..., He just writes anything on the board and then just pisses off." (Student in alternative education)

Supporting evidence

Data shows that despite record numbers of students gaining the National Certificate of Educational Achievement (NCEA) last year, at every step Māori, Pasifika and low decile students are getting a different kind of NCEA to students from more affluent, Pākehā and Asian backgrounds. (Johnston, 2016)

In a study of maths teachers, a researcher found they predominantly had very negative opinions about their Māori students (Turner et al, 2015) .They had very low expectations for them. They blamed the students themselves for not being as competent as other ethnic groups and they blamed the students' families.

Currently only one percent of Māori are employed in the computer and mathematical job family. This suggests Māori are at high risk of being disproportionately harmed by changes to the work in the future and least likely to benefit from the opportunities these changes will create. The need to revolutionise our education pipeline is imminent. Creating educational spaces that reflect the changing demographics will have long-term positive effects on achievement and career pathways. (Schultz & Green, 2017, p12)

Rangatahi are motivated to give back despite barriers
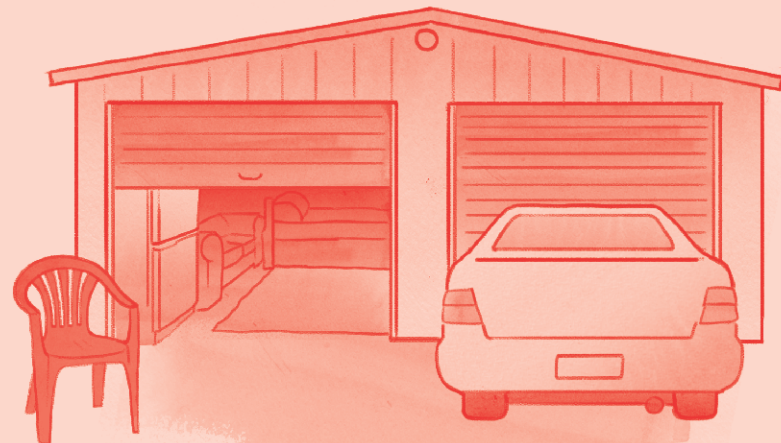
Many students identify income when asked about wellbeing. They are concerned and stressed by their whānau financial struggles even at intermediate school age. Insecure housing and chronic disease is in the background for many students. Communication and mental health also feature.

"Just like … and … said, to help your whānau. Maybe get a well-paid job so you can help them with life struggles and stuff. Financial struggles is what I would like to help them with the most because we are not financially stable." (Intermediate student)

"Healthy whānau, like the mum and dad—there's taking care of yous you know and feeding yous, make sure yous got clothes and roof over your head. And yeah just looking after you and your siblings." (Student in alternative education)

Supporting evidence

In 2016 the income gap between South Auckland and the rest of Auckland was about $12,000 per year (30%).(TSI-TWI, 2020, p5)

South Aucklanders were working more hours and getting paid less than other Aucklanders for many of the same types of jobs (Harmonics, 2019).

47.3% of Pasifika people and 36.8% of Māori people were living in a crowded house in the Manurewa Local Board. (Stats NZ, 2018a; Stats NZ, 2018b)

Rangatahi in Manurewa are showing amazing resilience. Some face real challenges at home and still go to school or get up to go to their education provider. Many rangatahi we spoke to had households struggling with income, addiction, violence at home and conflict at school. Many rangatahi would respond "It's all good"—as if resigned to their situation.

"The family is full of jailbirds and yeah, that is where I was heading off but then I had to realise the responsibility to look after my family at home." (Student in alternative education)

"Yeah, when I see my family struggle, it makes me want to learn and makes me want to become better. They don't want to be like that and I don't want them to struggle any more." (Student in alternative education)

"What do I want for the future? A life out of South Auckland. Hard!" (Students in alternative education)

"I had a struggled life until I met my Mrs and I just want to move out of Auckland and be based where there is no bad people or anything. No bad influences. I just want a happy neighbourhood, like on TV what you see in Neighbours." (Student in alternative education)

Giving back to whānau is a key motivation for rangatahi

The aspirations of rangatahi in Manurewa centre on helping their whānau, community and future generations. There is a strong driver to give back to parents and whānau who have sacrificed for them. This is true also for rangatahi who are facing significant adversity.

"I just want my whānau to be well off. I don't want them to have to worry about anything anymore. Straight up, everyday's a struggle and I don't want that anymore. I know when I make … straight up, my whānau coming with me." (Rangatahi not in education or employment)

"Yeah I like working with, I like working with families, kids as well need help financially and like with some of their things cause like that bit in here South Auckland where I stay so I like to give back to communities, that's what I'd do if I was to retire." (from sports career). (Secondary school student)

"I think it's a good thing that we all understand the concept of hard work and sacrifices our parents have made for us because that just pushes us even more to do better in school and to achieve our dreams." (Secondary school student)

"They know what sacrificing is because my mum sacrifices for us hard bringing us up. My mum tells us, "You've got to sacrifice this if you want to get there," and that's why I understand. Yeah, all good. Got to sacrifice here and there is all good because at the end of the day I want the big picture. We're not looking for tomorrow. Yeah, we're looking for centuries. I'm looking at centuries." (Rangatahi not in education or employment)

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MANUREWA
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Core subjects need to be culturally grounded to achieve equity

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Culture and identity are championed in school but it needs to be embedded into core subjects

We heard that students feel included because of cultural activities like Polyfest and languages weeks. However, we also heard that culture is not often integrated into some classrooms. It is appreciated by students and rangatahi when it is. An authentic experience of tikanga during a noho marae has had a positive impact on rangatahi school leavers.

"So I'm so amazed because they can actually kōrero you know in Tongan now, but they've also incorporated cooking, just the daily aspects of being Tongan, so they've incorporated all of that, and recently my daughter had camp and they did like, what was it, so in their culture they have like, you know the dances that they do, so from the start to the beginning they did, so they practiced this from the beginning of the year, and they did it recently just in July, and it incorporated all of you know how it's run and everything, so they love it." (Parent of child in a bilingual unit)

"So, they understand that in a Te Reo Māori space the most important thing is about understanding what Tikanga is all about and acknowledging those people who awhi you. Yeah. That's why the chef is so important…. Yeah, and that's why we sort of designed the programme where, if you have your uncles, your aunties and

you have the … in the kitchen. But that one there is also the one that goes—hey! And catches them out all the time. And then you just have those people who can come in and out and then they see examples set by us. That's the magic in it, you know?" (Provider)

"Probably whānau. Also, the previous noho that I have been on this year, they have probably shaped me into becoming a better woman. Like, building my confidence up and learning to open up more to everybody." (Rangatahi not in education or employment)

Supporting evidence

"Our [MOE] Best Evidence Synthesis shows that children and young people need to have an education that connects with them personally, connects with their learning, and with their language, culture and identity." (Holsted, 2017)

Key Insight 1 "Understand me in my whole world" in 'Education Matters' from the Office of the Children's Commissioner shows how "children and young people want to be seen for who they are, and to be understood within the context of their home, life and experiences." (2018a, pp13-17)

Insidious impact of unconscious and conscious bias

We heard that Māori and Pasifika students are still experiencing racism. They are filtered out by the formal education system which accentuates white privilege and denies the opportunity for Māori and Pasifika to participate in meaningful career pathways. It makes a difference when teachers have empathy and see all student potential.

"It is just pretty much like you have that specific culture to be treated fairly. If you like Māori or islander, then you are pretty much just treated like shit." (Secondary student)

"Yeah I think there is definitely a stigma I guess associated with our community about performance and whether you are expected to perform." (Secondary student)

"Oh like the other Pacific students in my class, we sit at the back because to avoid in a way cause we used to like sit in the middle but like now that he doesn't like we don't know anything or like his teaching isn't useful for us cause he teaches like too fast or something and we just sit at the back and we just chill." (Secondary student)

"I'd rather probably be at intermediate cause not as much responsibilities and stuff and cause yeah just have to do lots of work and I just didn't understand any of it. And I didn't really like to ask for help so I'll just try do as much as I could. Can I ask why you didn't like to ask for help? Cause I was just shy." (Secondary student)

"My English teacher she was pretty straight up especially encourages us—she hates racism, I don't know if that's the right, but she loves us Pacific Islanders and it's the way she explains stuff to us that makes us want to learn. But she tells us to write essays for our assessments, she will tell us to write about where we come from to get that. And I think that's what inspired me to learn more." (Secondary student)

Supporting evidence

The Office of the Children's Commissioner also supported this insight in 'Education Matters' Key Insight 2: "People at school are racist towards me". "Many children and young people told us they experience racism at school and are treated unequally because of their culture." (2018a, pp18–21)

"We heard racism is a daily reality for many Māori students from a young age. You said poor expectations,

stereotyping, a lack of respect and negative attitudes towards students and whānau are all types of racism." (Ministry of Education, 2019)

"Human development occurs through reciprocal coactions between the individual and their contexts and culture, with relationships as the key drivers. Relationships and contexts, along with how children appraise and interpret them, can be risks and assets for healthy learning and development, and their influence can be seen across generations and can produce intra– as well as intergenerational assets and risks". (Osher et al, 2020)

What we learned in Manurewa: Systems insights

Understanding the brain, empathy and learning: most secondary teachers do not get taught about the brain

While researchers once thought that early childhood was the only major period of brain plasticity, or adaptability, research now shows that adolescence is a second period of increased brain plasticity, making adolescence a critical period for students and educators. How can more secondary teachers be supported to translate the latest science into practice?

"Human learning is primarily a relational enterprise. Empathy is a part of that. I'm convinced that if you teach empathy for the teachers, the kids' grades go up… I would retrain teachers so that they are the cognitive neuroscientists of learning."

John Medina, University of Washington

The Adolescent Brain

The learning environment plays a significant role in brain development. As adolescents perform complex mental tasks, the neural networks that support those abilities strengthen, increasing their cognitive, emotion-regulation, and memory skills. Without opportunities to use these skills, those networks remain underdeveloped, making it challenging for individuals to engage in higher-order thinking as adults.

The adolescent brain evolved over tens of thousands of years to take risks, seek rewards, affiliate with peers, and crave sensations because these traits were adaptive to leaving the parental nest and going out into the wild to find food, mates, shelter, and other things necessary for survival… The bright side of this vulnerability is that teens are primed to be positively influenced by role models. (Armstrong, 2016a)

Using peer teaching and collaborative learning in the mix of teaching strategies will likely engage adolescents. (Armstrong, 2016b)

During adolescence, individuals face an increased risk for certain health issues that can affect their behavior and ability to learn. (Alliance for Excellent Education, 2018)

Impact of stress on learning

"Trying to stay alert, green brain instead of moving into that red brain when something has happened. Just trying to think positively and keep a calm mind." (High school student)

Children and young people learn far less if they are working from the brain stem which governs our instinctive survival mode rather than the neocortex which governs thinking.

In students, this might look like:

- Avoiding assignments
- Putting their head down
- Yelling or making negative comments
- Walking out of the classroom
- Acting out physically or aggressively

Impact of Toxic Stress on Executive Functioning skills

The impact of cumulative stress (toxic stress) in childhood due to adversity ultimately impairs the development of executive functioning skills.

Executive function and self-regulation skills depend on three types of brain function: working memory, mental flexibility, and self-control. These functions are highly interrelated, and the successful application of executive function skills requires them to operate in coordination with each other. Each type of executive function skill draws on elements of the others.

- Working memory governs our ability to retain and manipulate distinct pieces of information over short periods of time.
- Mental flexibility helps us to sustain or shift attention in response to different demands or to apply different rules in different settings.
- Self-control enables us to set priorities and resist impulsive actions or responses. (Center on the Developing Child, 2015)

These skills are crucial for learning and development.

Along with early childhood, adolescence is also a vital "window of opportunity" for learning and practising them.

Secondary teachers not equipped to recognise neurodiversity either

Only a very few rangatahi during the interviews referred to accessing special assistance that would be categorised as learning support and only specifically asked. We heard various opinions about learning support from various parts of the education system:

- There is not enough support to match the need
- The existing support is not accessed
- Some of the support may not be culturally appropriate

Many teachers do not know how to interact with students with neurodiversity or refer for assistance, unless they ask for specific Professional Learning and Development, such as the Incredible Years as part of the PB4L MOE initiative. The result is that many people rangatahi and whānau are not receiving the extra support they may need and are entitled to which exacerbates inequity.

Māori and Pasifika students are expected to thrive in a system that is not aware of its own Pākehā bias

It is difficult to tackle the inequity faced by Māori and Pasifika students if the system is designed by Pākehā for Pākehā even with the existence of Māori medium schools. Mainstream schools who are trying to cater for Māori and Pasifika students in a holistic manner are forced to overcome barriers in the system dominated by a Pākehā worldview. The ways rangatahi are taught, measured and assessed are based on a Pākehā system.

The need to be aware of the system bias and discrimination applies to educators of all cultural backgrounds as everyone has adopted the dominant Pākehā education system.

More Māori and Pasifika teachers are needed in all subject areas.

"The English-medium classroom does not speak the language of our children. It does not include their Māori ways of knowing in the curriculum, nor does it hold any of their ancestors up as role models of academic excellence." (Webber & McFarlane, 2018)

"I have never seen a brown science teacher before and that would be cool to know that someone in your culture knows this stuff so that means that I am able to learn it as well, sort of thing." (Youth worker)

Supporting evidence

"A culturally responsive pedagogy is necessary because as Pākehā culture has long been accepted as the mainstream or norm in New Zealand, many teachers are unaware of the influence it has either on them or the education system. There is also a necessary judgement in what knowledge is valued by society and represented as being "official" and legitimate in the classroom through decisions about what is assessed and how this assessment is carried out. Such judgements cannot help but have significant implications in culturally diverse nations, such as New Zealand, because of the contestation over what constitutes legitimate knowledges within neocolonial settings." (Mahuika et al, 2011; Webber & McFarlane, 2018))

Intergenerational trauma is the elephant in the room. The team learnt from some ethnographic research carried out by Manurewa Intermediate that many Māori whānau had had negative experiences of school as tamariki and it cast a long shadow. Some parents didn't think they were "good" at school and so it would probably be similar for their children.

Participants in the MOE's Kōrero matauranga also expressed concern for whānau who had experienced trauma and loss of language.

Students who need the most support often end up in environments with the least resources

Alternative education students have supportive relationships with their tutors, but are working in poorly resourced learning environments. Job and career outcomes for rangatahi after the alternative education pathway are unclear and they do not have access to funding for career transition available to year 11 and above in mainstream education. Funding comes too late for the students already visibly at risk of disengagement. We also noticed that one group of alternative education students all had older siblings who had also attended alternative education.

Supporting evidence

Only a very small percentage of rangatahi who enrol at alternative education providers return to mainstream education or go on to achieve NCEA qualifications.

A recent cabinet paper "Redesigning alternative education: An end-to-end system of support for children and young people at risk of disengaging from education from 2019" stated that the education system is failing to support a significant group of ākonga, who are becoming disengaged from their learning journey (Ministry of Education, 2019b).

Promisingly the paper also outlined a proposal for the ideal future state for alternative education. Once this is implemented, it will provide an end-to-end continuum of supports that are more strongly integrated within the wider education system. There will be a new model of alternative education, which will be referred to as intensive provision until we decide on a new name. This new model will provide intensive support for ākonga who are disengaged from education at either an on-site or off-site location. (ibid)

Schools are already resourceful and innovative

Manurewa High School focused on relationships and valuing different learning through their existing prototypes Hau ora and Kaitiaki time.

Their new Te Ara Hou programme for students struggling with attendance in years 9 and 10 also focused on listening and empathy, building trust and feeling safe in a learning environment to then be able to support building of executive functioning skills.

There was a lower ratio of students to an empathetic teacher. And these students still had access to the resources available at school unlike counterparts in alternative education.

Through the Kāhui Ako, Manurewa Intermediate created and developed a special role or an empathetic and skilled educator to support tamariki, rangatahi and whānau with extra challenges or complexity in their lives to help navigate the transition from intermediate to high school.

This role focused on stable empathetic positive relationships and building resilience. These key elements of the role resonated with the work of Tūhono Tangata ki Kāhui Ako in Rotorua. (See Rotorua Case Study)

Supporting and scaling innovation within and across schools requires a lot of work

Conditions for school innovation:

Change takes time and a lot of support

Support across staff and whānau are required for implementing new ways of working. There is work in striking the right balance of innovation and continuity for students and staff who need some structure and predictability.

Leadership that supports innovation is key

This equates to empowering staff and supporting new ways of working, making changes and improvements where required as testing of new ideas evolves

For leadership the issues are complex and complicated

Schools are each juggling budgets, staffing and infrastructure concerns, making room and space for new practices on top of heavy workloads is tough—some of these responsibilities will change with the education reforms.
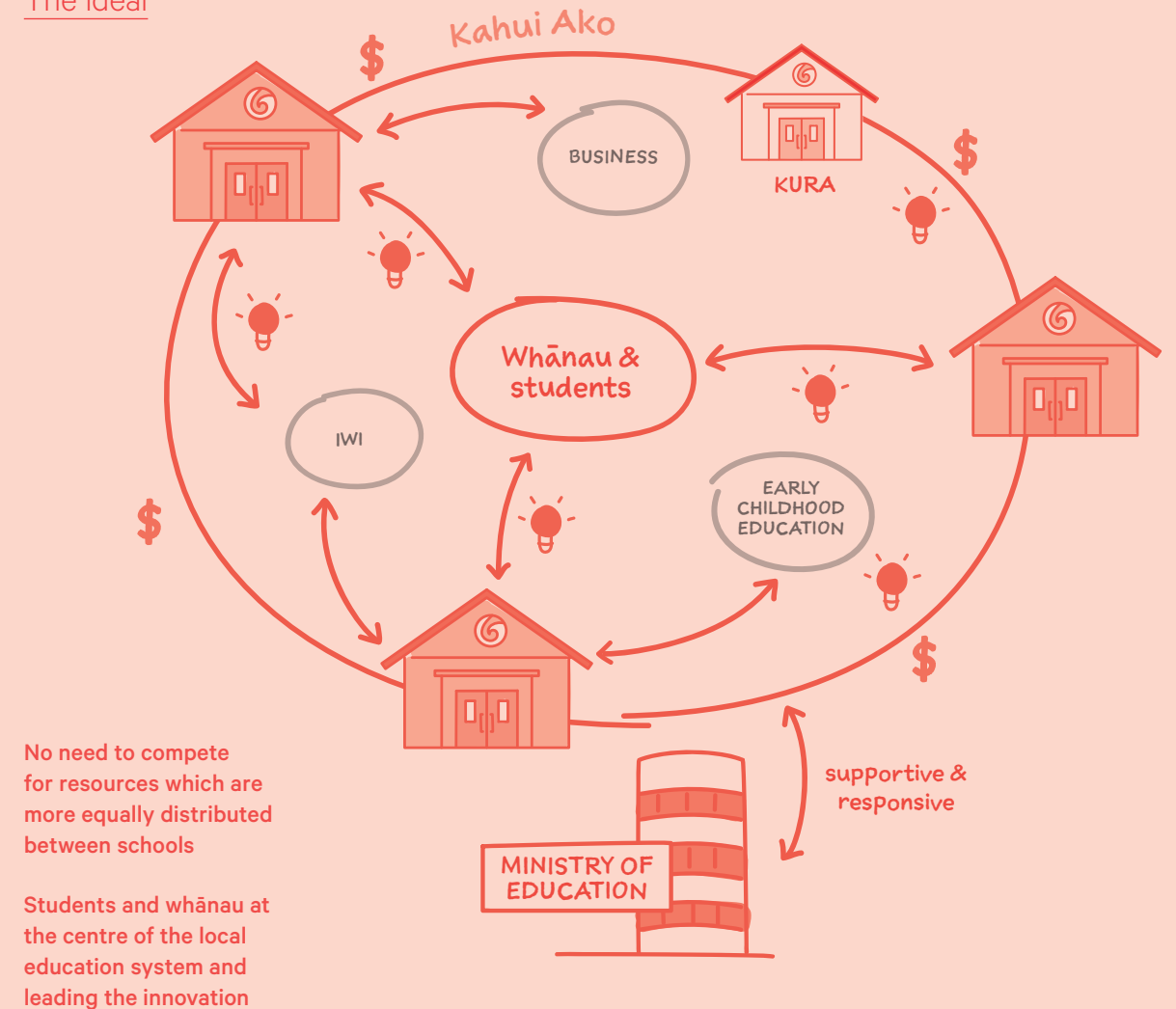
While there are many individuals and schools making an effort to coordinate, collaboration across the system is still tricky

Schools have invested a lot of time and effort in relationships within and across schools. One example is the Kāhui Ako, which is a useful framework for collaboration in a geographical area but it already has many demands placed on it by the system. A legacy of the Tomorrow Schools' system is competition between schools for students, resources and recognition leading to inequity. Recently proposed education reforms may change some of those drivers such as zoning powers. Competition for students

and resources aside, there is still a lack of trust between different parts of the system. The proposed Education Service Agency will need to have people equipped with the right skill set to build trust between different parts of the system and be able to support the sharing of innovation and best practice in a meaningful way between schools, kura and other providers.

"Too many people in the schooling system do not trust each other or understand the contribution that each makes to the whole. This is particularly noticeable in the relationships between schools/ kura and education agencies, but also between schools/ kura." (Tomorrow's Schools Independent Taskforce, 2018)
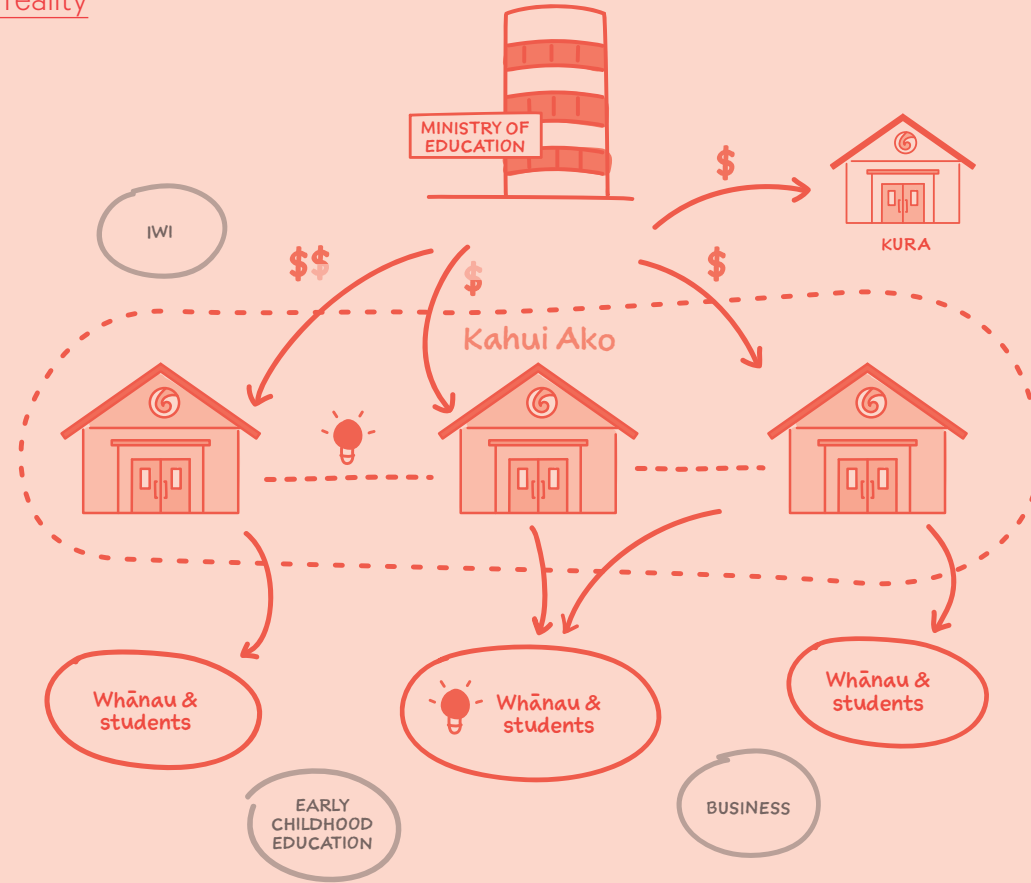
The ideal

No need to compete for resources which are more equally distributed between schools

Students and whānau at the centre of the local education system and leading the innovation

What happens in reality

Schools obliged to compete for resources

Ideas and innovation hard to share despite best efforts

Needs of the top down system more important than those of students and whānau

MINISTRY OF EDUCATION

IWI

$

KURA

$$

$

Kahui Ako

EARLY CHILDHOOD EDUCATION

Whānau & students

Whānau & students

Whānau & students

BUSINESS

The government announced an independent Taskforce to review the 1989 Tomorrow's Schools reforms in 2018. The primary purpose of the Review was to "consider the ability of the current governance, management and administration of the compulsory schooling system to respond to education needs in the future, and to achieve equity and excellence for all children and young people". The Tomorrow School's reforms had established each school as a largely self-managing Crown entity with its own Board of Trustees being responsible for a wide range of administrative and governance functions. This was a very high level of devolution of responsibility to a school community. 30 years

later the Taskforce concluded that while this system worked for many, it had led to inequity in the system for many learners, particularly Māori, Pacific, children and young people with disabilities and learning support needs and those from disadvantaged backgrounds. The education taskforce observed "Our major difficulty is that our schooling system is structured to focus on individual schools, each operating as a separate unit, and often reinventing the wheel or competing needlessly with each other."

What does it take to support innovation and collaboration?

The relationships, roles and responsibilities across ākonga, whānau, schools, Kāhui Ako, and regional and head MOE offices are complex. Understanding the complex system and the dynamic environment is fundamental to how we approach supporting collaboration and innovation with education providers.

The key learnings to support innovation and collaboration are:

- **Working with the rhythm of schools is essential** as they have many competing priorities. Each school is a complex and dynamic environment involving many hundreds of people. In addition to the daily pressures, during the co-design process, there were unexpected challenges like a measles epidemic and COVID-19.

- **It takes time to build trust** in a complex and dynamic system. Co-design is new for some project partners who need time to learn and understand related processes, alongside working with new partners and within existing fledgling organisations such as Kāhui Ako.

- **It takes time to understand and bring together different parts of a complex system.** Collaboration between TSI-Lab, MOE and the Middlemore Foundation created new opportunities for innovation working alongside schools. It took time to build understanding of how things fitted together and for the TSI-Lab to knit together innovation partners to maximise not duplicate efforts led by the community.

- **Complex and competing demands within and between organisations need to be resolved.** There was a tension between time constraints being faced in the MOE head office and the project teams placed-based approach.

- **Innovation impacts can be reduced by adding layers of Business As Usual.** While Kāhui Ako are a useful organising structure, they face demands that focus efforts on delivering externally placed requirements rather than creatively meeting local needs.

- **Past relationships need to be worked through.** Individuals within the MOE have built trust with certain education providers but the MOE as an institution has a challenging relationship with education providers and can be viewed with suspicion.

- **There are benefits from working together and off each other's strengths.** Having MOE team members based physically in the TSI-Lab office on a regular basis improved access to a wider selection of schools as well as alternative education providers. Their relationships and knowledge of young people and the education system particularly in the South Auckland area was a great asset to the design team.

- **Co-design requires flexibility to change.** The MOE identified 3 Manurewa Kāhui Ako to participate, however it was soon recognised that they were at different stages of their ability to be involved. The team made a pragmatic decision to work with one Kāhui Ako and later built on existing relationships and points of coordination to expand to a second Kāhui Ako.

54   Kia mārama mai, kia whakapono mai

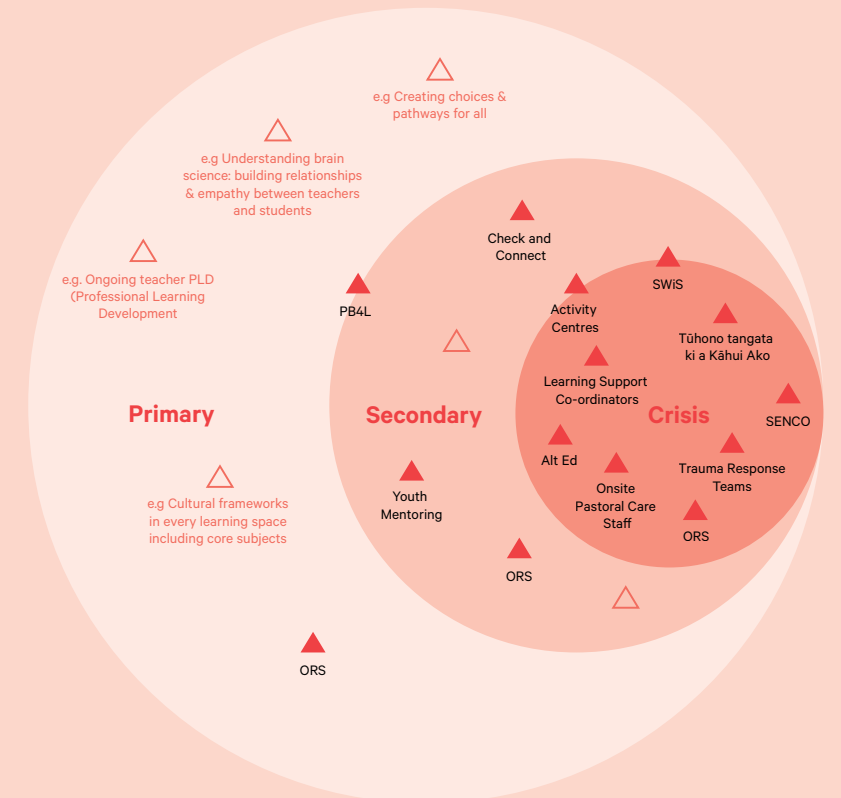Know me. Believe in me   **Systems insights**   55

Understanding existing interventions in the education system aimed at attendance wellbeing and engagement

The design team mapped the different sorts of interventions[1] available to ākonga to assist with attendance, wellbeing and engagement to understand what was being provided and for whom. As the issue of attendance, engagement and wellbeing is complex, the team has borrowed from a holistic population health framework to map existing interventions shown in the diagram below.

A primary prevention intervention is defined as an action in the education system aimed at supporting the whole student body rather than actions targeted at "high risk" individual students. These actions are the foundation needed for all rangatahi to learn: to feel safe, secure, and to have trusted and culturally responsive relationships in their learning environments. They should take into consideration the socio-economic, cultural and historical context of the community where they are being applied. Primary prevention interventions can avoid stigmatisation of a population group and reach students who would typically be overlooked due to a lack of obvious risk factors. In the context of what we know for many students and their families, these actions should also incorporate healing too, in order to address intergenerational trauma and the impact this has on the starting point in education for many tamariki and rangatahi Māori and Pasifika—as a means to help halt the cycle that then pushes such young people into interventions further down the track. Strong primary prevention investment is should help avoid the upstream social and economic costs of resource intensive individual responses.

Secondary prevention interventions provide more targeted support to at risk groups and crisis response involves intensive support given to individual rangatahi experiencing crisis. A mix of primary prevention, secondary prevention and crisis responses in the system will always be required as will innovation in all of these spaces.

In the diagram examples of existing interventions in the education system are represented by the solid red triangles which are clustered in the crisis response and secondary prevention space. The clear triangles represent the opportunity areas revealed by the design process which are explained in the next section.

e.g Creating choices & pathways for all

e.g Understanding brain science; building relationships & empathy between teachers and students

e.g. Ongoing teacher PLD (Professional Learning Development)

Check and Connect

SWiS

PB4L

Activity Centres

Tūhono tangata ki a Kāhui Ako

Primary

Secondary

Learning Support Co-ordinators

Crisis

SENCO

Alt Ed

Trauma Response Teams

e.g Cultural frameworks in every learning space including core subjects

Youth Mentoring

Onsite Pastoral Care Staff

ORS

ORS

ORS

1   In this context " intervention" is taking action aimed to solve an educational problem

SOUTHERN
BAKEHOUSE H

COFFEE
TO GO

SMILE!
You are on CCTV

TAKEAWAY
* Fiji Chop Suey
* Fiji Fried Rice
* Fiji Stir Fry
* Fiji Curry

iColour Graphics
DESIGN · PRINT · SIGN
0800 03 03 99

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Kia mārama mai, kia whakapono mai