



Briefing Note: Supplementary analysis of He Whakaaro reports relating to school attendance and outcomes for Māori

To:	Hon. Kelvin Davis, Associate Minister of Education		
Date:	13 March 2020	Priority:	Medium
Security Level:	In Confidence	METIS No:	1223308
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Messaging seen by Communications team:	N/A	Round robin:	No

Purpose of Report

This report responds to your request for additional analysis relating to relationship between school attendance and attainment and wellbeing outcomes for Māori students, following the recent publication of two *He Whakaaro* reports on attendance.

We ask that you:

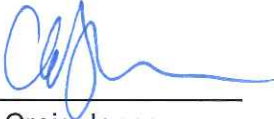
Note that our research indicates the importance of attendance on student attainment, and that improving attendance might be particularly beneficial for the attainment of Māori students.

Note that while attendance is related to wellbeing at an aggregate level, knowing an individual student's truancy patterns is not very predictive of other aspects of their wellbeing. This is true of both Māori and non-Māori students.

Note that the Ministry is involved in a range of activities that can be expected to support attendance outcomes for Māori students. This includes local actions by regional offices and the attendance service, as well as national initiatives such as Food in Schools.

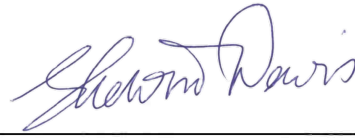
Agree that this briefing will be proactively released as per your expectation that information will be released as soon as possible. Any information which may need to be withheld will be done so in line with the provisions of the Official Information Act 1982.

☒ Agree / ☐ Disagree



Dr Craig Jones
Deputy Secretary
Evidence, Data & Knowledge

16/3/2020



Hon Kelvin Davis
Associate Minister of Education

06/04/2020

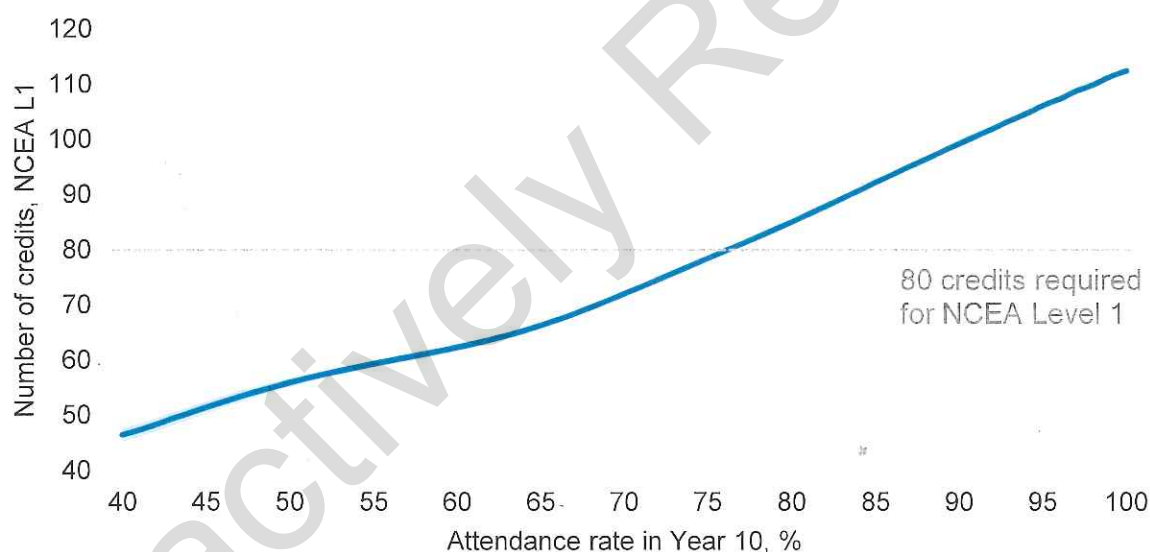
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Background

1. We recently published two *He Whakaaro* research reports relating to school attendance on the Education Counts website. The first of these examines the relationships between attendance and student attainment. The second report uses data from the 2015 Programme on International Student Assessment (PISA) study to examine relationships between truancy and other aspects of student wellbeing. Both reports are attached.
2. You have requested some follow-up analysis relating to the relationships between attendance and other outcomes for Māori students. You have also asked what the Ministry is doing to support attendance outcomes for Māori students.

The first report finds the first absences in a term predict substantial decreases in attainment – especially for Māori

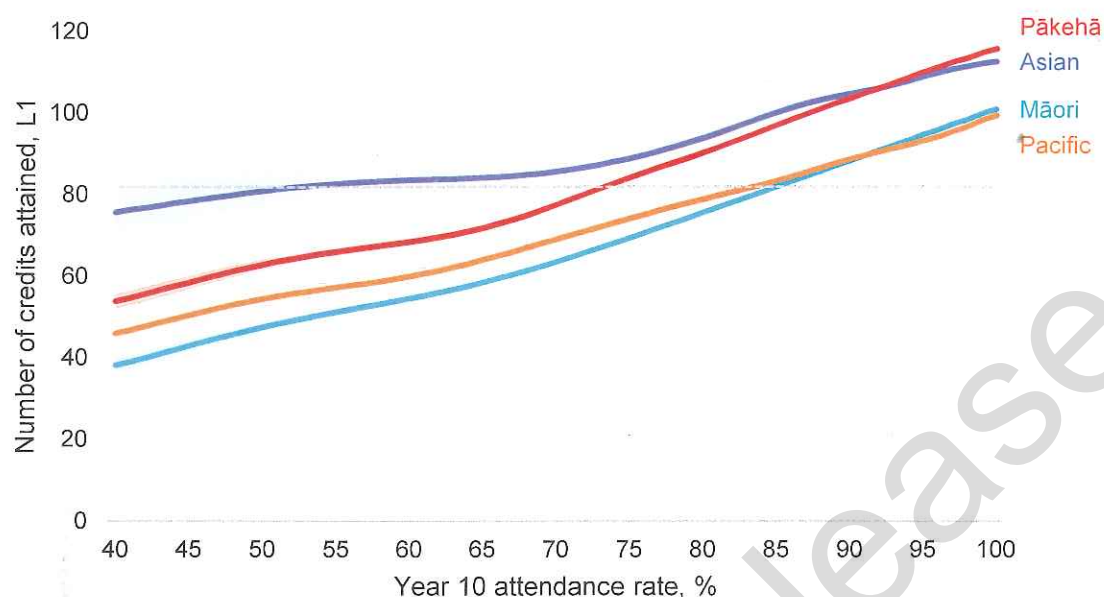
3. The report 'What is the relationship between attendance and attainment?' looked at the shape of the relationship between attendance and subsequent attainment. It found that for most students, this relationship most looks like a straight line (see below figure, taken from Figure 2 of the report). Each absence from school predicts a constant drop in attainment, whether the absence is taken by someone with 100% attendance or 80% attendance. This implies there is no 'safe' level of absence – every day matters.



4. The report also finds that these drops in attainment can be large. The difference in attainment between students with full attendance and students with 90% attendance (still enough to meet the 'regular attendance' benchmark) was between 0.15 and 0.42 standard deviations. This translates to 13 to 15 fewer credits at each NCEA level.
5. The report broke this relationship down by ethnic group of students (see below figure, from Figure 5 of the report).¹ The light blue Māori line is below the red Pākehā line, but more or less parallel to it. The vertical difference between these lines represents known inequities in the education system relating to how well we are supporting Māori students to achieve. The fact that these lines are parallel indicates that an additional absence has similar effect on Māori students as it does on Pākehā students – that is, attainment is predicted to drop

¹ One note to this graph is that students can belong to multiple ethnic groups, and in those cases are included in multiple lines. About one-third of Māori students in this sample also identified as Pākehā.

by about the same amount for both groups. The lines for Asian and Pacific students, however, are noticeably flatter than either the Māori or Pākehā lines. This may be an indication that Asian and Pacific students are more able to recover from absences than Māori or Pākehā students.

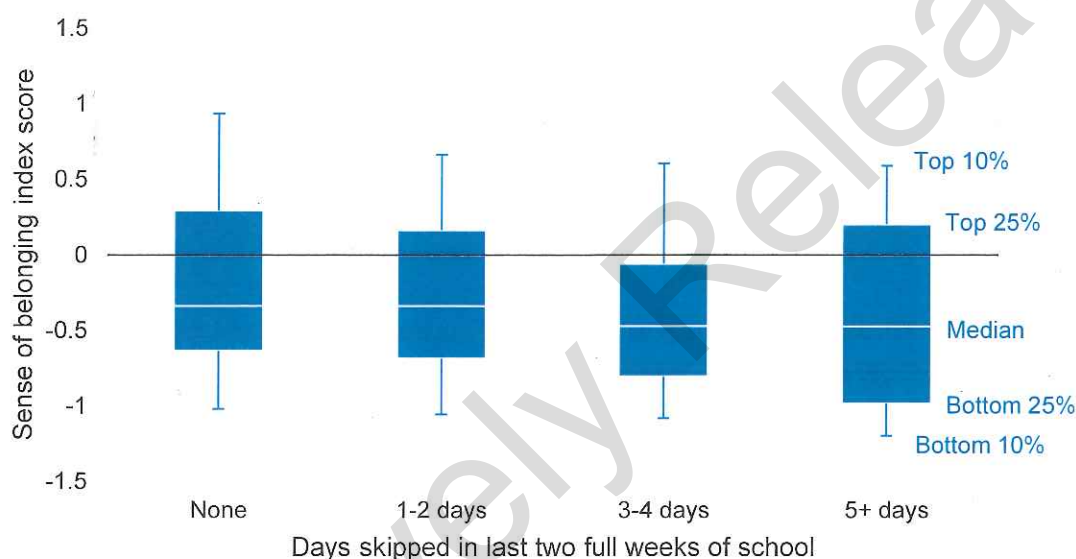


Note: The shaded area on these graphs represent the 95% confidence intervals. These are larger at the extremes of the graph because few students have very low attendance rates.

6. We have repeated all other analysis in the report for Māori students only and found the same broad patterns as those described above. The line for Māori students tends to be below the corresponding line for all New Zealand students, but tends to be approximately parallel. This similarity in slope is likely due to the similarity between the slopes of the Pākehā and Māori lines above, and the fact that Pākehā and Māori students combined make up almost all of the New Zealand student population.
7. These results may mean attendance in school is particularly important for Māori student attainment, for three reasons. The first is that, as mentioned, absences appear to predict a bigger decrease in attainment for Māori than for Asian and Pacific students. The second reason is that Māori students have lower attainment (for a given level of attendance) than other students. The average Māori student crosses the horizontal line representing the 80 credits needed for NCEA Level 1 at 83% attendance, whereas for the average Pākehā student it is 72%, and for the average Asian student it is 49% attendance. This means that while absences predict fewer attained credits for all students, Māori students are on average closer to the 80 credit threshold that would prevent them from attaining the NCEA qualification.
8. The final reason why attendance might be particularly important for Māori students is that school attendance rates for Māori are lower than the national average. The 2019 attendance data (released at the same time as these two *He Whakaaro*) indicates that 44% of Māori students attended school regularly in 2019, compared to 58% of all New Zealand students. This means that, putting aside any differences in the slopes of lines in the above graph, the average Māori student is 'further down' the line than the average student from other ethnic groups, and is predicted to have lower attainment. Our research indicates that strategies to improve attendance could have substantial positive benefits on student attainment. The findings for each ethnic group indicate that these benefits might be particularly large for Māori students.

The second report finds that truancies predict other aspects of wellbeing well at an aggregate level, but poorly at a student level – for Māori and non-Māori

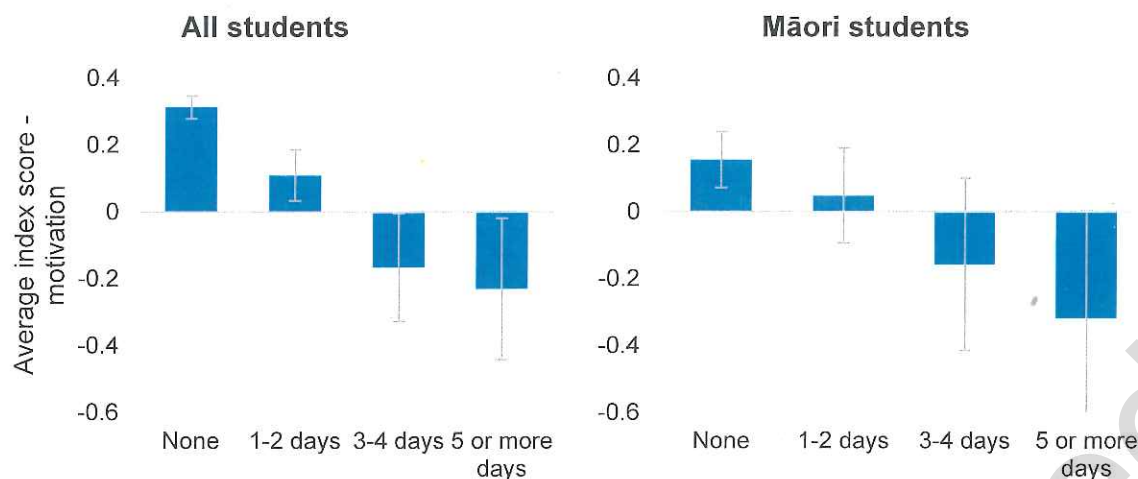
9. The report 'School attendance and student wellbeing' used data from a 2015 survey of 15 year old students, and examined relationships between the self-reported frequencies of truancies and other aspects of wellbeing, such as sense of belonging, anxiety, motivation, experiences of bullying, and unfair teacher behaviour. It found that students who reported skipping more school in the previous two weeks on average reported statistically significantly lower outcomes in each of these other wellbeing domains.
10. The report also found, however, that there are many 'outlier' students – for example, students with no truancies but low sense of belonging, or students with a high number of truancies but relatively high sense of belonging. The figure below (taken from Figure 7 in the report) shows that there is much more variation within each truancy category than between them. This means that knowing a student's self-reported frequency of truancy does not give us a very accurate view of other aspects of their wellbeing.



11. We repeated all analysis in this report for the subsample of Māori students in PISA.² We found broadly the same results as those in the report. The below figures compare the patterns between truancies and average reported motivation for all students (on the left) and for Māori students (on the right). There is much more uncertainty around the estimates that only include Māori students, however. This is because Māori students make up a small part of the 2015 PISA sample – of the 4,520 students surveyed, only 875 were Māori. This uncertainty means that the confidence intervals (represented by error bars on the graphs) are much wider for Māori students than for the full population, and mean it is harder to rule out that any differences between the graphs are due to chance.³

² Note that PISA does not include students enrolled in Māori medium education.

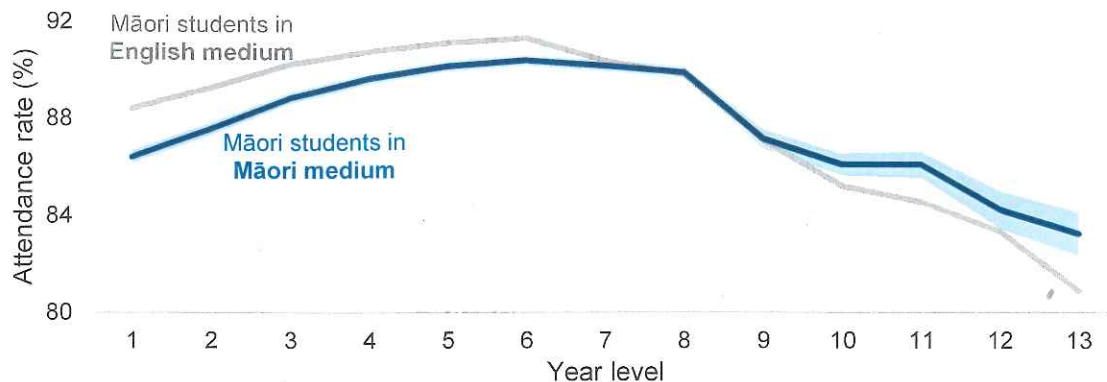
³ Despite the wider confidence intervals in the Māori sample, Māori students with more truancies still reported statistically significantly lower average wellbeing outcomes in all aspects other than sense of belonging.



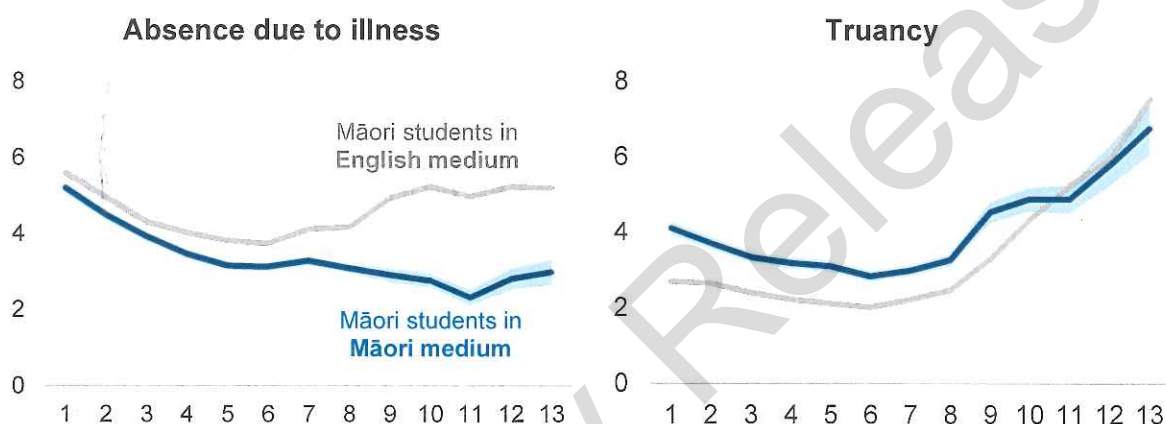
12. This report has several implications for the wellbeing of Māori students (as well as other students). The first is that a student's attendance is not an accurate proxy measure for other aspects of their wellbeing. To assess student wellbeing holistically, the education system needs to collect and analyse attendance information alongside other measures of wellbeing, including student voice. The second is that it is not likely to be helpful to generalise as to the causes of non-attendance. While it is likely to be true that some students miss school due to experiencing bullying from other students or unfair behaviour from teachers, there are also very large numbers of students (Māori and non-Māori) who truant despite not reporting these experiences. The causes of non-attendance are likely to be highly personalised, which makes improving attendance across the whole population more challenging.

There appear to be some differences in attendance and the relationship with attainment between English and Māori medium education

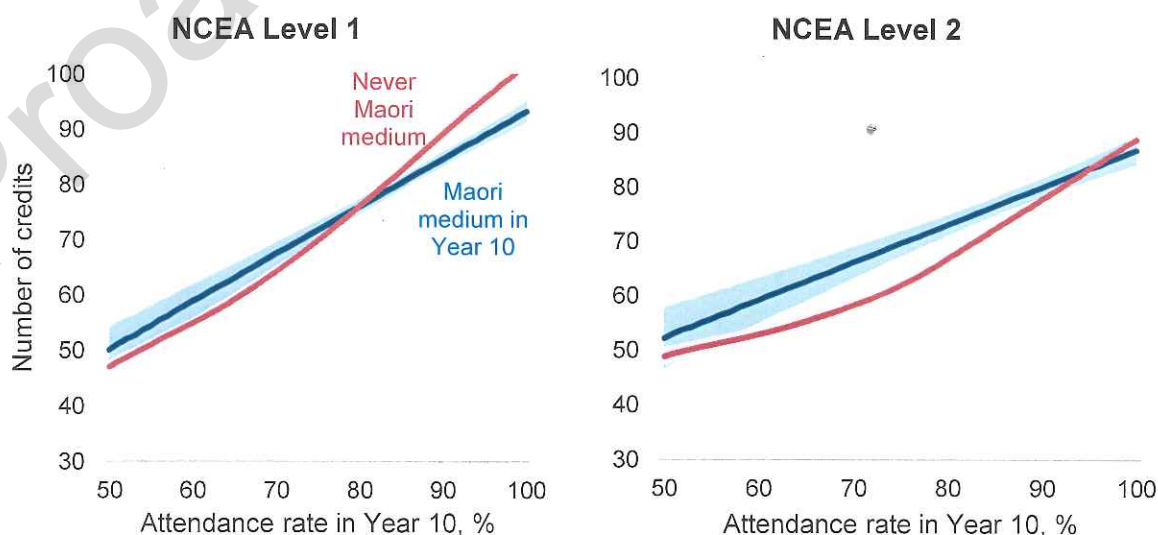
13. We have also undertaken exploratory analysis on attendance and its relationship with attainment that compares Māori students in English medium education with students in Māori medium education. In this analysis, Māori medium education includes all students that learn 51% or more of their content in te reo Māori. This includes students in kura, as well as students in Māori medium units within otherwise English medium schools.
14. The below figure shows average attendance rates for Māori students in English and Māori medium education, by year level. These attendance rates are the proportion of Term 2 that students spend attending school – this differs from the percentage of students who regularly attend, which is commonly used to report attendance. The graph shows that attendance rates are slightly higher for Māori students in English medium in Years 1-6, but slightly higher for Māori medium in Years 10-13. Note that participation in Māori medium is much higher in primary school than secondary school years, so these are potentially quite different populations.

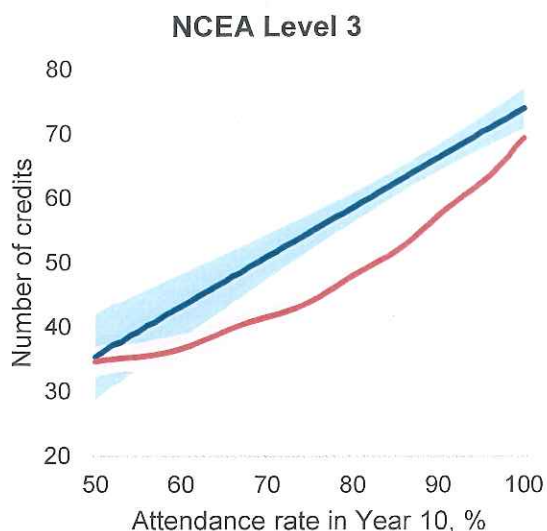


15. Breaking down by individual absence code indicates that absence due to illness is lower in Māori medium (at all year levels), but truancy is higher than for Māori students in English medium (for Years 1-9). Note that these individual codes might be influenced by the way different schools record absences, as well as differences in actual absence behaviours.



16. We repeated the earlier analysis examining the relationships between senior secondary school attendance and subsequent NCEA attainment, this time comparing students enrolled in Māori medium education in Year 10 with Māori students who had never participated in Māori medium schooling (including in primary school). We found that the slope in the line relating to students never enrolled in Māori medium schooling was steeper than the line for students in Māori medium education in Year 10. This difference is more pronounced at Levels 2 and 3. This may be an indication that Māori medium education provides a protective factor in the loss of learning that comes from school absences.





We are working to improve attendance and other aspects of wellbeing across the work programme and in our day-to-day work

17. Tackling non-attendance is rarely done in isolation. Within the education system, improving the attendance of students is largely the responsibility of individual schools, working with parents and caregivers. We support schools to develop appropriate plans and responses to identified attendance issues and provide information for parents. With this in mind there are no nation-wide programmes specifically aimed at improving Māori school attendance.
18. Research and the Kōrero Matauranga have told us that wellbeing is essential to learning. We are working collaboratively with teachers, leaders, Māori, Pacific, students and their whānau to put a stronger focus on wellbeing, identity, language and culture as part of foundational learning. This work is complemented by action across the wider Education Work Programme that is anticipated to contribute to reversing inequities in learning, engagement and attendance. These include a significant strengthening of Learning Support, school leadership with a sustained focus on quality teaching practice, a localised curriculum and pastoral care.
19. Te Hurihanganui is one programme that aims to make teacher and school practice more responsive to the identity, language and culture of Māori students. In doing so, this may also promote attendance outcomes. One evaluation of Te Kotahitanga (the predecessor to Te Hurihanganui) reported positive perceptions of the programme on student attendance and engagement from students, teachers, school boards members, and whānau.
20. The government is also implementing the free and healthy school lunch programme. By 2021, up to 21,000 students in 120 schools will be eligible for a free lunch. Research indicates that one in five children in New Zealand experience moderate or severe food insecurity, and that poverty-related factors can be a barrier to regular school attendance for some students. The free and healthy school lunch programme is focused on improving child wellbeing by addressing food insecurity and supporting children's engagement, progress and achievement in their learning. The pilot programme is currently limited to schools in Bay of Plenty-Waiariki, Hawke's Bay Tairāwhiti, and Otago Southland. A decision on potential continuation or expansion will be made after the two year trial in 2022.

21. Regional offices have been working closely with schools and with other agencies (eg Oranga Tamariki, Ministry of Social Development and Police) to improve attendance and engagement within the levers available and sharing good practice with schools, this includes:
- brokering services for learners and whānau
 - providing support for student pathways to help students transition out of school and into work or further education
 - developing joint work/action plans to ensure actions are co-ordinated across agencies
 - working with schools and the sector to develop strategies for addressing poor attendance
 - working with and monitoring attendance service providers
 - new initiatives and pilots, for example mentoring programmes.
22. The specific way this work is focused for Māori students varies by region, examples include:
- focus on tracking Māori students that transition between schools
 - prioritising Māori achieving success as Māori to increase attendance and engagement by Māori students
 - Māori Engagement position created to support the individual student pathway for Māori students, particularly those who are disengaged from education. This position aims to ensure Māori children and young people, parents and whanau and iwi perspectives are considered and embedded in programmes of work, new initiatives, implementation and change in order to deliver education success
 - Whānau Education Plan training.
23. We are also initiating a review of the individual codes schools use to record a learner's presence or absence, as well as relevant guidance. Part of this work will aim to ensure that the codes are culturally appropriate and being applied with cultural practices taken into consideration so that no child is discriminated against. This is likely to include further understanding of how certain practices or events are recorded in the attendance data, for example tangi leave, domestic and international family and whānau events.

We are redesigning the Attendance Service to further promote attendance

24. The Learning Support Action Plan sets out priorities that include getting support to students earlier and prioritises improving education for children and young people at risk of disengaging. Work includes redesigning alternative education provision, supporting student attendance and engagement, and new measures to broker services for learners and whānau.
25. As part of this work, we are using the Attendance Service to support local actions. We will be working region by region as current Attendance Service contracts come up for renewal to design and trial changes that bring delivery of the Service closer to schools, working with local stakeholders and exploring options that reflect local circumstances.
26. For example, a pilot programme in South Auckland and Kawerau schools aims to improve the attendance of students who are frequently absent. Testing is taking place in these locations in 2020 to move managing and resourcing the Attendance Service closer to

schools, giving them greater control over the response. An evaluation of this pilot will also allow us to draw on the lessons learned to implement in other regions. If successful, this programme is intended to be expanded across all regions throughout the country by 2023.

We are conducting an innovation project relating to attendance in Manurewa and Rotorua

27. The Ministry has received a grant through the Department of Internal Affairs (DIA) Digital Government Partnership Innovation Fund to address an enduring challenge in the education system (non-attendance) to trial interventions to make a difference in improving attendance and to help lift the Ministry's innovative capacity and capability. The project explores how we might collaborate with young people, whānau, schools and the community in order to improve attendance, engagement in learning and wellbeing of all students. MOE is working with The Southern Initiative/Auckland Co-Lab and the Innovation Unit to explore insights, ideas and prototypes that could support a response to this challenge in Manurewa and the Bay of Plenty. These prototypes will be tested with the intent to develop a set of design principles that could be shared and transferred in other settings. Māori students make up a substantial part of the population in these areas, although the initiative is also targeted at local non-Māori students.
28. To date, through using co-design and an existing approach in the Bay of Plenty, a Māori Engagement Officer, has worked with 107 children and achieved an increase in re-engagement in schooling from 44.3% in Term 2 to 62% by the end of Term 3. The project in South Auckland has focused on interventions to help with the point of transition into secondary school.
29. We are involved in a number of other local activities that build community support and whānau resilience which in turn will drive-up student attendance at school. These include the Rotorua Working Together group's Engaging Rangatahi in Positive Pathways initiative known as Pūtake Nui which is working alongside Te Waiariki Pūtea Trust and the attendance service to take a lead in building better relationships with community and whānau. Much of this work to date has been about building connections and relationships between the many organisations involved.
30. Our Māori Education Advisor alongside the Rotorua Central Kāhui Ako are working closely with whānau and their rangatahi and offer wrap around supports that enable re-engagement with education. This attendance engagement prototype is proving to be successful and scaling up this project into other Kāhui Ako in the Bay of Plenty is underway. Alongside this is our work with local iwi to identify ways in which they can have an impact.

Proactive Release

31. We recommend that this Briefing is proactively released as per your expectation that information will be released as soon as possible. Any information which may need to be withheld will be done so in line with the provisions of the Official Information Act 1982.

Annexes

- Annex 1: He Whakaaro: What is the relationship between attendance and attainment?
Annex 2: He Whakaaro: School attendance and student wellbeing

Proactively Released