



What's happening with literacy in Aotearoa New Zealand?

Building a comprehensive national picture

BY TAYLOR HUGHSON & NINA HOOD



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About The Education Hub

The Education Hub is a not-for-profit with a mission to bridge the gap between research and practice in education in order to improve opportunities and outcomes for young people in New Zealand. Our work involves empowering educators as leaders of change in schools and ECE centres by ensuring they have easy access to the right information, in the right form, at the right time, and have the capacity and support to utilise it to improve practice.

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List of Acronyms

ASD	Autism Spectrum Disorder
BSLA	Better Start Literacy Approach
CPM	Curriculum Progress Map
e-AsTTle	Electronic Assessment for Teaching and Learning
ECE	Early Childhood Education
ERO	Education Review Office
GUiNZ	Growing Up in New Zealand study
IEA	International Association for the Evaluation of Educational Achievement
ITE	Initial Teacher Education
LNS	Literacy and Numeracy Secretariat [Ontario government body]
LPF	Learning Progression Framework
NCEA	National Certificate of Educational Achievement
NMSSA	National Monitoring Study of Student Achievement
NZC	New Zealand Curriculum
NZCER	New Zealand Centre for Educational Research
NZDep	New Zealand Deprivation Index
NZQA	New Zealand Qualifications Authority
OECD	Organisation for Economic Cooperation and Development
PAT	Progress and Achievement Tests
PfS	Programmes for Students
PIAAC	Programme for the International Assessment of Adult Competencies
PIRLS	Programme in International Reading Literacy Study
PISA	Programme in International Student Assessment
PLD	Professional Learning and Development
RR	Reading Recovery
RTI	Response to Intervention
RTLb	Resource Teacher Learning and Behaviour
RTLit	Resource Teacher Literacy
SES	Socio-economic status
SLT	Speech Language Therapist
TEC	Tertiary Education Commission

Introduction

There was a boy at one of my schools who I took on when he was halfway through Year 6 [aged 10 or 11], and at this point he couldn't read or write at all. In fact, when I first assessed him he said to me 'this is really embarrassing but I don't even know the alphabet'. So, we did start right from scratch. It took a while for him to understand the relationship between sounds and letters and his phonemic awareness developed very slowly; he did have speech difficulties as well. Once he got it, he did speed up in his reading acquisition. We got to the point where he could read cvc [consonant, vowel, consonant e.g. cat] words and then jumped again. Then I didn't see him for a while because of the lockdowns. [After the lockdowns] I reassessed him. After the assessment I asked him if he'd like to read me anything and he went away and got a book, and he was able to read to me the fiction story he selected very well. He then said 'I want to read more' and he read a non fiction story to me. He then asked if he could have more books. And that was just such a delightful change for me from a child who had behavioural difficulties and couldn't read or write at all and was now asking for books and reading for pleasure.

– RT Lit, Canterbury

It would be easy to dismiss this story as a one off. That a child could enter Year 6 following five years of schooling and not know the alphabet seems unfathomable. Unfortunately, available data suggest that poor literacy levels are in fact a widespread issue. Kick starting this whole project to better understand literacy in Aotearoa New Zealand was the statistic, published in a UNICEF report from 2020, that only 64.6% of Aotearoa New Zealand fifteen-year-olds have basic proficiency in reading and maths.¹ Turning that around, a staggering 35.4% - over a third of fifteen-year-olds – struggle to read and write. Given the critical (and growing) importance of literacy, not only for education and employment but also for broader life outcomes, this statistic is deeply worrying.

Research has demonstrated a significant relationship between literacy and the ability to reason efficiently and critically, particularly in the context of solving novel problems. More literate individuals also enjoy better health and wellbeing, and live longer. Even when controlling for other potential factors such as age, gender, socio-economic status, and ethnicity, lower literacy has been consistently associated with outcomes as diverse as lower incomes, more hospitalisations, lower vaccine uptake, lower participation in screening programmes (such as those for certain forms of cancer) and increased recourse to emergency care, as well as being a predictor of criminal activity. Beyond these kinds of more measurable benefits, literacy is important to civic participation and the flourishing of a vibrant democratic society.²

That something must be done to address the distressingly low literacy rates in Aotearoa New Zealand is clear. However, literacy, and more particularly, how to teach reading, writing, and oral language in schools, remains a contested area in educational research, policy, and practice. This report draws on the best available evidence to offer a comprehensive national picture of literacy in Aotearoa New Zealand, in order

¹ UNICEF. (2020). *Worlds of Influence: Understanding What Shapes Child Well-being in Rich Countries*. UNICEF. <https://www.unicef.org/nz/stories/new-report-card-shows-that-new-zealand-is-failing-its-children>

² Text adapted from Hughson, T. (2021). *Literacy: Why it matters*. The Education Hub. <https://theeducationhub.org.nz/literacy-why-it-matters/>

to inform ongoing discussions on how we address the literacy crisis in this country. It serves as a more detailed companion to our shorter, more accessible report *Now I don't know my ABC: The perilous state of literacy in Aotearoa New Zealand*.

In particular, this report asks three important questions:

1. What do we know about current literacy levels of students in Aotearoa New Zealand?
2. Why are students in Aotearoa New Zealand currently struggling with literacy?
3. What can we do to improve literacy outcomes for all students in Aotearoa New Zealand?

In addressing these questions, this report not only focuses on what we know but also, crucially, on what we do not know. The ability to make meaningful and sustained progress in addressing literacy in Aotearoa New Zealand is dependent, at least in part, on having an accurate understanding of the current situation, so pointing out gaps in our knowledge is crucial before we can move forward.

It is possible to deliver an education system that supports *all* children to develop high levels of literacy. Getting there will not be easy, but allowing the status quo of declining literacy and significant degrees of inequity between various groups in our population is not an option. This report therefore charts a course forward, acting as a call to action to address Aotearoa New Zealand's literacy crisis, as well as potentially feeding into the work the government currently has underway to address literacy achievement in Aotearoa New Zealand's education system.

Executive Summary

This report draws on the best available evidence to understand more fully exactly where Aotearoa New Zealand is and how we got here, in order to inform ongoing discussions on how we address the literacy crisis in this country. As such, it is hoped that it can be a call to action as well as potentially feeding into the work the government currently has underway to address literacy achievement in Aotearoa New Zealand's education system

1. What do we know about current literacy levels of students in Aotearoa New Zealand?

It is possible to draw the following key conclusions about students' literacy levels:

- Both primary and secondary school students have declining levels of achievement in most reliable measures of reading achievement, especially since 2009
- In recent years, New Zealand's reading achievement has declined faster than achievement levels in comparable countries
- Although there are only a handful of studies into writing achievement, available evidence suggests that large numbers of New Zealand children have significant issues with writing, and these issues are getting worse over time
- There remain persistently large gaps between students from different socio-economic and ethnic backgrounds, and between girls and boys, and these gaps continue to be higher than in comparable countries

2. Why are students in Aotearoa New Zealand currently struggling with literacy?

There are a wide range of explanations for our current failings in literacy, and it is not possible to pinpoint any single factor or factors which definitively explain the current situation. However, the available evidence does suggest possible explanations. This report is primarily focused on in-school explanations, however, it does acknowledge the impact of wider societal dynamics.

1. Education system level explanations

1. Initial Teacher Education (ITE) and ongoing professional learning may not be adequately equipping teachers with the skills and knowledge they need to be effective literacy practitioners
2. New Zealand's curriculum and assessment systems, especially NCEA, may be discouraging teachers from offering challenging, literacy-rich experiences in their classrooms
3. There is a lack of systematic literacy support for students who need it
4. Māori-medium education lacks a range of contextually appropriate literacy supports
5. Aotearoa New Zealand lacks a national literacy strategy

II. School and teacher level explanations

6. Effective literacy pedagogy is not present in all schools or classrooms
7. Some teachers lack sufficient knowledge of important concepts related to literacy instruction
8. School and ECE centre leaders often struggle to develop and implement clear literacy improvement strategies
9. Schools and teachers are often not using assessment effectively to support literacy learning
10. There are ongoing issues with the use of effective intervention practice in schools

III. Beyond school explanations

11. Socio-economic inequality continues to impact upon literacy attainment
12. Systemic racism continues to impact upon literacy attainment
13. There are significant disparities in the home literacy environments of children
14. High levels of absenteeism and transience, particularly among certain groups of students, is likely limiting the amount of literacy instruction some students receive
15. A decline in children reading for pleasure is likely impacting children's literacy development
16. An increasingly digital environment may be having some negative impacts on children's literacy development, though the picture is complex

3. What can we do to improve literacy outcomes for all students in Aotearoa New Zealand?

The following recommendations for how to improve literacy outcomes, with a focus is on in-school factors specific to literacy, rather than broader societal changes or larger school reform strategies.

- **Recommendation 1:** Develop and implement a national literacy strategy, with a parallel strategy for the Māori medium sector
- **Recommendation 2:** Develop and implement robust plans to ensure that ITE is equipping teachers with the knowledge and skills required to be effective literacy practitioners
- **Recommendation 3:** Develop more consistent, reliable, affordable and easy to use assessments, especially at school entry, and ensure these are widely available to schools
- **Recommendation 4:** Reform the national literacy-support system so that best practice is embedded more effectively and interventions are routinely monitored
- **Recommendation 5:** Ensure ongoing reforms to the New Zealand Curriculum and NCEA provide more clarity around what knowledge and skills students should have the opportunity to learn
- **Recommendation 6:** Develop and implement a national, systematic RTI (Response to Intervention) strategy & plan
- **Recommendation 7:** Develop nation-wide data-sharing infrastructure
- **Recommendation 8:** Provide more contextually-specific literacy-based supports within Māori-medium schooling
- **Recommendation 9:** Develop a clear outline of effective literacy practice(s) and ensure this information is regularly updated and widely available to schools and teachers
- **Recommendation 10:** Develop high quality literacy PLD programmes and ensure these are well-funded and widely available
- **Recommendation 11:** Develop a much more robust and more frequent programme of literacy data collection

Overall, this report concludes that while there are a wide range of challenges facing the improvement of literacy in Aotearoa New Zealand, change is possible. A clear national literacy strategy that incorporates the above recommendations will help to put Aotearoa New Zealand on a path to being a country where all children can achieve their fulfil potential, and play an active part in their communities and in society as a whole.

1 What do we know about literacy levels in Aotearoa New Zealand?

The overall picture of literacy levels in Aotearoa New Zealand is concerning. The reading and writing achievement of young people is on a downward trend across many measures of literacy achievement, and significant and ongoing gaps exist between different groups within society.

This first section of the report will outline what currently is known about literacy levels in Aotearoa New Zealand. The ability to present a complete understanding of literacy achievement is hampered in many instances by a lack of reliable, regularly-collected data. This is a serious problem; without a clear picture of children's literacy levels, it is challenging to develop appropriate interventions to improve them. However, there are three major studies that provide robust data of literacy achievement: PIRLS and PISA, large international studies, which focus on the achievement of 10 and 15 year olds respectively; and NMSSA, a national study focused on a representative sample of children at both Year 4 and Year 8.

State of the evidence on literacy levels in Aotearoa New Zealand

Developing a comprehensive picture of literacy achievement in Aotearoa New Zealand is challenging, due to both the small number of regular, nationally-representative studies available, and issues of reliability and validity within the available datasets.

Lack of coverage in literacy data

- **There is a lack of robust, nation-wide data on writing achievement beyond that provided by NMSSA for Year 4 and Year 8 students.** This means that currently there is no clear nation-wide understanding about emergent writing in the early years of primary school or writing ability at any stage of secondary school. There has been some attempt to provide insights into writing achievement in Years 1-10 through e-asTTle (a government provided in-school assessment tool); however, as individual teachers and schools mark e-asTTle writing assessments and there is no national moderation process, these data lack reliability.
- **There is a lack of clear data on literacy outcomes within Māori-medium education.** Even studies directly undertaken by the New Zealand government, like NMSSA, do not have a Māori-medium component. This means that when interpreting the data below, it should be assumed that it excludes children participating in Māori medium education. The one exception to this is PIRLS, where the assessment is offered in both English and te reo Māori.³
- **There is a lack of robust, regularly-gathered, and nation-wide studies of literacy development prior to the NMSSA data gathered at Year 4.** There are small amounts of data available via the longitudinal Growing Up in New Zealand (GUINZ) study, and a handful of other studies. However, there is no systematic and regularly-collected data in this area.

³ e-asTTle also offers assessments in te reo Māori. However, the available reports on e-asTTle only draw on English-medium data. See Ministry of Education. (2018). *Achievement and progress in mathematics, reading and writing in primary schooling: Analysis of e-asTTle assessment data, 2011 to 2016*. Ministry of Education. <https://www.educationcounts.govt.nz/publications/schooling/achievement-and-progress-in-mathematics,-reading-and-writing-in-primary-schooling>

- **There is a lack of data on literacy levels at key educational transition points.** For example, while the transition from primary school to secondary school has been identified as a period when student progress in literacy may slow, there are only limited data on this period garnered through attempts to summarise e-asTTle and PAT (another assessment tool used in classrooms) results.⁴

⁴ On the importance of this transition point in Aotearoa, see Wilson, A., McNaughton, S., & Lai, M. K. (2011). Reading achievement over the transition to secondary school: Profiling a problem. In M. Hodis & S. Kaiser (Eds.), *Proceedings of the Symposium on Assessment and Learner Outcomes*, (pp. 241-258). Jessie Hetherington Centre for Educational Research.

- **There often are a lack of data about how literacy development differs across key socio-economic, ethnic, and gender groups.** While larger studies offer detailed statistics in this regard, smaller and one-off studies typically do not provide such data (often because the sample sizes are too small).
- **Much of the available data are collected relatively infrequently.** PISA data comes every three years, while the PIRLS and NMSSA data are generated only once every five years, meaning that it is only possible to gain a reliable understanding of primary school literacy levels approximately twice every decade.

Issues with accuracy and/or usefulness of available literacy data

Many of the datasets frequently relied upon to provide an understanding of literacy achievement are hindered by issues of reliability and/or validity.

- **NCEA data does not offer a reliable measure of literacy.** NCEA (the National Certificate of Educational Achievement) offers data on literacy achievement via statistics on how many students achieve NCEA Level One literacy and numeracy (10 NCEA L1 numeracy and 10 NCEA L1 literacy credits). However, these data do not offer a useful indicator of literacy ability for two main reasons. Firstly, the aggregation of literacy and numeracy here means it is difficult to use these data to make claims about literacy performance alone. Secondly, and perhaps most importantly, the flexibility of NCEA means that it currently offers no 'standard' way of measuring literacy, and as a result a wide range of standards, including some that involve no reading or writing, award L1 literacy credits. This, however, is set to change under the NCEA revisions currently underway.
- **Available data from PATs and e-asTTle are of limited usefulness due to coverage issues and the way data are presented in available reports.** There have been attempts to use two major assessment tools employed by schools between Years 1 and 10, PAT and e-AsTTle, to generate pictures of literacy achievement. However, these data sets have some significant weaknesses. Firstly, as neither of these assessments are compulsory, looking at data from them has the potential to generate a skewed picture of literacy levels (although attempts to weight the data appropriately have been made). Secondly, the available summary of PAT data is focused on rates of progress rather than student achievement.⁵ This has some use, however, the lack of an achievement picture is problematic if wanting to gain a comprehensive understanding of student literacy levels. Thirdly, the form e-asTTle data are presented in is imprecise. The available report on e-asTTle data categorises students by whether they are achieving at the appropriate 'curriculum level'.⁶ Curriculum levels, especially in primary school, cover vast spans of development - 'Level 3', for instance, covers Years 5-7 inclusive. Therefore, knowing a child is at 'curriculum level 3' is not particularly useful, and the amount of development this measurement encompasses makes it challenging to assess change in literacy levels across time. The lack of standardisation when it comes to the marking of the e-asTTle writing assessment, as discussed above, is also an issue.
- **Data from National Standards do not give a reliable picture of literacy levels.** Although National Standards have now been disestablished, there are some data available from National Standards literacy assessments. However, these data are highly unreliable because each school could choose to assess National Standards in a way of their choosing and with their own marking and moderation practices.⁷

5 Berg, M., & Lawes, E. (2016). *Using PAT: Reading Comprehension data to understand student progress in reading*. New Zealand Council for Educational Research.

6 Ministry of Education (2018)

7 Ward, J. & Thomas, G. (2016). *National Standards School Sample Monitoring & Evaluation Project, 2010-2014: Report to the Ministry of Education*. Ministry of Education.

- **Much of the data available are not norm referenced.** Even when a data set is reliable, often it is not set against expected levels of progress. For example, the GUiNZ study provides useful information about emergent literacy levels in young children, but it is difficult to know whether to be concerned about the findings of the study, because there are not any norms, or indeed other historical or cross-country data, to compare them with.⁸

I. The Early Years: Emergent Literacy Ages 0-5

While it is challenging to build a robust picture of the literacy levels of children in Aotearoa New Zealand prior to Year 4, there are several studies that provide some insight into the emerging literacy abilities of children up to the age they begin formal schooling (normally at age 5). At this age, the focus is on understanding children's growing familiarity with key aspects of spoken and written language.

Data collected by the longitudinal Growing Up in New Zealand (GUINZ) study in 2014-2015 show that when children were 4.5 years of age⁹:

- There was a wide variation in letter-naming ability. On average, children could name 8.4 letters (i.e. 32% of letters), but 31% of children were unable to name any letters.
- Those in the bottom 20% of scores for letter naming were approximately 1.5 times more likely to be boys, 3.5 times more likely to identify as Māori or Pasifika, and 3.5 times more likely to be from NZ deprivation index (NZDep) levels 9 and 10 (indicating the highest levels of deprivation) than from NZDep 1 and 2.
- 53% of children could write their name in a recognisable way.
- Those who could write their name were more than 2 times as likely to be girls, were almost 2 times as likely to be Pākehā or Asian, and were 3 times more likely to be from NZDep 1 & 2 vs. NZDep 9 & 10.

The high degree of variance captured in the GUiNZ data is also supported by other smaller studies. A 2015 study of just under 100 4-year-olds also found a "wide range in performance on all [literacy-related] measures".¹⁰ They found that while children's ability to comprehend and retell stories improved between the ages of 4 and 5, their mastery of discrete/'constrained' skills such as letter knowledge and phoneme awareness (skills that typically require more direct teaching) did not.¹¹

8 To highlight this concern, or indeed any of the others here, is not to suggest that children should be participating in frequent high stakes literacy assessments from a very young age, and be regularly pitted against their peers while doing so. As this report goes on to discuss, research evidence is fairly clear that frequent high-stakes literacy assessment of children tends to be counterproductive. What we are highlighting here is simply the absence of, or issues with, data at various points in the system which make it hard for us to understand children's literacy development in Aotearoa New Zealand. Solutions to this problem that do not rely on high-stakes testing are discussed in Part 3 of the report.

9 Thomas, S. Meissel, K., & McNaughton, S. (2019). *He Whakaaro Education Insights Paper: What developmental resources do our pre-schoolers have approaching the transition to school?* Ministry of Education. <https://www.educationcounts.govt.nz/publications/series/he-whakaaro/he-whakaaro-what-developmental-resources-do-our-pre-schoolers-have-approaching-the-transition-to-school>

10 Westerveld, M. F., Gillon, G. T., van Bysterveldt, A. K., & Boyd, L. (2015). The emergent literacy skills of four-year-old children receiving free kindergarten early childhood education in New Zealand, *International Journal of Early Years Education*, 23(4), p.344

11 See also this similar though slightly older study which had similar findings: Arrow, A. W. (2010). Emergent literacy skills in New Zealand kindergarten children: Implications for teaching and learning in ECE settings. *He Kupu*, 2(3), 57-69.

II. Primary School: Years 0-8

Data suggest that while there are gains in certain areas of literacy in the first years at primary school, the wide disparities in literacy skills present in the early years data largely continue across the primary years. The available data also suggest that a growing proportion of students fall behind expected profiles of performance as they move through their schooling, and that student performance as a whole is getting worse over time, with student literacy levels currently lower, on most measures, than they were earlier in the 2000s and early 2010s.

i. Emergent Literacy Years 0-2

Data reveal that the wide gaps in children's abilities continue in early primary, although some children who enter school with very low emergent literacy profiles do tend to 'catch up' in some areas (but not in others) once they begin school.

The most robust data available for this age group come from two 2018 reports by the NZCER, which collected data about the emergent literacy of approximately 2000 students aged 5-7.¹² These reports suggest that at school entry, students continue to have a wide range of literacy skills, just as they did prior to school entry:

- Students can on average identify 17 letters out of a possible 54 letters they were tested on (i.e. 31%), but there is wide variation, with a standard deviation of 18.2 letters.¹³
- On average, students know 10 out of a possible 24 'concepts about print', such as what way up a book needs to be held, with a standard deviation of 4.1.
- Students can write an average of 2 words in 10 minutes, but again there is wide variation: approximately 23% of children can write no words, and around 4% of children can write 13 or more words. The overall standard deviation is 3.9.
- Students at this age mostly cannot read whole words: the median score on the Burt vocabulary reading test (which tests whether students can read aloud words of increasing difficulty) is 0, with a mean of 1.4 and a standard deviation of 3.9 (which is so high because a small number of students begin schooling able to read a large number of words).¹⁴

As students progress through their first year of schooling, most students' literacy skills improve. Many students who entered with low levels of constrained skills such as letter identification tend to catch up with their peers. However, bigger gaps continue to persist with unconstrained skills, like the ability to write down words they know. For instance, by the time of their sixth birthday:

- Students can now identify an average of 52 out of 54 letters, though a standard deviation of 9.5 persists, as many students still cannot identify all the letters at this point, with some students still only able to identify a handful of letters.

12 Berg, M. & Lawes, E. (2018a). *Norms for New Zealand students in two age groups for the Observation Survey: A Report for NZCER*. New Zealand Council for Educational Research. <https://www.nzcer.org.nz/system/files/Norms%20for%20NZ%20students%20in%20two%20age%20groups%20for%20the%20Observation%20Survey.pdf>; Berg, M. & Lawes, E. (2018b). *Renorming Five Tasks of the Observation Survey for New Zealand*. New Zealand Council for Educational Research. <https://www.nzcer.org.nz/system/files/Renorming%20five%20tasks%20of%20Observation%20Survey.pdf>. These reports were used to update the norms used as part of a literacy assessment.

13 There are 54 letters mentioned here because the assessment used was the Marie Clay letter identification test, which asks students about both upper and lower case letters (i.e. 52 letters) and asks them about lower case 'a' and 'g' twice (therefore reaching 54 letters). 'Average' here refers to median unless otherwise mentioned.

14 This test assesses students' ability to successfully read written words out loud. It is not a test of reading comprehension.

- Students can on average now identify 16 out of a possible 24 concepts of print, with a standard deviation of 3.6.
- Students can write an average of 27 words in 10 minutes, but there is wide variation, with a standard deviation of 18.2. The bottom 11% of students can only write 0-6 words, while the highest 23% of students can write 44-96 words.
- Students now score an average of 17 on the Burt vocabulary reading test, but the variation in ability jumps up, with a standard deviation of 12.2. The bottom 11% of students can read only 0-4 words, while the top 23% of students can read 27+ words successfully.

The NZCER data suggest that these patterns continue throughout the second year of school. The range of performance on constrained skills, while slowly continuing to narrow, never reaches a point of total equality – on letter knowledge, for instance, for children aged between 6.5 and 7, only those in the top 4 stanines (that is, 40% of children) can correctly identify all 54 letters they are tested on. However, the gaps in student ability when it comes to unconstrained skills mostly tend to increase. For instance, the standard deviation on the word writing task grows to 20.7 for children aged between 6.5 and 7, with the bottom 11% of children (i.e. those in stanine 1 and 2) only able to write between 0 and 17 words in 10 minutes, while the top 11% of children (those in stanine 8 and 9) can write between 73 and 127 words.

The range of student performance in this emergent literacy period can also be seen in another study which examined the progress (as opposed to just achievement) in literacy development of almost 100 children in their first eight weeks of school. This study found that, depending on the measures employed, students' development could be grouped into three categories: either 'typical' (77.6% or 65.7% depending on the measurement), 'developing' (10.8%; 14.6%), or 'limited progress' (11.6%; 19.7%).¹⁵

ii. Writing Achievement from Year 4 onwards

The principal source of data available on writing ability for primary school students comes from the 2019 NMSSA study.¹⁶ Overall, these data suggest that many students struggle with writing, with their ability relative to expected achievement getting worse as they move through their schooling. For reference, 7 NMSSA 'scale points' are equivalent to about 1 year's progress in writing. NMSSA found that:

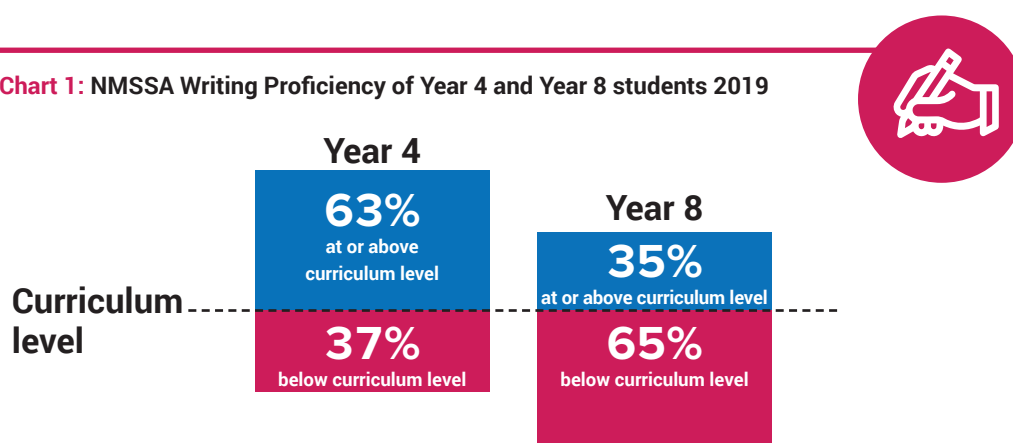
- Only 63% of Y4 students are 'at or above' the expected level of writing achievement outlined by NMSSA, and only 35% of Y8 students are 'at or above' level.
- Y4 girls outperformed Y4 boys by 11 scale score points, and Y8 girls outperformed Y8 boys by 12 scale points. This means there is an approximately 1.5 year gap between boys and girls in writing at both year levels.
- Ākonga Māori score 5 scale points lower in Y4 than other students, and 10 scale points lower in Y8. This indicates a 1-1.5 year gap in writing between Māori and non-Māori students which grows as students progress through their education.
- Pasifika students score 3 scale points lower than other students on Y8 writing, indicating a gap of approximately 0.5 years. However, there is no statistically significant gap in writing between Y4 Pasifika and non-Pasifika students.

15 Cameron, T. A., Taumoepeau, M., Clarke, K., McDowall, P., & Schaughency, E. (2020). Describing patterns of early literacy skill development in the first year of school and reading instruction in a New Zealand sample. *School Psychology*, 35(4), 243-254.

16 Educational Assessment Research Unit & New Zealand Council for Educational Research. (2020). *National Monitoring Study of Student Achievement: English 2019 Key Findings*. Ministry of Education. <https://www.educationcounts.govt.nz/publications/series/nmssa/english/nmssa-2019-english-key-findings>

- There is a gap of 8 scale points between high and low decile schools in Y4 writing, and a 12-point gap in Y8 writing, indicating approximately 1-1.5 years progress difference between high and low decile schools which grows as students progress through their education.
- Average scores for Y4 students writing dropped by a statistically significant 2 scale points between 2012 and 2019. This represents about a third of a year's progress, a substantial amount when students have only attended school for fewer than 4 years at the time of testing. This drop includes a few larger drops in Y4 writing for some sub-population groups: boys (3 scale points), Pākehā (4 scale points) and high decile students (4 scale points).
- There are no statistically significant drops in performance in Y8 writing either at a population level or among any sub-groups between 2012 and 2019.

Chart 1: NMSSA Writing Proficiency of Year 4 and Year 8 students 2019



The findings of NMSSA are generally backed up by the available data from e-asTTle, which also suggests student writing performance is well below where it needs to be.¹⁷ The most recent e-AsTTle data summary was produced by the Ministry of Education in 2018, and covers writing data for 2012-2016. This data summary suggests that while there has not been a statistically significant decline in student performance in writing over this period, from Year 4 onwards median student performance is below expectations. A precise figure for how much lower the student median performance is than expected levels is lacking, but the report states that the picture is “broadly consistent with results from the National Monitoring Study of Student Achievement (NMSSA)”.¹⁸ E-asTTle covers achievement up to Year 10, indicating that issues with writing persist up to this point. There are no datasets available for students’ achievement in writing beyond Y10.

iii. Reading Achievement from Year 4 onwards

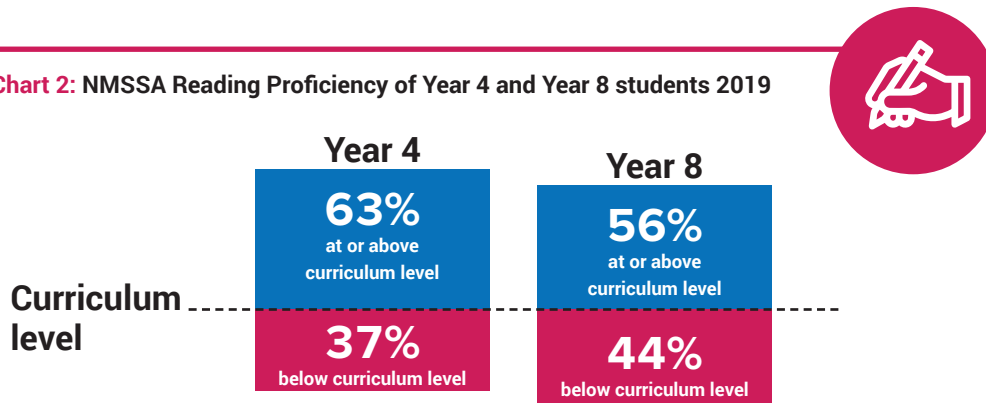
Taken together, NMSSA, PIRLS, e-asTTle and PAT data all reveal that large numbers of children struggle with reading, and that on average they get worse relative to expected profiles of performance as they progress through their schooling journey. Although some students continue to remain strong readers, PIRLS suggests that the number of students who show very high levels of reading ability has been

¹⁷ Ministry of Education (2018)

¹⁸ Ibid. p.4

decreasing over time. PIRLS data also shows that in the last 10 years in particular the reading ability of Aotearoa New Zealand children is declining more steeply compared to children in comparable nations.¹⁹

Chart 2: NMSSA Reading Proficiency of Year 4 and Year 8 students 2019



NMSSA reveals that only 63% of Y4 students and 56% of Y8 students are 'at or above' the expected level of reading proficiency in 2019 (the most recent year of data collection), meaning that 37% and 44% of students in these respective year groups are below expected levels of performance.²⁰ Unlike the NMSSA data on writing, there is no statistically significant decline in overall reading performance since 2014 (when the previous round of data collection was undertaken), though there is a small but statistically significant decline of 3 scale points in girls' reading over the 2014-2019 period, which equates to about a third of a year's progress. In NMSSA's reading assessment, 9 scale points are equivalent to approximately one year's progress.

The most recent summary of e-asTTle data, which covers scores from 2011-2016, also shows growing numbers of students falling behind expected levels of performance as they progress through their schooling journey. This summary reports that while "median reading achievement for students at Years 4 to 7 aligns with curriculum expectations set by the New Zealand Curriculum... for Years 8 to 10, median achievement is lower than the level expected by the New Zealand Curriculum".²¹

Beyond understanding this overall trend, the same inter-group trends present in primary school writing can be seen in reading, with large ethnic, socio-economic and gender-based gaps persisting. The NMSSA results show that:

- Girls outperform boys by 7 scale points in Y4 and 5 scale points at Y8, meaning there is on average a half year gap between girls' and boys' in reading.
- Ākonga Māori scored an average of 9 scale points lower than non-Māori students at Y4 and 10 scale points lower at Y8. This means Māori are on average approximately 1 year behind non-Māori in reading.

¹⁹ This is the first point at which this report introduces some comparative data. It is important to be clear about why this is worthwhile. The purpose of comparison is not to assess whether we are simply 'better' or 'smarter' than other nations. It is not about competition for competition's sake. Rather, data from other nations can offer a useful barometer in understanding whether we ought to be concerned about the literacy levels in Aotearoa New Zealand. In short, they help us to see whether we are offering the opportunity to become literate to all young people in Aotearoa New Zealand, or whether our system is currently stymying too many students' potential

²⁰ Educational Assessment Research Unit & New Zealand Council for Educational Research (2020).

²¹ Ministry of Education (2018) p.22

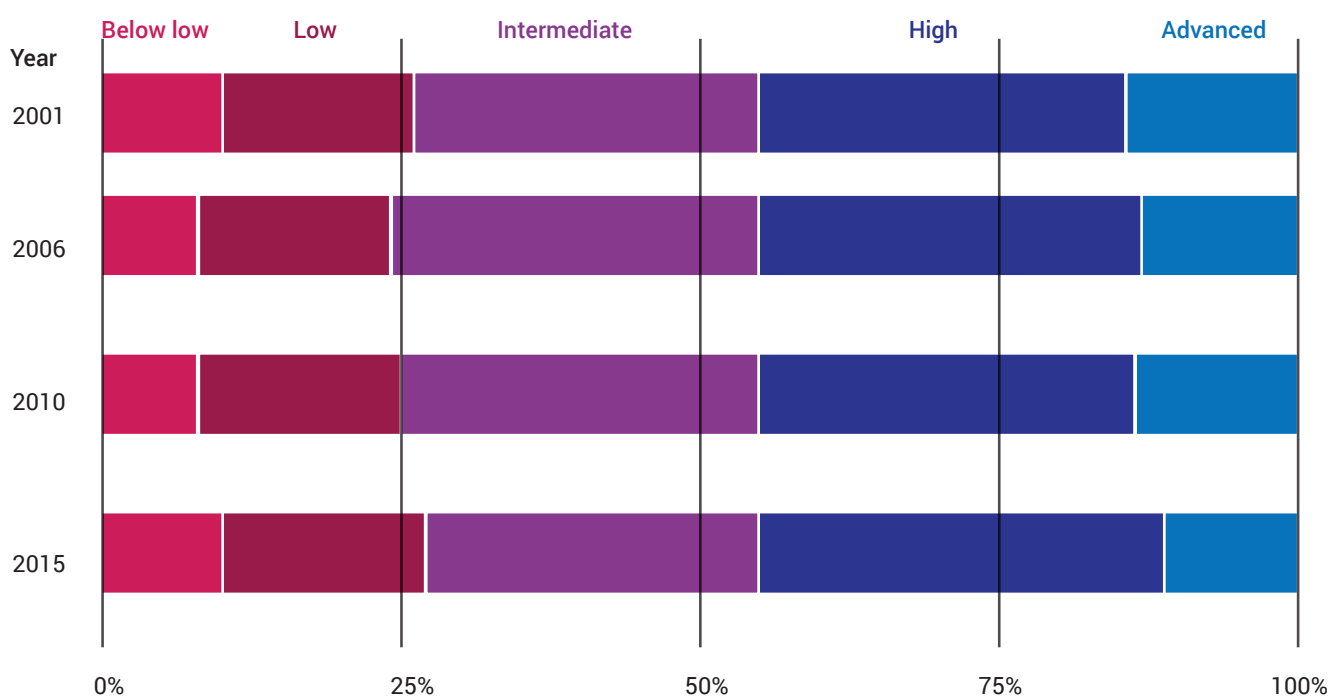
- Pasifika students were 12 scale points lower than non-Pasifika at Y4 and 13 scale points lower at Y8. This means Pasifika are on average approximately 1.5 years behind non-Pasifika students in reading.
- The gap between high and low decile students was 17 scale points at Y4 and 16 scale points at Y8, so overall there is a nearly 2 year gap between high and low decile students.

Unlike for writing, the Matthew effect is not present in the NMSSA reading data; that is, the gap between lower and higher achieving groups does not tend to grow over time. This finding is supported by a 2016 analysis of PAT data, which was focused on measuring student progress in reading over time and concluded that despite some minor variations, gaps between different groups of students remained fairly constant.²²

The PIRLS data, which focuses on Year 5 students, is generally in line with the NMSSA data, with high levels of student underachievement in reading as well as significant gaps among students in different ethnic, socio-economic and gender-based groups.²³



Chart 3: Reading achievement profile of Aotearoa New Zealand 10 year olds PIRLS 2001-2015



Percentage of students at each achievement level:

²² Berg & Lawes (2016)

²³ Ministry of Education. (2017). *PIRLS 2016: New Zealand's Achievement*. Ministry of Education. https://www.educationcounts.govt.nz/_data/assets/pdf_file/0007/183697/PIRLS-2016-NZs-Achievement_REV.pdf

In the most recent round of PIRLS assessment, conducted in 2016, Aotearoa New Zealand's mean reading score was 523. This is often contrasted with the PIRLS 'centerpoint' statistic of 500, to argue that Aotearoa New Zealand has comparably high rates of achievement in reading among primary school aged children.

However, using the 'centerpoint' statistic as a reference point from which to judge Aotearoa New Zealand's performance is problematic. This is because the 'centerpoint' does not refer to the average performance of other countries in PIRLS 2016, but rather to the average performance of countries that participated in PIRLS in its foundational year: 2001. Why is this an issue? Firstly, there is the time gap - reporting performance in 2016 relative to performance in 2001 does not take into account how other nations may have improved (or declined) in their performance over time. Secondly, unlike PISA, which has had a more consistent group of core countries participating, the countries who participate in PIRLS have shifted significantly over the last 4 testing cycles. For instance, only 4 of the 11 English speaking nations participating in PIRLS 2016 participated in PIRLS 2001. Thirdly, and perhaps most importantly, PIRLS has always invited a wide range of countries to participate. This differs to PISA which has, especially in the early rounds of testing, focused predominantly on OECD members and other 'rich' nations. Given the strong correlation between a country's wealth and its literacy scores, comparing Aotearoa New Zealand to the average performance of a range of both wealthy and not so wealthy countries in the 2001 PIRLS centerpoint figure is less useful than comparing it only to other wealthy countries.

When comparing New Zealand's 2016 score of 523 to a range of similar countries instead of the relatively arbitrary and unhelpful centerpoint figure, a very different image of the nation's literacy achievement emerges. The following statistics are particularly helpful:

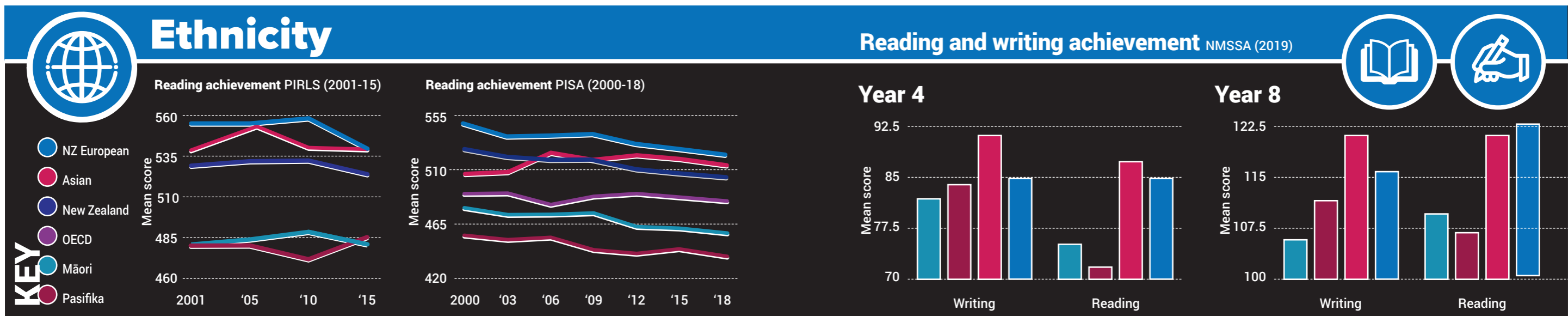
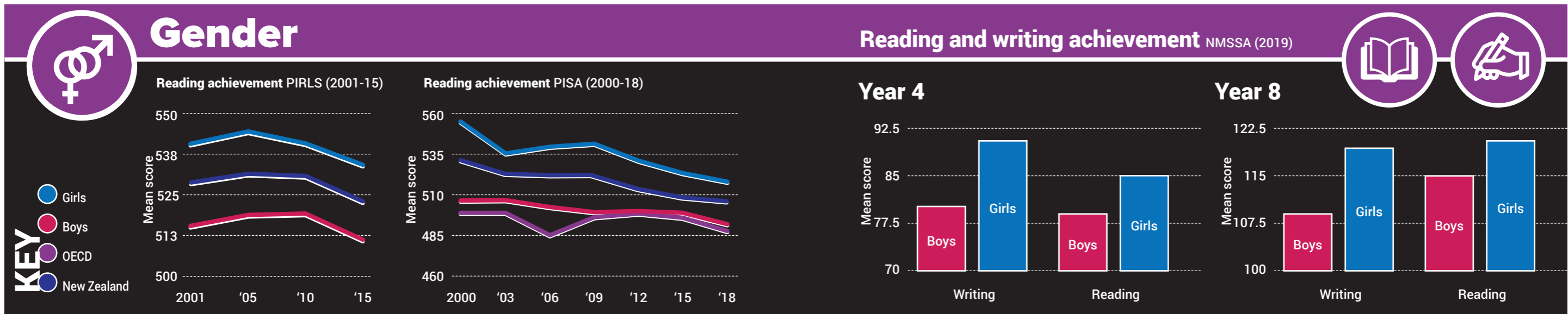
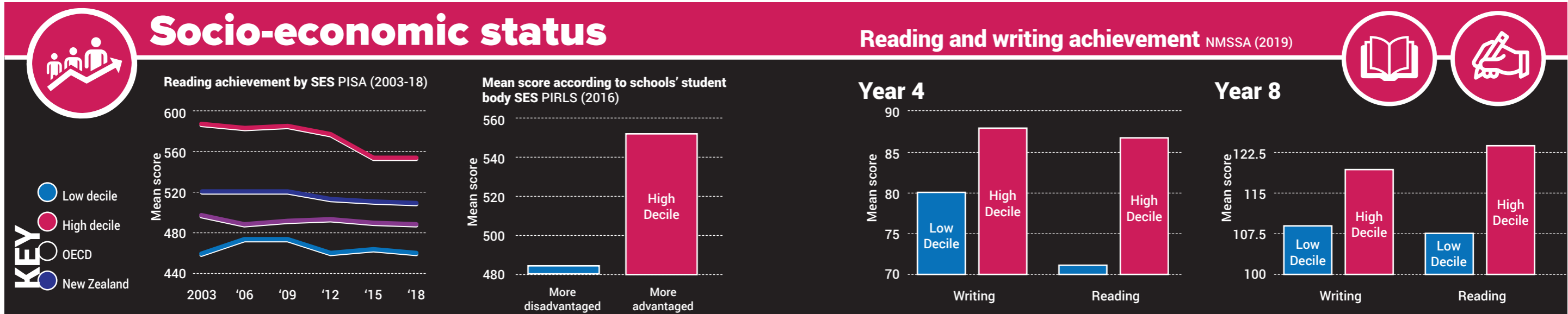
- When compared with other OECD nations or regions that participated in PIRLS 2016, Aotearoa New Zealand ranks 27/30. France, Chile and French-speaking Belgium are the only OECD nations/regions that scored lower than Aotearoa New Zealand.
- When compared with other English-speaking nations that participated in PIRLS 2016, Aotearoa New Zealand ranks 8/10. This places it below Singapore, Australia, Ireland, Northern Ireland, Canada, USA and England, and above Malta, Trinidad & Tobago & South Africa.

Comparing Aotearoa New Zealand's performance to other nations across time is also useful. Given changing participation in PIRLS over time, this is not an easy exercise. However, the Ministry of Education has produced a list of 18 'comparable nations', showing that since 2001, Aotearoa New Zealand has slipped from being placed 10th among these countries to being placed 15th, above only France, Norway and Iran.²⁴

The PIRLS data reveals the same gender, ethnic and socio-economic gaps present in the NMSSA data:

- There is a 21-point gap between girls' and boys' achievement in 2016 - this is the 12th largest gender gap out of all countries who participated in PIRLS 2016.
- There are large ethnic gaps, with Pākehā students gaining an average of 545 points, ākonga Māori an average of 479 points and Pasifika students an average of 485 points. The only statistically significant change in ethnicity-related statistics in recent years has been for Pākehā students, who fell 13 points from 2011 to 2016.
- There is a gap of 67 points between students categorised as being in 'more affluent' schools (who scored an average of 551 points) and 'less affluent' schools (who scored an average of 484 points).

24 Ibid.



The average gap internationally between these groups of students was 43 points, and only 4 countries in the 2016 testing round had gaps over 70 points. Between 2011 and 2016 the gap in Aotearoa New Zealand between more and less affluent students did narrow slightly, but this was due not to low SES students improving their reading ability, but rather was because of a small but statistically significant decrease of 9 score points in the mean score for more affluent children.

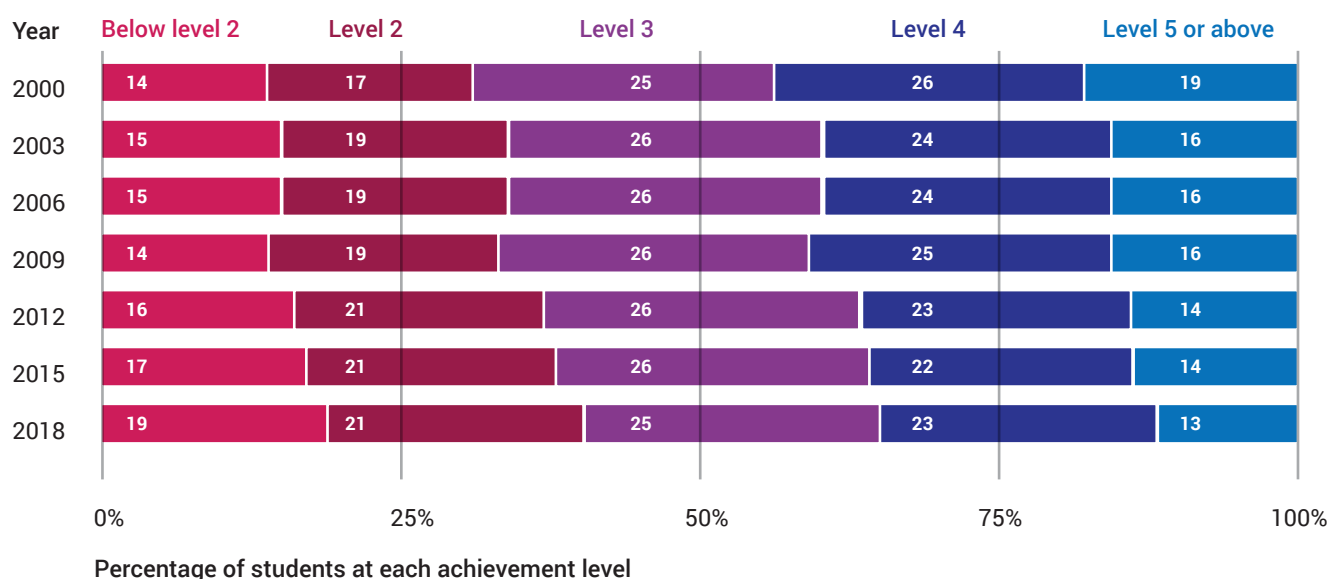
Performance has mostly remained stable since the first round of PIRLS testing in 2001; however, between 2011 and 2016 there was a statistically significant drop of 8 points, from 531 to 523.

III. Secondary School: Years 9-13

The only robust, large-scale data available for secondary school students' literacy comes from the PISA reading assessment.²⁵ PISA reveals that the trends identified in primary school literacy are also present, and in some cases worse, in secondary school literacy achievement. Data show that while Aotearoa New Zealand has reasonable reading levels compared to other countries, students' average reading ability is declining over time, and at a faster rate than comparable nations:



Chart 4: Reading achievement profile of Aotearoa New Zealand 15 year olds PISA 2000-2018



- Since 2000 the average reading score of Aotearoa New Zealand students has significantly declined, by 23 points, from 529 in 2000 to 506 in 2018. Each year of the test has seen a decrease, though these have not always been statistically significant. The most marked drop in reading scores came between 2009 and 2012.
- This 23-point decline is much more pronounced than the shift in the average OECD score, which decreased from 494 in 2000 to 487 in 2018.

²⁵ Medina, E. & McGregor, A. (2019). *PISA 2018 Reading in New Zealand: Reading achievement & experiences of 15-year-olds*. Ministry of Education. <https://www.educationcounts.govt.nz/publications/series/2543/pisa-2018/pisa-2018-reading-in-new-zealand>

- The proportion of students with significant literacy issues in Aotearoa New Zealand has grown. In 2000, 14% of students in Aotearoa New Zealand had literacy below Level 2, which indicates a 'basic' level of literacy. The proportion of students below Level 2 had grown to 19% by 2018.
- The proportion of advanced readers (categorised in PISA as 'Level 5 literacy' and above) has declined from 19% in 2000 to 13% in 2018.

Although Aotearoa New Zealand's average score in PISA 2018 of 506 remains significantly higher than the OECD average score of 487, its performance relative to other nations has also been declining over time:

- Aotearoa New Zealand has fallen from being placed 3rd out of 32 countries in PISA 2000, to being ranked 6th out of the same 32 countries in PISA 2018, and 7th out of all 36 OECD countries participating in PISA in 2018.²⁶
- When compared with other English-speaking nations, Aotearoa New Zealand's 2018 mean reading score was above Malta, and below Singapore, Canada and Ireland. The US, UK and Australia had similar mean reading scores.

As with the data on primary school reading, there are significant gaps between students of different ethnic, gender and socio-economic groups at secondary school level:

- In 2018, the mean reading performance score for girls (520 points) was significantly higher than that of boys (491). This gap has been narrowing since 2009, but only because girls have been declining at a faster rate than boys.
- Socio-economically advantaged students outperformed disadvantaged students in reading by 96 score points in Aotearoa New Zealand, compared with 88 points on average across OECD countries. This gap has been narrowing over time, but only because socio-economically advantaged students have been declining at a faster rate than disadvantaged students (21 points vs 13 points since 2009).
- The average score for ākonga Māori in reading was 463, which was significantly lower than the Aotearoa New Zealand average (506) and the OECD average (487). There has been a significant decline for ākonga Māori scores since 2000 (482 - 463).
- The average score for Pacific students in reading was 442, which was significantly lower than the Aotearoa New Zealand average (506). This also represents a significant decline from 459 in 2000.
- Asian students achieved an average reading score of 517 in 2018 compared to the Aotearoa New Zealand average of 506. This has remained relatively constant over the last 20 years (starting at 510 in 2000 and peaking at 525 in both 2006 and 2012).
- Pākehā students achieved an average reading score of 524 in 2018 compared to the Aotearoa New Zealand average of 506. This has declined significantly from 550 in 2000.

A 2014 study undertaken by the Tertiary Education Commission (TEC) identified similar findings to PISA data. This study took a large sample of Y11 and Y12 students, and measured their literacy against expected profiles of performance, with a key focus on finding out how many students with NCEA qualifications achieved 'level 4' literacy, which the TEC defined as being sufficient for student success in tertiary study. Their key finding was that "approximately 50% of the year 11 students with NCEA Level 1 and 40% of year 12 students with NCEA Level 2 are under the literacy requirement defined

²⁶ The New Zealand Ministry of Education argues that because of the closeness of many of the scores in PISA, although Aotearoa New Zealand is technically ranked 7th it is arguably more useful to talk about Aotearoa New Zealand being ranked 'between 6th and 12th', as this accounts for margins of error. See Medina, E. & McGregor, A (2019).

in this research".²⁷ It is important to note that these claims are specifically about students *who hold qualifications*, not all students. Given that in 2014, only 71% of students achieved NCEA Level 1 and 75% of students achieved NCEA Level 2²⁸, it can be assumed that the total number of students (i.e. both those with and those without NCEA qualifications) who fall below the TEC's measure for adequate levels of literacy performance is even higher than the figures quoted above.

Finally, the OECD's PIAAC (Programme for the International Assessment of Adult Competencies), which focuses on the competencies of adults, also includes some useful information about the literacy levels of young people.²⁹ The PIAAC data was last collected over 2014-2015, and published in 2016. PIAAC showed that overall, Aotearoa New Zealand adults aged 16-65 had high levels of literacy compared to other countries, with Aotearoa New Zealand ranking 6th out of 34 countries surveyed. However, this strong overall performance obscures potentially worrying trends related to the state of young people's literacy. This is because the distribution of literacy skills in Aotearoa New Zealand was different to that in other countries. Across nations that participated in PIAAC, literacy skills tended to peak among 25-34 year-olds while the performance of 55-65 year-olds tends to be the lowest of all age groups. In contrast, Aotearoa New Zealand's highest performing age band was 35-44 year olds, with the 55-65 year old population also performing more highly compared to other countries - these older (55-65 year old) New Zealanders scored 269 points in the PIAAC study compared with an average of 250 points for their age cohort across OECD countries. In contrast, 16-24 year old New Zealanders perform much closer to the average for their age group, with a mean of 278 points compared to the OECD mean of 275 points.

This indicates that it is older New Zealanders who are in effect 'holding up' 16-24 year old New Zealanders in PIAAC, allowing the nation as a whole to maintain a score which is well above that of other countries. This finding is in line with the fact that in 1970, an IEA (International Association for the Evaluation of Educational Achievement) study found that young New Zealanders (measured at both 14 and 18 years) had, at that time, the highest levels of literacy in the world.³⁰ It is therefore likely that these highly literate young people have moved through Aotearoa New Zealand society so that they are now comparatively highly literate older people (the participants in the 1970 study would have been approximately 59 and 63 at the time of the PIAAC data collection).

Summing up the picture of literacy in Aotearoa New Zealand

Overall, despite some significant gaps in the literacy data, it is possible to develop a reasonably clear idea of children's reading abilities in New Zealand, and a slightly less clear picture of their writing abilities. Children are entering schooling with large gaps in their emergent literacy skills, and these gaps are largely maintained throughout their schooling. Although some students have high levels of literacy, the proportion of these students seems to have declined in recent years; and, as students progress through their schooling, a greater proportion tend to fall further behind the expected performance profiles. Meanwhile, the large gaps in literacy that exist between children of different gender, socio-economic, and ethnic groups persist overtime. Some data, such as the NMSSA writing data, indicate these gaps

27 Thomas, G., Johnston, M., & Ward, J. (2014). Aligning adult measures of literacy and numeracy. Tertiary Education Commission. p.3 <https://www.tec.govt.nz/assets/Reports/3198200d93/Alignment-research-paper-Summary.pdf>

28 New Zealand Qualifications Authority [NZQA]. (2015). *Annual Report on NCEA and New Zealand Scholarship Data and Statistics (2014)*. NZQA. <https://www.nzqa.govt.nz/assets/About-us/Publications/stats-reports/ncea-annualreport-2014.pdf>

29 Organisation for Economic Cooperation and Development [OECD]. (2016). *Skills Matter country note: New Zealand*. OECD. <http://www.oecd.org/skills/piaac/Skills-Matter-New-Zealand.pdf>

30 Wagemaker, H. (1992). Preliminary findings of the IEA Reading Literacy Study: New Zealand achievement in the national and international context. *Educational Psychology*, 12(3-4), 195-213.

between groups get worse over time, while PISA data indicate such gaps may be narrowing slightly, but only because the performance of 'higher achieving' groups (girls, Pākehā students, students from affluent areas) is declining more rapidly than other groups of students. Although some studies, like PISA and PIAAC, indicate that Aotearoa New Zealand still has comparatively high levels of literacy compared to other nations, it appears that the country has been on a downward trajectory in recent years, with scores in international assessment programmes dropping both in real terms and when compared with other countries.

2 Why might students in Aotearoa New Zealand be struggling with literacy?

Understanding why Aotearoa New Zealand has such troubling literacy achievement among young people is challenging. There is insufficient evidence to make definitive claims about why students may be struggling with literacy. However, analysis of both Aotearoa New Zealand data and the international research-base, enables the identification of the factors that most likely are influencing literacy achievement.

At a systems level, major challenges include the lack of a national literacy strategy and the lack of an effective literacy support infrastructure, as well as ongoing issues with providing high quality resources and other support to Māori-medium classrooms and schools. At a school/classroom level, potential contributing factors include issues with: ensuring high quality literacy pedagogy is present in every classroom; the consistent and accurate use of effective assessment; and a lack of high quality literacy-focused in-school leadership. Beyond the education system, it also is important to acknowledge societal-level factors including ongoing challenges with socio-economic inequality and systemic racism, and a significant decline in reading for pleasure amongst young people.

I. Education system level explanations

1. Initial Teacher Education (ITE) may not be adequately equipping teachers with the skills and knowledge they need to be effective literacy practitioners

A limited suite of evidence suggests that ITE in Aotearoa New Zealand may not be fully supporting teachers to become highly effective literacy practitioners. A handful of small studies focused on surveying teachers' knowledge of key components of effective literacy instruction indicate that teachers undertaking or having recently completed ITE lack adequate knowledge in important areas, including phonics and morphology.³¹ Teacher submissions as part of a select committee review also stated that ITE did not adequately prepare them to support students with additional learning needs, including those students with literacy-specific issues like dyslexia.³² Thirdly, a particular risk has been identified of Māori-medium ITE at times struggling to adequately support kaiako Māori to develop sufficient te reo Māori competency prior to entering Māori-medium environments.³³ These sources of data are arguably not enough to clearly prove that ITE is a causal factor in the literacy issues discussed above. Nevertheless, they suggest that there is more that ITE could be doing to fully prepare teachers to meet the needs of their students.

31 Carroll J., Gillon, G. & McNeill, B. (2012). Explicit Phonological Knowledge of Educational Professionals. *Asia Pacific Journal of Speech, Language and Hearing*, 15(4), 231-244; Washburn, E. K., Binks-Cantrell, E. S., Joshi, R. M., Martin-Chang, S., & Arrow, A. (2016). Preservice teacher knowledge of basic language constructs in Canada, England, New Zealand, and the USA. *Annals of dyslexia*, 66(1), 7-26; Wilson, L., McNeill, B., & Gillon, G. T. (2015). The knowledge and perceptions of prospective teachers and speech language therapists in collaborative language and literacy instruction. *Child Language Teaching and Therapy*, 31(3), 347-362.

32 Select Committee on Science and Education. (2016). *Inquiry into the identification and support for students with the significant challenges of dyslexia, dyspraxia, and autism spectrum disorders in primary and secondary schools*. New Zealand Parliament. https://www.parliament.nz/resource/en-NZ/51DBSCH_SCR71769_1/cd88907f3c87d07b8b1db046417ed1e43fcd3e85

33 Hōhepa, M., Hāwera, N., Tamatea, K., & Heaton, S. (2014). *Te puni rumaki: Strengthening the preparation, capability and retention of Māori medium teacher trainees (Final Report)*. Ministry of Education <https://www.educationcounts.govt.nz/publications/maori/105966/te-puni-rumaki-strengthening-the-preparation-capability-and-retention-of-maori-medium-teacher-trainees-2014>; Skerrett, M. (2011). *Whakamanahia te reo Māori: He torohanga rangahau – A review of literature on the instructional and contextual factors likely to influence te reo Māori proficiency of graduates from Māori medium ITE programmes*. New Zealand Teachers' Council.

2. The structure of the New Zealand Curriculum (NZC) and NCEA may be discouraging some teachers from offering challenging, literacy-rich experiences in their classrooms

Research suggests that the NZC and NCEA can potentially disincentivise effective literacy practice because their open-ended, outcomes-focused structure can lead to the selection of tasks and texts that are not sufficiently challenging for students.³⁴ For instance, in NCEA English, where teachers can in effect select any text for analysis, there exists an incentive to choose the short, easy-to-read texts because these are easier for students to comprehend and write about, and therefore give them the best chance of passing an assessment.³⁵ To date, studies into this area have been small-scale, often focusing on just a small number of teachers or students, and only dealing with a few curriculum areas, meaning the data is far from conclusive.

Beyond the incentives of NCEA, the largely content-free nature of the NZC also appears to be leading to significant differences in the access to knowledge children gain via schooling. Building a sufficient knowledge base is crucial to becoming highly literate, as once a child can decode words, much of their ability to comprehend what is in front of them is dependent on their vocabulary levels and broader background knowledge.³⁶ There are a lack of large-scale studies in Aotearoa New Zealand exploring the content that students engage with during their schooling, and there are particular gaps in our understanding of primary schooling in this regard. However, research has found evidence of some students experiencing a narrow curriculum at school in a way which limits their opportunity to build a broad knowledge base about both Aotearoa New Zealand and the world.³⁷

3. There is a lack of systematic literacy support for students who need it

A range of research reveals that Aotearoa New Zealand lacks a systematic, nation-wide approach to supporting students who need additional help with literacy. A parliamentary select committee report found that students with specific learning needs, including literacy-specific needs, are not well served by the education system.³⁸ The report revealed that it was difficult to get children's needs diagnosed, that support for students with identified needs was typically poorly funded or non-existent, that many schools were not supported to use effective practices, and that transitions between schools were often difficult. Such findings are supported by a Ministry of Education report which highlighted challenges students

34 Wilson, A., Madjar, I., & McNaughton, S. (2016). Opportunity to learn about disciplinary literacy in senior secondary English classrooms in New Zealand. *The Curriculum Journal*, 27(2), 204-228; Wilson, A., & Jesson, R. (2018). A case study of literacy teaching in six middle-and high-school science classes in New Zealand. In K. Tang & K. Danielsson (Eds.), *Global developments in literacy research for science education* (pp. 133-147). Springer; Wilson, A., McNaughton, S., & Zhu, T. (2017). Subject area literacy instruction in low SES secondary schools in New Zealand. *Australian Journal of Language and Literacy*, 40(1), 72-85.

35 For other examples of this NCEA phenomenon see: Gómez, C. R. (2021). Risky choices: autonomy and surveillance in secondary English classrooms. *New Zealand Journal of Teachers' Work*, 18(1), 36-51; Hughson, T. A. (2021). Learnification and the outcomes-focused curriculum: The case of secondary school English in Aotearoa New Zealand. *The Curriculum Journal* 32(4), 652-66; Ormond, B. M. (2017). Curriculum decisions: The challenges of teacher autonomy over knowledge selection for history. *Journal of Curriculum Studies*, 49(5), 599-619; Ormond, B. (2011). Transformative shifts in art history teaching: The impact of standards-based assessment. *The Curriculum Journal*, 22(4), 567-590.

36 Hoover, W., & Tunmer, W. (2020). *The Cognitive Foundations of Reading and Its Acquisition*. Springer; Jeon, E. H., & Yamashita, J. (2014). L2 reading comprehension and its correlates: A meta-analysis. *Language Learning*, 64(1), 160-212.; Nagy, W., & Townsend, D. (2012). Words as tools: Learning academic vocabulary as language acquisition. *Reading Research Quarterly*, 47(1), 91-108; Perfetti, C. A., & Adlof, S. M. (2012). Reading comprehension: A conceptual framework from word meaning to text meaning. In J. Sabatini & E. Albro (Eds.), *Assessing reading in the 21st century: Aligning and applying advances in the reading and measurement sciences* (pp.3-21). Rowman & Littlefield.

37 Gómez, C. R. (2021). Recasting the subject: Curriculum, equity, and the educated ideal in secondary English classrooms. Unpublished doctoral thesis. University of Auckland; Ormond (2017); Wood, B. E., & Sheehan, M. (2021). Transformative disciplinary learning in history and social studies: Lessons from a high autonomy curriculum in New Zealand. *The Curriculum Journal*, 32(3), 495-509.

38 Select Committee on Science and Education (2016).

with high needs faced in accessing speech language therapists (SLTs)³⁹, and smaller studies which have revealed ongoing difficulties in students accessing dyslexia support.⁴⁰

Where systematic forms of support exist, they are under-resourced and poorly structured. The RTLit (Resource Teachers - Literacy) service, which is the main form of literacy-specific support provided by the government, is poorly funded and lacks sufficient oversight. The service had its funding stay more or less static from 2001 until 2014 (the last time a review of the service was conducted), with 109 full-time equivalent staff employed consistently over this period, even though the number of students being referred to the RTLit service doubled in that time.⁴¹ According to a major report into RTLits, the service also lacks a clear sense of direction or purpose, experiences limited oversight from the Ministry, and sees highly variable practice amongst the RTLits themselves, with no mechanisms for sharing best practice across either the country or specific clusters of RTLits.⁴²

Beyond specific nationally provided support like SLTs and RTLits, Aotearoa New Zealand lacks a clear Response to Intervention (RTI) system for literacy needs. Typically, RTI systems operate in three tiers: Tier 1 involves well-designed, research-informed in-class learning; Tier 2 involves specific, targeted interventions to bring students back up to acceptable literacy levels; and Tier 3 involves intensive interventions for the small group of students who do not respond to Tier 2 interventions. Some schools do offer a tiered approach to literacy interventions, but there is no national infrastructure to ensure that all schools are able to do this. The reports cited above typically reveal that in many cases, schools feel they do not have the staffing or the expertise to operate any form of tiered interventions to a high degree of effectiveness.

4. Māori-medium education lacks a range of contextually appropriate literacy supports

Research into literacy provision within the Māori-medium sector is generally small-scale, and much of the available work is now quite dated, something that is an issue in itself. However, research shows that there are consistent issues regarding a lack of funding and resourcing around literacy in Māori-medium education, a lack of specifically-tailored assessment tools and teaching resources, and a lack of appropriate professional development.⁴³ Additional concerns have been raised around the transition Māori-medium students often make into mainstream schools, and the lack of support for these students and their unique literacy needs as they move from primarily working in one language to working in another in their new mainstream environments.⁴⁴ Some research has also highlighted concerns of kaiako

39 Ministry of Education. (2015). *Engagement Forums Feedback*. Ministry of Education. <https://www.education.govt.nz/assets/Documents/Ministry/Initiatives/special-education-update/Complete-report-engagement-forums-feedback-Special-Education-Update-Nov-2015.pdf>

40 Elias, R. (2014) *Dyslexic Learners: An Investigation into the Attitudes and Knowledge of Secondary School Teachers in New Zealand*. Unpublished Masters Thesis. University of Auckland; Rowan, L. (2010). Learning with dyslexia in secondary school in New Zealand: What can we learn from students' past experiences? *Australian Journal of Learning Difficulties*, 15(1), 71-79.

41 Jenkins, M. (2014). *Resource teachers literacy: Operational and policy review*. Ministry of Education. <https://www.educationcounts.govt.nz/publications/schooling2/learning-support/resource-teachers-literacy-operational-and-policy-review>

42 Ibid.

43 ERO. (2000). *Literacy Education in Kura Kaupapa Māori*. Education Review Office; Hill, R. K. (2010). *What is the role of English transition in Māori-medium education?* Unpublished doctoral thesis. University of Waikato; May, S., & Hill, R. (2005). Māori-medium education: Current issues and challenges. *International Journal of Bilingual Education and Bilingualism*, 8(5): 377-403; May, S., Hill, R., & Tiakiwai, S. (2006). *Bilingual education in Aotearoa/New Zealand. Key findings from bilingual immersion education: Indicators of good practices*. Ministry of Education <https://www.educationcounts.govt.nz/publications/pasifika/5079>.

44 Hill, R. (2016) Transitioning from Māori-Medium to English: Pursuing Bilinguality. *New Zealand Journal of Educational Studies*, 51, 33-52; Weir, H. (2012). Transitioning from Māori-medium to English medium education: The experiences and perspectives of three students. *University of Sydney Papers in TESOL*, 7, 51-85.

who feel unsure how to balance the acquisition of both literacy in te reo Māori and in te reo Pākehā within Māori medium settings.⁴⁵

5. Aotearoa New Zealand lacks a national literacy strategy

The government does not currently have a clear, coordinated plan for how all the parts of the education system need to work together to see children's literacy levels improve. This results in, for example, funding and other forms of literacy support not being systematically allocated to the parts of the system (such as particular schools or students) that need them most, and until 2021 there not being a PLD programme designed to upskill teachers in effective literacy teaching strategies (note that the currently running PLD programme addresses only literacy instruction in the first years of primary school).⁴⁶ Although international studies of nation-wide literacy efforts are limited, the available research does suggest that having a clear plan and then developing clear system-wide initiatives to help make that plan a reality is crucial to improving literacy outcomes.⁴⁷ Therefore, although no specific research has been conducted into the lack of a literacy strategy in New Zealand, the lack of such a strategy can nevertheless plausibly be thought of as a potential reason behind declining literacy scores.

II. School and teacher level explanations

6. Effective literacy pedagogy is not present in all schools or classrooms

There is a substantial body of evidence that suggests that in many cases, teachers in Aotearoa New Zealand are not regularly teaching literacy in an effective manner. While much of this evidence lacks clear ways of measuring 'effectiveness' and at times relies on small sample sizes, taken together, it suggests that daily teacher practice may be a significant factor in understanding why so many students struggle with literacy.

The largest investigations into teacher literacy practice come from the Education Review Office (ERO), which has produced a series of reports into the teaching of literacy in ECE centres and primary schools. A 2009 report, focused on the teaching of reading and writing in Years 1 and 2, found that while around 70% of teachers used a range of effective literacy teaching strategies, 30% of teachers "had minimal understanding of effective reading and writing teaching" and "had no sense of how critical it was for children to develop confidence and independence in early reading and writing".⁴⁸

More recent ERO reports proffer similarly concerning findings. A 2011 report focused on practices in ECE did not provide statistics, but found that generally speaking, literacy practice was poor in ECE programmes, and that "literacy activities in early childhood are based on common practice rather than a deeper understanding of children's learning progressions in literacy... early childhood educators are generally not aware of how effectively, or to what extent, their programmes and practices support later

45 Berryman, M. & Gwyn, T. (2003). *Transition from Māori to English: A Community Approach*. NZCER Press; Hil, R.I (2011). Rethinking English in Māori-medium education. *International Journal of Bilingual Education and Bilingualism*, 14(6), 719-732. This research does not suggest that English ought to be prioritised in any way over te reo Māori, but rather highlights a need, often identified by those involved with Māori medium education themselves, to ensure that students are adequately prepared to be confident in both languages.

46 Ministry of Education. (2022a). Better Start Literacy Approach professional support. Accessed 06/02/22 <https://pld.education.govt.nz/find-pld/bsla-professional-support/>

47 Campbell, C., Fullan, M., & Glaze, A. (2006). *Unlocking potential for learning. Effective district-wide strategies to raise student achievement in literacy and numeracy*. Ontario Ministry of Education; Gallagher, M. J., Malloy, J., & Ryerson, R. (2016). Achieving excellence: Bringing effective literacy pedagogy to scale in Ontario's publicly-funded education system. *Journal of educational change*, 17(4), 477-504; Levin, B. (2010). The challenge of large-scale literacy improvement. *School Effectiveness and School Improvement*, 21(4), 359-376; Stannard, J., & Huxford, L. (2007). *The literacy game: The story of the National Literacy Strategy*. Routledge.

48 ERO. (2009). *Reading and Writing in Years 1 and 2*. Education Review Office. p.1. <https://ero.govt.nz/our-research/reading-and-writing-in-years-1-and-2#:~:text=This%20Education%20Review%20Office%20plan%20and%20evaluate%20their%20teaching>

learning or achievement”.⁴⁹ Similarly, a 2017 report into oral literacy development for 0-8 year olds found that there were “very few services where teachers had a clear and shared understanding of expectations for children’s oral language learning and development”.⁵⁰ This study ranked only 35% of schools as supporting oral literacy well, 36% as doing so “with some focus” and saw 29% of schools with “little or no focus” on this. The figures for ECE centres for these categories were 19%, 50% and 31% respectively.⁵¹ These ERO reports do not outline clearly how they gathered their data, or provide the criteria used to measure ECE centres, schools, or teachers. However, the picture they paint certainly suggests that there wide-spread issues with teachers’ literacy practice - something particularly concerning given the extensive international evidence demonstrating that what a teacher does in the classroom is one of the key determinants of outcomes for students.⁵²

A more limited set of data also suggest that there are similar issues with literacy practice in secondary schools. Studies have shown that teachers across a range of secondary school subjects tend to ask closed rather than open questions during literacy-based activities, rarely provide students with texts to read that are sufficiently challenging, and do not provide explicit literacy instruction on key aspects of written texts such as structure, purpose, audience and so on.⁵³ However, these studies typically have small sample sizes and do not attempt a comprehensive survey of literacy practices across their sites of inquiry. PISA 2018, also focused on secondary school students, found a small but statistically significant decline in student knowledge of effective reading strategies, which potentially reflects such strategies being taught less frequently.⁵⁴ PISA 2018 also found that Aotearoa New Zealand students received slightly less direct instruction in English compared to other countries, direct instruction being something that is associated with better outcomes in PISA.⁵⁵

7. Some teachers lack sufficient knowledge of important concepts related to literacy instruction

It is possible that issues related to teacher practice discussed above are at least in part due to issues with teachers’ knowledge. One study, purely focused on testing phonological awareness, found that Aotearoa New Zealand primary school teachers had a 74% accuracy rate when it came to segmenting words into sounds, while teacher aides scored 63%, ECE teachers 56% and RTLits 89%.⁵⁶ Other studies have shown similar findings.⁵⁷ While gaps in teacher knowledge are clearly one potential explanation for literacy issues in the student population, it is important to note that better teacher knowledge does not necessarily correlate with teachers utilising this knowledge to inform their teaching practices, as one small-scale Aotearoa New Zealand study has shown.⁵⁸

49 ERO. (2011). *Literacy in Early Childhood Services: Teaching and Learning*. Education Review Office. p.1 <https://www.ero.govt.nz/publications/literacy-in-early-childhood-services-teaching-and-learning/>. It is important to note that this report (and others in this section) are not focused on assessing ECE centres’ ability to offer school-level literacy programmes; literacy-based activities in ECE of course need to be context-appropriate, with a big focus on playful learning.

50 ERO. (2017). *Extending their language - expanding their world: Children’s oral language (birth-8 years)*. Education Review Office. p.1 <https://www.ero.govt.nz/publications/extending-their-language-expanding-their-world/>

51 Ibid. p.48-49

52 Day, C., Sammons, P., & Stobart, G. (2007). *Teachers matter: Connecting work, lives and effectiveness*. McGraw-Hill Education.

53 Wilson & Jesson (2018); Wilson, McNaughton, & Zhu (2017)

54 Medina & McGregor (2019)

55 ibid.

56 Carroll, Gillon & McNeill (2012)

57 Arrow, A. W., Braid, C., & Chapman, J. W. (2019). Explicit linguistic knowledge is necessary, but not sufficient, for the provision of explicit early literacy instruction. *Annals of dyslexia*, 69(1), 99-113; Chapman, J. W., Greaney, K. T., Arrow, A. W., & Tunmer, W. E. (2018). Teachers’ use of phonics, knowledge of language constructs, and preferred word identification prompts in relation to beginning readers. *Australian Journal of Learning Difficulties*, 23(1), 87-104.

58 Arrow, Braid, & Chapman (2019).

8. School and ECE centre leaders often struggle to develop and implement clear literacy improvement strategies

A limited suite of evidence suggests that school and ECE-centre leaders often struggle to develop and implement clear strategies for improving literacy. One ECE-focused ERO report noted that only approximately 50% of ECE centres included reference to literacy in their compulsory vision statement, but even among that 50%, the link to literacy was sometimes “tenuous”.⁵⁹ More broadly, the same report noted that “some” ECE centres existed where “managers provided little or no literacy leadership support... educators were not encouraged to increase their knowledge of current theories and research about literacy in early childhood education, or to apply their learning”.⁶⁰ A 2009 report into literacy practices in Years 1 and 2 offers similar statistics, for instance noting that only approximately 25% of school leaders “set expectations that strongly promoted high levels of reading and writing achievement for children in their first two years” and that approximately 66% of school leaders “used limited or poor processes to monitor the progress and achievement of these young children.”⁶¹ These findings are also supported by two smaller research studies which found that school leaders in primary schools often struggled to interpret assessment data correctly or to prioritise improving the literacy teaching capability of their staff.⁶²

The available research that touches on leadership is mostly over 10 years old and does not provide insight into the practices of leaders in secondary schools. Therefore, it needs to be treated with caution. However, given that there have not been any major initiatives to raise the capabilities of school or ECE centre leaders as ‘literacy leaders’ in the last decade or so, it is likely that many of the issues identified above still remain.

9. Schools and teachers are often not using assessment effectively to support literacy learning

Related to issues of teacher practice and school/centre leadership, there is evidence that literacy assessment is not always being used in an effective way to identify children who have particular literacy needs or to design effective interventions to support them. Data from a voluntary survey (so results must be treated cautiously) found that almost all schools were using some form of literacy assessment at school entry. However, it was not clear from the survey that what data were collected or how they were being used – only 68% of teachers, for example, reported using assessment data to “evaluate their teaching practice”.⁶³

Another, slightly older study, focusing on the use of assessment in primary schools more broadly, revealed that out of 29 schools studied, none were able to use data effectively to assess the impact of a literacy intervention – schools either did not collect data accurately, only collected data at one point (e.g. by conducting a post-test but not a pre-test), or collected data that were of poor quality.⁶⁴ These studies

59 ERO (2011) p.13. Again, as with other references to ECE literacy, the focus of these findings is very much on ECE centres’ ability to offer contextually-appropriate literacy programmes; ERO is not advocating and/or looking for the presence of formal, school-style literacy instruction in early childhood settings.

60 *ibid.* p.16

61 ERO (2009) p.2

62 Parr, J. M., & Timperley, H. (2008). Teachers, schools and using evidence: Considerations of preparedness. *Assessment in Education: Principles, Policy & Practice*, 15(1), 57-71; Timperley, H. M., & Parr, J. M. (2009). Chain of influence from policy to practice in the New Zealand literacy strategy, *Research Papers in Education*, 24(2), 135-154.

63 Cameron, T.A., Carroll, J.L.D., Taumoepeau, M., & Schaughency, E. (2019). How Do New Zealand Teachers Assess Children’s Oral Language and Literacy Skills at School Entry? *New Zealand Journal of Educational Studies* 54, p.80.

64 Parr & Timperley (2008).

indicate that issues with assessment literacy are connected to broader issues of teacher knowledge and practice.

10. There are ongoing issues with the use of effective intervention practice in schools

Aotearoa New Zealand clearly lacks a systemic approach to literacy interventions. Beyond this general issue, more specific issues can be identified with the types of interventions typically used in Aotearoa New Zealand schools. Much of the debate in this space focuses on the efficacy of the most popular intervention programme, Reading Recovery (RR), where there exists a large amount of sometimes conflicting data. Some Aotearoa-based research has indicated that RR does not have much of an impact, with initial gains dropping off over time.⁶⁵ Other local research is more positive about RR's potential, but finds that it is often not given to the children who need it most, or for long enough periods of time.⁶⁶ Regardless of the potential impact of RR and how long that impact might last, there is certainly an issue with RR only being used as an intervention after a child has completed a year of schooling. The median age that a child receives their first literacy intervention in Aotearoa New Zealand is 6.3 years⁶⁷, whereas extensive international evidence suggests that administering interventions as early as possible in a child's school learning journey has the greatest impact.⁶⁸

Criticism of RR is also connected to the concerns of some researchers regarding the lack of systematic phonics instruction, as RR does not include systematic phonics instruction.⁶⁹ While it is possible that a lack of systematic phonics instruction may be contributing to issues with literacy in Aotearoa, there is a lack of clear nation-wide data that shows the extent to which systematic phonics instruction is or is not occurring in schools, the impact this may be having, or how the amount of phonics instruction present in classrooms may have changed over the last few decades.

III. Beyond school explanations

11. Socio-economic inequality continues to impact upon literacy attainment

Although this report is principally focused on what can be done within the boundaries of the education system to improve children's literacy, it is important to recognise that socio-economic factors are one of the most important determinants of a child's literacy levels. NMSSA, PISA and PIRLS, among others, show significant negative correlations between SES and literacy outcomes. This is consistent with international evidence on the link between literacy/broader school achievement and socio-economic

65 Chapman, J. W., Greaney, K. T., & Tunmer, W. E. (2015). Is Reading Recovery an Effective Early Literacy Intervention Programme for Children Who Most Need Literacy Supports? In J. W. Chapman, K. T. Greaney, & W. E. Tunmer (Eds.) *Excellence and Equity in Literacy Education: The Case of New Zealand* (pp. 41-70). Palgrave.

66 Appleton-Dyer, S., Boswell, A. & Reynolds, J. (2019). *Reading Recovery Evaluation: Report for the Ministry of Education*. Synergia. https://www.educationcounts.govt.nz/_data/assets/pdf_file/0009/198747/Reading-Recovery-Evaluation-Report-13-May-2020.pdf

67 Schluter, P. J., Audas, R., Kokaua, J., McNeill, B., Taylor, B., Milne, B., & Gillon, G. (2020). The efficacy of preschool developmental indicators as a screen for early primary school based literacy interventions. *Child development*, 91(1), 59-76.

68 Al Otaiba, S., Connor, C. M., Folsom, J. S., Wanzek, J., Greulich, L., Schatschneider, C., & Wagner, R. K. (2014). To wait in Tier 1 or intervene immediately: A randomized experiment examining first-grade response to intervention in reading. *Exceptional children*, 81(1), 11-27; Lovett, M. W., Frijters, J. C., Wolf, M., Steinbach, K. A., Sevcik, R. A., & Morris, R. D. (2017). Early intervention for children at risk for reading disabilities: The impact of grade at intervention and individual differences on intervention outcomes. *Journal of Educational Psychology*, 109(7), 889-914.

69 Tunmer, W. E., Chapman, J. W., Greaney, K. T., Prochnow, J. E., & Arrow, A. W. (2013). Why the New Zealand National Literacy Strategy has failed and what can be done about it: Evidence from the Progress in International Reading Literacy Study (PIRLS) 2011 and Reading Recovery monitoring reports. *Australian Journal of Learning Difficulties*, 18(2), 139-180.

status.⁷⁰ Although it is difficult to isolate the extent to which low SES directly affects literacy (as opposed to achievement more broadly) and exactly how it does so (for instance through a lack of access to books, hunger affecting learning, school attendance issues due to lack of transport options and so on), it is nevertheless clear that it is a major factor.

12. Systemic racism continues to impact upon literacy attainment

Alongside socio-economic factors, the impact of colonisation and ongoing systemic racism have long been identified as having an impact both within individual school settings, and within society at large.⁷¹ While there are no studies directly linking these factors to literacy outcomes, a wide range of literature has shown that Māori and Pasifika students continue to suffer discrimination both within the schooling system and in the world beyond the school gates in ways which can negatively affect their academic achievement.⁷² Prominent themes in this literature include teachers having lower expectations for Māori and Pasifika students (even when controlling for other factors like socio-economic status and prior attainment), and teachers and schools not valuing non-Pākehā cultures or modes of expression. These specific issues relate in part as well to broader structural issues, such as the teaching workforce continuing to be predominantly Pākehā while the student body is increasingly diverse.⁷³

13. There are significant disparities in the home literacy environments of children

International evidence strongly suggests that a child's home literacy environment, including factors such as the number of books in a child's home and whether their parents engage in literacy-based activities with them, correlate strongly with children's literacy levels. The home literacy environment is especially important in the early years, before children start formal schooling.⁷⁴

Aotearoa New Zealand data, while limited, suggest that there are significant disparities in the home literacy environments of young children. The Growing Up in New Zealand (GUINZ) study indicates that while 85% of mothers do read books, sing songs or play music with their child several times a week or more, there are significant ethnic and socio-economic disparities in children's experiences.⁷⁵ For instance, mothers of New Zealand European children were almost four times as likely to read books to their child once or several times a day (72%) as mothers of Asian, Māori or Pasifika Island children, while mothers whose children faced the greatest levels of socioeconomic deprivation were less likely to read to their child once or several times a day, compared with mothers whose children faced the least socioeconomic deprivation.⁷⁶ Another study, which focused on a small sample of four year old children in Aotearoa New Zealand also found wide disparities, and clear correlations between a child's home literacy environment (including the number of books in their home and the frequency with which they were read to) and their

70 Caldas, S. J., & Bankston, C. (1997). Effect of school population socioeconomic status on individual academic achievement. *The Journal of Educational Research*, 90(5), 269-277; Sirin, S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of educational research*, 75(3), 417-453; Willms, J. D. (2003). Literacy proficiency of youth: Evidence of converging socioeconomic gradients. *International Journal of Educational Research*, 39(3), 247-252.

71 This 'factor' could have also been placed within either of the other two subsections above, but has been placed here to acknowledge that these structural issues extend well beyond the school gates.

72 See for instance Turner, H., Rubie-Davies, C. M., & Webber, M. (2015). Teacher expectations, ethnicity and the achievement gap. *New Zealand Journal of Educational Studies*, 50(1), 55-69; Bishop, R., & Berryman, M. (2006). *Culture speaks: Cultural relationships and classroom learning*. Huia Publishers.

73 Education Counts. (n.d.). Teacher numbers: 2020. <https://www.educationcounts.govt.nz/statistics/teacher-numbers>

74 Hemmerichs, K., Agirdag, O., & Kavadias, D. (2017). The relationship between parental literacy involvement, socio-economic status and reading literacy. *Educational Review*, 69(1), 85-101; Kloosterman, R., Notten, N., Tolsma, J., & Kraaykamp, G. (2011). The effects of parental reading socialization and early school involvement on children's academic performance: A panel study of primary school pupils in the Netherlands. *European Sociological Review*, 27(3), 291-306.

75 Thomas, Meissel, & McNaughton (2019), p.5

76 *ibid.*

emergent literacy abilities.⁷⁷ Complex factors lie behind these statistics, including, parental working hours and lack of access to culturally-relevant reading materials.⁷⁸ However, as discussed in the final section below, unless all parents are supported to provide a rich literacy home environment for their children, then this will continue to be a significant factor in later literacy disparities.

14. High levels of absenteeism and transience, particularly among certain groups of students, is likely limiting the amount of literacy instruction some students receive

Aotearoa New Zealand has significant and ongoing issues with school attendance nation-wide. In 2019, only approximately 57% of students were classified as 'regular' attendees, meaning they attended school more than 90% of the time (a threshold which means they could still miss a day of school every two weeks).⁷⁹ When looking at this data by ethnicity, the picture becomes even more concerning. In the same year, Māori students were regular attendees only approximately 47% of the time, while Pasifika students attended regularly only approximately 50% of the time. These ethnic gaps are likely tied to issues described above, including ongoing socio-economic inequality and systemic racism. However, the overall picture is highly concerning, with many students missing large portions of learning across any given school year. Although there is a lack of robust local evidence tying attendance to achievement/literacy attainment, international evidence suggests that attendance rates strongly correlate with student achievement, even after controlling for other factors.⁸⁰

15. A decline in children reading for pleasure is likely impacting children's literacy development

Both NMSSA and PIRLS have established clear correlations between reading for pleasure and literacy outcomes, with NMSSA focussing on how regularly students read, and PIRLS on how much students enjoy reading.⁸¹ The most recent PISA data identified a decline in both 'enjoyment of reading' scores and the number of hours spent reading between 2009 and 2018. Students agreeing with the statement 'I only read if I have to' rose from 38% to 52% between 2009 and 2018, while students agreeing that 'for me, reading is a waste of time' rose from 18% to 28% over the same period. The number of hours children reported spending reading dropped significantly, with 43% of children saying they never read for enjoyment in 2018, compared to 30% of children saying the same in 2000. Students who indicated they both read and enjoyed reading less gained significantly lower scores in PISA, even when accounting for both gender and socio-economic factors.⁸² This is consistent with international evidence which suggests that reading for pleasure is a significant predictor of academic achievement.⁸³ These Aotearoa

77 Westerveld, Gillon, van Bysterveldt, & Boyd (2015)

78 Glynn, T., Berryman, M., & Glynn, V. (2000, July 11-14). Reading and Writing Gains for Maori Students in Mainstream Schools: Effective Partnerships in the Rotorua Home and School Literacy Project. Paper presented at the International Reading Association World Congress on Reading, Auckland, New Zealand; Hall, N., Hornby, G., & Macfarlane, S. (2015). Enabling school engagement for Māori families in New Zealand. *Journal of Child and Family Studies*, 24(10), 3038-3046 – although these studies are focused on school experience rather than experiences prior to school, they still provide important insight into how wider life circumstances need to be considered when looking at parental involvement in literacy.

79 Brunt, A. (2021, May 13). Philanthropic Community: The education data story. Unpublished Ministry of Education presentation.

80 Gottfried, M. A. (2010). Evaluating the relationship between student attendance and achievement in urban elementary and middle schools: An instrumental variables approach. *American Educational Research Journal*, 47(2), 434-465; Gottfried, M. A. (2014). Chronic absenteeism and its effects on students' academic and socioemotional outcomes. *Journal of Education for Students Placed at Risk (JESPAR)*, 19(2), 53-75.

81 Educational Assessment Research Unit & New Zealand Council for Educational Research (2020); Ministry of Education (2017)

82 Medina & McGregor (2019)

83 Clark, C., & Rumbold, K. (2006). *Reading for Pleasure: A Research Overview*. National Literacy Trust; Sullivan, A. & Brown, M. (2013). *Social inequalities in cognitive scores at age 16: The role of reading*. Institute of Education, University of London; Sullivan, A., & Brown, M. (2015). Reading for pleasure and progress in vocabulary and mathematics. *British Educational Research Journal*, 41(6), 971-991.

New Zealand data therefore indicate that declining levels of reading for pleasure is potentially a very significant factor in recent declines in reading levels in this country.

16. An increasingly digital environment may be having some negative impacts on children's literacy development, though the picture is complex

The data on the impact of an increasingly digital environment, both at school and in students' personal lives, are complex. Studies do not suggest that device use is uniformly bad for literacy but do indicate that particular kinds of device use can negatively impact learning.⁸⁴ Compared to other OECD countries, device use by Aotearoa New Zealand students is high, so it is important to look at what is known about how devices are being used here, and what impact this might be having.⁸⁵

The only large-scale data on device use and literacy in Aotearoa New Zealand comes from PISA. They suggest that even when controlling for socio-economic status and gender, students do best in the PISA reading assessment when they use devices in their English classes for 60 minutes or more each week.⁸⁶ However, this finding contrasts with the broader international picture, which shows that in most countries it is students who never use devices in English classrooms (or classrooms where they study their national language) who have the best literacy outcomes.⁸⁷ It also matters what devices are used and how they are used. The PISA 2018 data for Aotearoa New Zealand show that the use of tablets and interactive whiteboards is correlated with lower literacy scores, even when socio-economic factors are controlled for. Device use by students alone, as opposed to by teachers alone, or by teachers and students working together, is also associated with much lower literacy outcomes.⁸⁸ Finally, reading books digitally as opposed to on paper is also associated with poorer literacy outcomes in Aotearoa New Zealand, a finding that is consistent with the international literature.⁸⁹

Findings on device use outside the classroom are more equivocal. Although social media use is rapidly increasing, the Aotearoa New Zealand PISA data suggests that it is not having much of an impact on literacy levels, with the exception of students who report participating in online discussion forums - these students have significantly lower literacy outcomes even when socio-economic status and gender are taken into account.⁹⁰ The available international literature on social media suggests that there is no clear negative correlation between social media use and academic performance, however, data are somewhat scarce at this stage and a full picture is arguably yet to emerge.⁹¹

84 Appel, M., Marker, C., & Gnamb, T. (2020). Are social media ruining our lives? A review of meta-analytic evidence. *Review of General Psychology*, 24(1), 60-74; Delgado, P., Vargas, C., Ackerman, R., & Salmerón, L. (2018). Don't throw away your printed books: A meta-analysis on the effects of reading media on reading comprehension. *Educational Research Review*, 25, 23-38; Furenes, M. I., Kucirkova, N., & Bus, A. G. (2021). A Comparison of Children's Reading on Paper Versus Screen: A Meta-Analysis. *Review of Educational Research*, 91(4), 483-517.

85 Medina & McGregor (2019)

86 Medina & McGregor (2019)

87 Bryant, J., Child, F., Dorn, E., & Hall, S. (2020). New global data reveal education technology's impact on learning. McKinsey & Company. <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/new-global-data-reveal-education-technology-impact-on-learning>

88 Sutcliffe, R. (2021). *PISA 2018: Digital devices and student outcomes in New Zealand schools*. Ministry of Education. https://www.educationcounts.govt.nz/_data/assets/pdf_file/0008/208799/PISA18-Digital-devices-and-student-outcomes-in-New-Zealand-schools-web-accessible.pdf

89 For Aotearoa New Zealand see Medina & McGregor (2019); for overseas evidence see; Delgado, Vargas, Ackerman & Salmerón (2018); Furenes, Kucirkova & Bus (2021)

90 Medina & McGregor (2019)

91 Appel, Marker & Gnamb (2020)

3 What can we do to improve literacy outcomes for all students in Aotearoa New Zealand?

There is no 'silver bullet solution' to raising literacy levels in Aotearoa New Zealand. Literacy is influenced by a complex range of intertwining factors and any one of these is difficult to shift at scale, and in a long-term and sustainable way.

This section outlines areas that could support improved literacy levels, starting with a clear national literacy strategy and implementation plan, which includes: reform of ITE; the provision of high quality and evidence-informed of literacy-focused PLD across all levels of schooling; the development of a clear RTI (response to intervention) plan; and the provision of high-quality easy-to-use literacy assessment tools, especially for school entry. Beyond the school gates, supporting parents & whānau to create rich home literacy environments, and ensuring that children are reading regularly for pleasure, are also important. These focus areas are all discussed in relation to the reforms that are currently underway across the education system, and we offer a brief assessment of whether current reforms are likely to lead to the changes that we believe we need to see.

In addition to these proposals, the final subsection outlines a research agenda. Given the large gaps in what is known about literacy at present, and the often haphazard way data are gathered, long term improvements in literacy outcomes in Aotearoa New Zealand will depend on gaining a better understanding of what is happening in the literacy ecosystem.

I. System-wide proposals

1. Develop and implement a national literacy strategy, with a parallel strategy for the Māori medium sector

Any sustainable and wide-scale change in the literacy ecosystem requires a national strategy, which outlines both what the country seeks to achieve and how it will achieve it.

Research from Canada and England has indicated that having a clearly defined strategy, while still allowing sufficient flexibility for schools and teachers to tailor initiatives to their local context, is crucial for embedding change within an education system.⁹² Such a strategy ideally needs to be overseen by a dedicated team of individuals, who have access to sufficient funding for a successful roll out and ongoing implementation, as well as adequate time to enable the new initiatives to be fully embedded. A separate strategy for kura kaupapa Māori and Māori immersion classrooms, created in close partnership with iwi, hapū and whānau Māori, should be developed alongside this national literacy strategy.

⁹² Campbell, Fullan & Glaze (2006); Gallagher, Malloy & Ryerson (2016); Levin (2010); Stannard & Huxford (2007)..

What reforms are currently underway?

The government has signalled its intention to develop national strategies for both literacy and te reo matatini.⁹³ This is a positive development and will hopefully lead to a much more coordinated approach to literacy. However, development is still in the early stages, and it is not yet clear how such a plan would be implemented, including the presence of a dedicated team to oversee the strategy's implementation or sufficient funding available to ensure that it is enacted in the ways in which it is intended.

2. Develop and implement a robust plan to ensure that ITE is equipping teachers with the knowledge and skills required to be effective literacy practitioners

Not enough is known about how ITE is currently equipping its students to be effective teachers of literacy. However, there is evidence suggesting teachers are emerging with suboptimal levels of knowledge in at least some areas. Developing a more robust picture of what teaching in ITE currently looks like will be a necessary first step to support reforms in this area. It is critical that reforms focus on ensuring that ITE supports teachers to be as fully prepared as possible to develop student literacy in their teaching across all year levels and all curriculum areas. This involves careful consideration of both curricula and pedagogical decisions of the ITE provider and also of the experiences pre-service teachers have in the practicum components of their courses.

What reforms are currently underway?

The Teaching Council has recently redeveloped requirements for ITE as part of a plan to create a more 'future-focused' ITE system. Part of these requirements involve student teachers meeting a minimum literacy level of entry.⁹⁴ However, there are no clear plans to ensure that ITE programmes themselves equip pre-service teachers to become highly effective literacy practitioners. The Ministry of Education's recent 'Shifting the Dial on Literacy' report acknowledges the need to 'build workforce capacity' via ITE, but does not outline any practical plans to do this.⁹⁵ More work therefore is needed both by policy makers and ITE programme leaders to develop concrete plans to ensure ITE is giving teachers the knowledge and skills they need to support students with literacy development.

93 Ministry of Education. (2021a). *Literacy and Maths strategy development in 2021*. Ministry of Education. Accessed 15/11/21 <https://www.education.govt.nz/our-work/changes-in-education/curriculum-and-assessment-changes/strategies-for-literacy-and-mathematics/literacy-and-maths-strategy-development-in-2021/>

94 Teaching Council. (2021). *Development of the ITE programme requirements*. Teaching Council. Accessed 15/11/2021 <https://teachingcouncil.nz/resource-centre/research-and-development/development-of-the-ite-programme-requirements/>

95 Ministry of Education. (2021b). *Shifting the dial on literacy: Preliminary paper*. Ministry of Education. <https://assets.education.govt.nz/public/Literacy-and-Maths-strategy-development-in-2021/Shifting-the-dial-Full-document.pdf>

3. Develop more consistent, reliable, affordable, and easy to use assessments, especially at school entry, and ensure these are widely available to schools

Schools and teachers are often still struggling to develop accurate pictures of children's literacy needs. To deal with this, a combination of formal and more informal assessment tools is required. The need for a nationally-consistent, comprehensive, and easy-to-use literacy assessment tool has been advocated for by a wide range of researchers as part of a solution to this problem.⁹⁶ At school entry, this would allow for children with specific literacy needs to be identified early and appropriate interventions to be carried out quickly, rather than the status quo where large numbers of children do not receive interventions, or receive them only after a year of schooling.⁹⁷ Beyond school entry, such a tool should allow teachers and schools to develop clear pictures of students' progress, and make adjustments to their practice and/or carry out further interventions as necessary. It also is important that teachers understand how they can use informal assessment practices in their day-to-day work so that they can assess where students are at, how they are progressing, and any areas in which they may be struggling. The impact of any assessment tools and practices is contingent not only on the tools themselves, but on ensuring that teachers are adequately supported to utilise these effectively in their practice.

Beyond general literacy assessment, there is also a need for easy access to affordable/free diagnosis for students who potentially have specific literacy-related learning needs such as dyslexia. At present, parents and schools report having to often jump through expensive hoops to get children's needs recognised, meaning lower income families and lower decile schools often cannot access diagnosis and appropriate support.⁹⁸ Research indicates that ensuring children are diagnosed and then provided with support from an early age should help to ensure any difficulties with accessing learning are minimised, and ultimately that children end up more empowered and aware of their own particular learning needs.⁹⁹

What reforms are currently underway?

The government has announced its intention to develop a new 'school entry assessment kete' to provide a comprehensive picture of student literacy profiles at school entry.¹⁰⁰ The Learning Support Action Plan, released in 2019, also committed to developing a tool/tools of this kind, which ought to also help screen children for additional learning needs such as dyslexia.¹⁰¹

These are positive developments. However, it will be necessary to see what emerges from these commitments before assessing whether they fully resolve the 'assessment gap' we currently have. It will be important that once these tools are produced, we see appropriate levels of funding and PLD attached to them so that they can be properly embedded in schools. It is also

96 Cameron et al. (2019); ERO (2017); ERO (2009); McLachlan & Arrow (2011); Schluter, P. J., Audas, R., Kokaua, J., McNeill, B., Taylor, B., Milne, B., & Gillon, G. (2020). The efficacy of preschool developmental indicators as a screen for early primary school based literacy interventions. *Child development*, 91(1), 59-76; Tunmer, W. E., Chapman, J. W., & Prochnow, J. E. (2006). Literate cultural capital at school entry predicts later reading. *New Zealand Journal of Educational Studies*, 41(2), 183-204.

97 Schluter et al. (2020).

98 Select Committee on Science and Education (2016).

99 Glazzard, J. (2010). The impact of dyslexia on pupils' self esteem. *Support for learning*, 25(2), 63-69; van der Leij, A. (2013). Dyslexia and early intervention: what did we learn from the Dutch Dyslexia Programme?. *Dyslexia*, 19(4), 241-255.

100 Ministry of Education. (2020). *Briefing Note: Scoping Brief on development of School Entry Assessment and relationship to Curriculum Progress and Achievement workstreams*. Ministry of Education. https://www.education.govt.nz/assets/R-9-1232846-BN-Martin_Redacted.pdf

101 Ministry of Education. (2019b). *Learning Support Action Plan: 2019–2025*. Ministry of Education. <https://conversation.education.govt.nz/assets/DLSAP/Learning-Support-Action-Plan-2019-to-2025-English-V2.pdf>

important that the sector gains assessment tools that can be used with children at a range of stages in their development, not just at school entry.

4. Reform the national literacy-support system so that best practice is embedded more effectively and interventions are routinely monitored

At present, support on a national level for children with specific literacy needs is limited and disjointed. The RTLit system, the main national programme to support these children, struggles to meet their needs and requires reform. One option would be to further centralise the coordination of RTLits, so that best practice can be embedded more easily across the RTLit network and their impact monitored. Any such reform would still need to maintain a degree of local autonomy for RTLit teams to deal with students' contextually specific learning needs.

Another option (and one that is not mutually exclusive) could involve more in-school support. Ontario, as part of their successful reform efforts, moved from external literacy support 'coming in' to schools, to programmes like the Ontario Focused Intervention Partnership, which provided training and PLD to schools to develop in-house expertise.¹⁰² A reform of this kind in Aotearoa New Zealand could be tied into the development of an RTI system, which is discussed below. No matter the approach taken, appropriate levels of funding are needed, including expanding provision to both early learning centres and secondary schools, where RTLits currently do not operate.

What reforms are currently underway?

The Ministry of Education has acknowledged that the current RTLit programme is ineffective and poorly funded.¹⁰³ At the time of writing, there is a proposal from the Ministry to revamp the RTLit service by increasing its funding and clarifying its purpose and structure. This proposal also envisions teachers and leaders being able to gain literacy-focused 'credentials' of some form so that more in-school literacy support can be offered.¹⁰⁴ This proposal has merit, but is in its early stages and is not yet official government policy. More work is therefore urgently needed by the government to develop a comprehensive vision for the nation's literacy support system, and a concrete implementation plan to turn this vision into a reality.

5. Ensure ongoing reforms to the New Zealand Curriculum and NCEA provide more clarity around what knowledge and skills students should have the opportunity to learn

Although evidence is limited, it appears that the New Zealand Curriculum (NZC) and NCEA may hinder literacy development in some contexts. NCEA currently allows some students to have reading experiences which do not challenge or extend them. The curriculum lacks sufficient clarity about how to approach literacy development and fails to ensure that all children have the opportunity to build a wide-ranging knowledge base about both Aotearoa New Zealand and the world. It is important that NCEA

¹⁰² Gallagher, Malloy & Ryerson (2016)

¹⁰³ Ministry of Education (2021b)

¹⁰⁴ *ibid.*

moves towards being more explicit about the literacy levels children need to be reaching and the kinds of learning experiences that children need to engage in to reach these - for example by placing more value on challenging reading experiences and developing critical literacy skills. The curriculum would similarly benefit from greater clarity, particularly with respect to the breadth of knowledge covered across all learning areas. This does not mean that NCEA and the NZC need to become overly prescriptive; it is important to maintain a sufficient degree of teacher and school autonomy to enable teaching and learning to be contextualised.

What reforms are currently underway?

Both the NZC and NCEA are currently in the middle of a review process. As part of the NCEA review, a literacy corequisite is being developed at NCEA Level 1, where there will be a specific literacy assessment students must pass to gain the qualification.¹⁰⁵ Depending on the final form of this assessment, this is possibly a positive step that will emphasise the importance of literacy in upper secondary schooling. However, reviews underway across various NCEA subjects do not appear to be emphasising the need for high literacy requirements across the qualification. It is therefore quite possible that the status quo outlined in Section Two above, which sees some students exposed to less challenging and enriching texts as part of their NCEA experience, will persist.

The NZC review has committed to making the curriculum more explicit about what students need to learn and when, while still retaining the flexibility to meet students' unique needs.¹⁰⁶ There is also work underway on Learning Progression Frameworks (LPFs - which appear to largely be developed already)¹⁰⁷ and Curriculum Progress Maps (CPMs)¹⁰⁸ which are designed to help teachers and school leaders better understand what progress in the curriculum, including in literacy, looks like. These changes are potentially helpful. However, there is a risk that these multiple projects, which are being developed concurrently and with slightly different foci, do not speak clearly to each other and thus may generate more confusion. It is important that both the LPFs and CPMs align with the final version of the 'refreshed' NZC. Finally, it is not clear to what extent resources to support the implementation of the LPFs and CPMs will be rolled out to schools, or whether they will exist as just another optional resource for teachers to access, as appears to be the case for the LPFs at present.¹⁰⁹

105 Ministry of Education. (2020). NCEA Changes: Latest Updates. Accessed 15/11/21. <https://conversation.education.govt.nz/conversations/ncea-review/latest/>

106 Ministry of Education. (2021c). Refreshing The New Zealand Curriculum. Accessed 15/11/21. <https://www.education.govt.nz/our-work/changes-in-education/curriculum-and-assessment-changes/new-zealand-curriculum/>

107 Ministry of Education. (n.d.-c). The Learning Progression Frameworks (LPFs): Understanding Progress. Accessed 15/11/21. <https://curriculumprogressstools.education.govt.nz/lpfs/learn-about-the-lpfs/>

108 Ministry of Education (n.d.-a). Resources that map progress across the national curriculum. Accessed 15/11/21. <https://conversation.education.govt.nz/conversations/curriculum-progress-and-achievement/what-you-said-5/resources-that-map-progress-across-the-national-curriculum/>

109 Ministry of Education (n.d.-c)

6. Develop and implement a national, systematic RTI strategy and plan

At present, there is no national approach to identifying students who have potential literacy issues and providing them with appropriate support.¹¹⁰ While developing assessment tools (see above) will help with this, there is also a need for a national RTI (Response to Intervention) framework so that we can ensure that all students get access to the help they need, rather than the current status quo where students can get vastly different levels of support at different schools. An RTI plan entails three stages of literacy support. These are: (1) high quality classroom provision; (2) timely, targeted interventions for students who present with literacy difficulties; and (3) more intensive, personalised interventions for students who do not respond well to initial interventions. At each stage, assessment tools are used to determine student needs and the progress they are (or are not) making.

Adopting a national RTI framework does not mean that all schools have to offer the same assessments or same interventions at the same time; it is important that schools retain the flexibility to meet the unique needs of their students and communities. However, it does mean outlining a set of minimum expectations for the support students should be able to access at each stage of the RTI process, resourcing schools properly for this, and offering appropriate professional development and other forms of support (as elaborated in other parts of this section) so that schools are able to run effective RTI systems. There is a particular need to improve the RTI infrastructure in secondary schools, where additional support programmes are often less developed than they are in primary schools.

What reforms are currently underway?

The Ministry of Education has acknowledged that the lack of an RTI framework is an issue.¹¹¹ However, they do not have many concrete suggestions for how to address this problem in a comprehensive way, beyond developing “national guidance”, potentially improving the RTLit system and committing to some more professional development (in an as-yet undefined form). The Ministry and other key players therefore need to work together to develop a much more robust plan around a national RTI framework to ensure that all students are getting high-quality literacy learning support as and when they need it.

7. Develop nation-wide data-sharing infrastructure

When students transition between schools, an understanding of their literacy needs is frequently not transferred with them.¹¹² This is a concern when students are moving between different levels of schooling (e.g. from primary to secondary school), between Māori-medium and English-medium schooling, and between schools of the same type (for instance moving between different English-medium primary schools). Although some schools do share data, this practice is not universal. A national data-sharing infrastructure, which makes student data accessible across all schools in a common format (with appropriate privacy safeguards in place), would reduce the substantial difficulties faced in re-

110 The Oral Language and Literacy initiative (OLLI) has recently been created, but at present this only supports a limited number of ECE centres to develop and implement a RTI framework. See Education Gazette Editors. (2019). Oral language initiative gives confidence to teachers and children. *Education Gazette*, 98(6). <https://gazette.education.govt.nz/articles/oral-language-initiative-gives-confidence-to-teachers-and-children/>

111 Ministry of Education (2021b)

112 Select Committee on Science and Education (2016).

assessing and developing interventions for students each time they move between schools. Given high rates of transience in New Zealand, this is particularly important.¹¹³

What reforms are currently underway?

The government's Learning Support Action Plan, released in 2019, agrees that "we need a way to bring individual learners' information together in one place and that allows an aggregated view of the educational needs of all children and young people".¹¹⁴ However, there is no clear timeframe in this document for developing this kind of infrastructure, and there have been no announcements on any progress made in recent years. The government therefore urgently needs to develop a concrete action plan for developing nation-wide data-sharing infrastructure for education.

8. Provide more contextually specific literacy-based supports within Māori-medium schooling

Research has clearly identified the need for more targeted Māori-medium te reo matatini (literacy) infrastructure.¹¹⁵ This includes both finding a way to include kura kaupapa Māori and Māori immersion classrooms in literacy/te reo matatini assessment tools from which they are currently excluded, and also investing in a range of resources, specifically-tailored assessment tools and professional development programmes so that kaiako working in Māori-medium environments are as well-supported as their colleagues in English-medium schooling to support te reo matatini development.¹¹⁶ It is important that this te reo matatini-development infrastructure attends to the unique differences between English-medium and Māori-medium education. This includes paying attention to the fact that most ākonga in kura kaupapa Māori and Māori immersion classrooms are speaking a different language at school (Māori) to that which they are speaking at home (typically English), something which creates a range of different learning needs.¹¹⁷ It is also important to acknowledge the greater level of importance placed on oral literacy (oracy) in Māori-medium environments, with competence in oral settings being understood as more important in te ao Māori than in te ao Pākehā.¹¹⁸

113 Ministry of Education (2021d). Transient Students/Ākonga. https://www.educationcounts.govt.nz/_data/assets/pdf_file/0011/208388/Transient-Students-2020-Indicator-Report.pdf

114 Ministry of Education (2019b), p. 41

115 Bishop, R., Berryman, M. & Richardson, C. (2001). *Te Toi Huarewa: Effective teaching and learning strategies, and effective teaching materials for improving the reading and writing in te reo Māori of students aged five to nine in Māori-medium education*. Ministry of Education. www.educationcounts.govt.nz/publications/schooling/5383; May & Hill (2005)

116 On the potential for contextually-appropriate assessment in particular, see Kerr, B. G., & Averill, R. M. (2021). Contextualising assessment within Aotearoa New Zealand: drawing from mātauranga Māori. *AlterNative: An International Journal of Indigenous Peoples*, 17(2) 236–245.

117 Berryman, M., Woller, P. R., & McDonald, R. (2012). Responsive socio-cultural contexts: Supporting five year olds to become literate in a second language. *Waikato Journal of Education*, 17(2), 79-90; Rau, C. (2005). Literacy acquisition, assessment and achievement of year two students in total immersion in Māori programmes. *International journal of bilingual education and bilingualism*, 8(5), 404-432.

118 Ministry of Education (2021b)

What reforms are currently underway?

The Ministry of Education is currently working on some of the areas discussed above, including the development of “tools to support progress and achievement in te reo matatini”.¹¹⁹ However, they also acknowledge that they currently lack a clear strategy or action plan for the Māori medium sector, and even in many cases lack an adequate understanding of the needs in the sector.¹²⁰ Given the available evidence of disparities in resource allocation, assessment tools and other areas, it is imperative that the government, in close partnership with iwi, hapū & whānau Māori, develops a clear strategy and implementation plan in this space.

9. Develop a clear outline of effective literacy practice(s) and ensure this information is regularly updated and widely available to schools and teachers

Currently, Aotearoa New Zealand lacks a clear idea of what constitutes effective literacy practices across all levels of schooling. Although it is important to remember that there is no one approach to literacy development that will work for all children, in all contexts, and at all stages, it is nevertheless possible to identify a suite of principles that are likely to support children at the various stages of their literacy learning journey. The international evidence suggests that developing shared understandings of what literacy practices are likely to be most effective for different groups of students is an important part of supporting teachers to become more effective practitioners.¹²¹ This should therefore be a matter of priority in the development of a national literacy strategy. A central part of this work in the context of Aotearoa New Zealand is continuing to ensure that teachers are equipped to support literacy development with the use of culturally responsive and sustaining learning contexts and pedagogies.¹²²

What reforms are currently underway?

The Ministry of Education has done some work in recent years to collate the evidence on effective literacy practices.¹²³ They have also been working on the development of resources about effective literacy learning, and have been funding programmes such as The University of Canterbury-developed *Better Start Literacy Approach*, and the *Pasifika Early Literacy Project*, both of which support teachers to develop a context-specific suite of core instructional skills related to literacy development.¹²⁴ These moves are positive, but because they are currently isolated projects, there is a risk that any gains they produce will not be embedded. Further action must therefore be taken to develop a nation-wide suite of ideas about effective literacy practices that are disseminated to schools across the country, in part through ongoing professional development. It is important to emphasise that this cannot be a ‘one size fits all’ approach, as different practices are needed in different places. Nevertheless, it is possible to move closer to

119 ibid. p.5

120 ibid.

121 Gallagher, Malloy & Ryerson (2016); Levin (2010)

122 See Bishop, R., O'Sullivan, D., & Berryman, M. (2010). *Scaling up education reform: Addressing the politics of disparity*. NZCER Press; Bishop, R., Berryman, M., Cavanagh, T., & Teddy, L. (2009). Te kotahitanga: Addressing educational disparities facing Māori students in New Zealand. *Teaching and teacher education*, 25(5), 734-742.

123 Thomas, Meissel, & McNaughton (2019)

124 Ministry of Education (2021b)

a shared understanding of what kinds of practices work best in different communities than the current approach where minimal support and guidance is provided by the Ministry.

10. Develop high quality literacy professional learning and development programmes and ensure these are well-funded and widely available

At present, professional learning in Aotearoa New Zealand is disjointed and lacks strategic focus, resulting in teachers receiving vastly different amounts of PLD in literacy and PLD of varying quality. PLD is one of the main mechanisms available to improve the teaching and learning of in-service teachers. The limited data available from jurisdictions like Ontario suggest that regular, ongoing, literacy-focused PLD which balances national priorities with the needs of particular teachers and schools is central to improving outcomes at a system-wide level.¹²⁵ Therefore, putting PLD at the centre of a national literacy strategy, allocating adequate funding to this and ensuring high-quality PLD programmes are available nationally at all levels (from ECE through to secondary) is important if we wish to improve literacy results.

What reforms are currently underway?

The government is currently reforming the delivery of PLD, having acknowledged that a decentralised system that lacks strategic focus has been struggling to deliver sufficient benefits. There are now 7 PLD priorities, with PLD opportunities that align with at least one of these priorities offered via regional PLD funds.¹²⁶ While some of the new priorities, such as local curriculum design or aromatawai, could support PLD related to literacy, there is unfortunately no specific prioritisation of literacy in the government's current framework. There are some isolated literacy-specific professional development programmes that the government does currently fund, such as the Better Start Literacy Approach (BSLA) developed by the University of Canterbury, but they do not apply to all teachers - BSLA, for instance, is just for Y0/1 teachers.¹²⁷ Given that PLD is perhaps the central mechanism we have for improving teachers' literacy practice, it is imperative therefore that a plan is developed to ensure that all teachers in Aotearoa gain access to regular, high quality literacy PLD.

Beyond teachers, the government is currently piloting a programme to provide literacy PLD for teacher aides, as they are often work most closely with students with high literacy needs.¹²⁸ This is a positive move but must be followed by a more comprehensive PLD programme for teacher aides and others involved in providing literacy support which builds on the findings of this pilot project.

125 Gallagher, Malloy & Ryerson (2016); Levin (2010)

126 Ministry of Education. (2022b). PLD Priorities. Accessed 06/02/22 <https://pld.education.govt.nz/regionally-allocated-pld/pld-priorities/>

127 Ministry of Education (2022a)

128 Ministry of Education. (n.d.-b) Teacher aide PLD pilot fund. Accessed 15/11/21 <https://pld.education.govt.nz/find-pld/teacher-aide-pld/>

II. Improving literacy beyond the classroom

11. Develop and implement a robust plan to better support literacy development in the home environment

Both local and international evidence demonstrates that supporting parents and whānau to provide an optimal home literacy environment is crucial to improving students' literacy.¹²⁹ This appears to be particularly important for the development of emergent literacy skills before a child begins school. The strongest evidence exists for the benefits of parents and whānau embracing dialogic reading as a regular practice with young children in their care, but other modes of reading and other literacy-based activities, such as telling and re-telling stories, are also beneficial. It is also necessary to recognise how culturally-specific practices, such as indigenous traditions of reminiscing, may help support early literacy development.¹³⁰ Generally speaking, the earlier children begin to participate in literacy-based activities, and the more frequently they do so, results in greater benefits.¹³¹

What reforms are currently underway?

Aotearoa New Zealand currently lacks any nation-wide effort to improve children's home literacy environments, though some small-scale programmes such as *Reading Together*, which is jointly supported by the National Library and Ministry of Education, do exist.¹³² It is crucial that an adequately funded and well-resourced plan is developed to address this issue, possibly one which partners with ECE centres as they have the most direct contact with children under the age of five. Part of any plan must be the creation of multi-lingual resources and/or resources in children's home languages, given the large numbers of children who are from multilingual families.

12. Develop and implement a robust plan to improve reading for pleasure among young people

Reading for pleasure has experienced significant declines among young people in recent years, and these have been negatively correlated with literacy levels. The research on improving reading for pleasure is complex, and it is unlikely that there is one approach or style of initiative that will work for all children. However, some general principles can be outlined. These include the importance of children gaining motivation (through seeing reading as something important and valuable to them) and choice – children

129 Ministry of Social Development. (2019). *Factors of the early learning environment that promote early learning outcomes in Aotearoa / New Zealand*. Ministry of Social Development. <https://www.msd.govt.nz/documents/about-msd-and-our-work/publications-resources/research/children-and-families-research-fund/earlylearningoutcomes-november2019.pdf>; Mol, S. E., Bus, A. G., De Jong, M. T., & Smeets, D. J. (2008). Added value of dialogic parent-child book readings: A meta-analysis. *Early education and development*, 19(1), 7-26; Niklas, F., Cohrssen, C., & Tayler, C. (2016). The sooner, the better: Early reading to children. *Sage Open*, 6(4), 1-11; Reese, E., Sparks, A., & Leyva, D. (2010). A review of parent interventions for preschool children's language and emergent literacy. *Journal of early childhood literacy*, 10(1), 97-117; Westerveld, Gillon, van Bysterveldt, & Boyd (2015).

130 Neha, T., Reese, E., Schaughency, E., & Taumoepeau, M. (2020). The role of whānau (New Zealand Māori families) for Māori children's early learning. *Developmental Psychology*, 56(8), 1518-1531.

131 Niklas, Cohrssen & Tayler (2016).

132 Biddulph Education Trust Limited. (n.d.). *Reading Together*. Accessed 20/11/21. <https://www.readingtogether.net.nz/reading-together.html>

are much more likely to find pleasure in reading if they can choose the reading material.¹³³ In Aotearoa New Zealand, an important part of offering choice involves providing texts that are culturally relevant to students.¹³⁴ In thinking about reading for pleasure, it is also important to understand its complex, bi-directional relationship with reading ability. Students with higher literacy levels are more likely to be drawn to reading for pleasure, and then, as these students read for pleasure, their literacy skills improve.¹³⁵ Therefore, any initiative focused on 'reading for pleasure' needs to work in tandem with broader initiatives to improve literacy levels.

What reforms are currently underway?

Beyond the recent creation of the Te Awhi Rito New Zealand Reading Ambassador role within the National Library, there is currently no large-scale effort to address the country's dramatic decline in reading for pleasure.¹³⁶ Therefore, it is important that the government develops both a national-level strategy or initiative, as well as working towards ensuring that individual schools and ECE centres are well-equipped to promote reading for pleasure. The latter goal may be achieved through targeted PLD in this area.

III. Outlining an improved research infrastructure

In addition to the above areas of reform, it is essential to develop a better literacy research and evaluation infrastructure for Aotearoa New Zealand. This infrastructure should enable the continual monitoring of literacy achievement and the factors necessary to ensure this achievement is happening, and to continue to develop our understanding of effective literacy practices.

There are four primary areas where greater research is required:

1. Building a more comprehensive, regularly updated understanding of literacy levels
2. Building a clearer understanding of literacy practices in schools and homes
3. Building a better understanding of how the literacy ecosystem at large is functioning
4. Continuing to improve our understanding of effective literacy practice

1. Building a more comprehensive, regularly updated understanding of literacy levels

i. Collect data about literacy levels across the whole of the system

At present, Aotearoa New Zealand has a decent amount of data on the literacy levels of Year 4/5 students (via NMSSA and PIRLS), and 15 year old students (via PISA). There also is semi-regular data for Y8 students via NMSSA. However, there is no process for facilitating systematic, nationally representative data collection for many other points in our education system, including crucially important periods like

133 Clark, C., & Rumbold, K. (2006). *Reading for Pleasure: A Research Overview*. National Literacy Trust; Cremin, T., Mottram, M., Collins, F. M., Powell, S., & Safford, K. (2014). *Building communities of engaged readers: Reading for pleasure*. Routledge; Department for Education. (2012). *Research evidence on reading for pleasure*. Department for Education. <https://www.gov.uk/government/publications/research-evidence-on-reading-for-pleasure>

134 Hubbard, G. (2017). Text choice for the English (language arts) classroom in New Zealand: Balancing needs and environment in the face of a potential move to increased accountability at Years 9 and 10. *New Zealand Annual Review of Education*, 22, 78-94.

135 Clark & Rumbold (2006); Stanovich, K. E. (1989). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21, 360-407;

136 National Library. (n.d.). Te Awhi Rito New Zealand Reading Ambassador. Accessed 20/11/21. <https://natlib.govt.nz/about-us/collaborative-projects/new-zealand-reading-ambassador#about-the-role>

the early years and the transition to high school. Collecting reliable data across all levels of the system is important for gaining a fuller understanding of students' literacy development and where specific issues may lie.

ii. Collect literacy data more regularly

While some data, like that which comes from PISA, is collected semi-regularly (every 3 years), other data are collected far less frequently, or only on an ad hoc basis. Aotearoa New Zealand needs to move to a situation where data are collected across the whole of the education system more frequently. This would facilitate the tracking of changes in literacy levels more closely, the assessment of the impact of reform initiatives, and the identification of potential issues. It is crucial, however, that such an approach is implemented carefully and is not connected with high stakes accountability. Rather, data should be framed as supporting continuous improvement.

iii. Collect data on students in Māori-medium education

At present the only large-scale survey of literacy/te reo matatini in Māori-medium settings is PIRLS. It is necessary to expand data collection so that these students are included. This may look like expanding tools such as NMSSA to offer assessments in te reo Māori, or, it may involve developing alternative tools that are attuned to the culturally specific needs and environments of Māori-medium education.

iv. Make better use of available data

Currently, the government has access to a large amount of literacy data via e-asTTle and PAT scores. While these are not perfect datasets, they have the potential to provide a reasonable picture of national shifts in literacy levels year-on-year for students in Years 1-10. However, at present, these datasets are not easily accessible to the public. Reports are sometimes published using these data, but this happens intermittently, and they provide only a partial picture of progress and achievement. Making this data available to researchers (in an aggregate form so individual schools' performances cannot be singled out) and publishing regular, detailed reports with these datasets would be a powerful way to generate a clearer picture of national literacy levels.

v. Collect more data on writing and oracy

Currently, the available data are skewed heavily towards reading. Writing and oracy are equally important aspects of literacy and therefore must form a greater part of literacy research.

2. Building a clearer understanding of literacy practices in schools and homes

i. Build a better picture of classroom literacy practice

Daily classroom practice is arguably the biggest in-system tool available to shift literacy outcomes. However, at present very little is known about what is happening in classrooms beyond a limited number of small-scale studies and patchy data from ERO. Without a clear understanding of current teacher practice, it is extremely difficult to think about how to structure effective interventions, such as changes to ITE and PLD, so that they can better support teachers to be effective practitioners. There is a need for well-designed large-scale studies into teacher practice at all levels of the schooling system. It would be possible to adjust some existing tools, such as the Teaching, School and Principal Leadership Survey to gather some of this data.¹³⁷ However, observational data will also be needed so that we can build a more complete picture than that which surveys can offer.

¹³⁷ See Wylie, C., & Hodgen, E. (2020). *Teaching, School, and Principal Leadership Practices Survey 2019*. New Zealand Council for Educational Research.

ii. Build a better picture of school-based assessment and intervention practices

Currently, little is known about how assessments are being used in schools, and what kind of intervention schemes are being employed by schools and learning centres across the system. As with information on pedagogical practice, it is vital to acquire an understanding of this to facilitate the design of effective nation-wide structures to support teachers and schools to use assessments and interventions in an optimal way.

iii. Build a better understanding of home literacy practices

As with understanding in-school practices, it would be powerful to have a robust understanding of home-based literacy practices. Regularly surveying parents and whānau to acquire this information would facilitate more meaningful and targeted steps to support parents & whānau to further enrich their home literacy-environments.

iv. Build a better picture of students' reading for pleasure practices

The above data have shown that declining reading for pleasure among young people is potentially a significant reason for declining literacy more generally. It is therefore important to build a more extensive picture of children's reading for pleasure practices, including developing a better idea of what might encourage children to pursue reading for pleasure more regularly/in greater numbers.

3. Building a better understanding of how the literacy ecosystem at large is functioning

i. Build a better understanding of ITE

There currently is no nation-wide understanding of the literacy programmes offered in ITE. Given the importance of ITE in supporting teachers to become effective literacy educators, it is not only necessary to understand what currently is happening in ITE; intervention studies to investigate how it can be improved should also be prioritised.

ii. Build a better understanding of national literacy initiatives

There currently is no system in place to reliably evaluate the impact of different literacy initiatives that are being centrally directed from the Ministry of Education. High quality evaluation should be part of all initiatives, with a focus not only on understanding impact but also how initiatives can be iteratively improved.

iii. Build a better understanding of literacy support nationally

At present, there are an absence of data on the kinds of literacy supports and services that are in place across the country, including the existence and extent of various PLD programmes, diverse government initiatives, and other available resources and support structures such as the Programmes for Students (PFS).¹³⁸ A regular nation-wide stocktake of these, which paid attention in particular to whether such supports were being distributed equitably and what kind of impact they were having, would be hugely valuable in shaping ongoing improvement efforts.

138 On Programmes for Students (PFS) which includes some literacy-specific support, see: Te Kete Ipurangi. (2021). Programmes for Students (PFS) – ALL, ALiM, MST. Accessed 21/11/21 <https://nzcurriculum.tki.org.nz/System-of-support-incl.-PLD/School-initiated-supports/Programmes-for-Students-PFS>

4. Continuing to improve our understanding of effective literacy practice

i. Produce regular research summaries on the latest literacy research, including on the most effective interventions

At present, it is difficult for schools and teachers to access up-to-date information on effective literacy practice. Although some material is produced, the Ministry of Education acknowledges that it is often not easily accessible or up-to-date.¹³⁹ It is crucial that the latest research, including summaries of specific programmes and interventions, are made readily available and are produced by an independent organisation. When it comes to interventions, such summaries would be wise to include cost-benefit analyses.

ii. Conduct more long-term, Aotearoa New Zealand-specific intervention-based literacy studies

There are only a handful of research projects exploring literacy interventions in Aotearoa New Zealand, and those that exist tend to be relatively small scale, and only measure students over the period of a few years.¹⁴⁰ Given our declining literacy levels, more large-scale, longitudinal studies which can identify effective interventions for the Aotearoa New Zealand context are needed. Such studies should be attuned to the context of Māori and Pasifika communities, which the international literature on literacy does not touch on. Ideally, these studies will be longitudinal, or at least will entail 'follow up' studies that track students over multiple years, in order for us to see whether the difference that interventions are making is temporary or can be sustained long-term.

iii. Continue to investigate the relationship between device use and literacy, and produce regular updates on findings

The picture of device use and its impact on literacy remains far from clear. Given that Aotearoa New Zealand has a high level of device use in its schooling system, it is important to build a much deeper understanding of the impact of this device use, including the most effective role for devices in the education system.

139 Ministry of Education (2021b)

140 See for instance Lai, M. K., McNaughton, S., Amituanai Toloa, M., Turner, R., & Hsiao, S. (2009). Sustained acceleration of achievement in reading comprehension: The New Zealand experience. *Reading Research Quarterly*, 44(1), 30-56; Whitehead, D. (2010). The year after: sustaining the effects of literacy professional development in New Zealand secondary schools. *Language and Education*, 24(2), 133-149.

Conclusion: Time to take literacy seriously

Children are experiencing widely different opportunities to learn. These differences start at birth, impacted by disparities in home literacy environments. They continue in early childhood education where differing levels of teacher knowledge, and different pedagogical practices and teaching philosophies influence both the opportunities and support children receive to develop age-appropriate early literacy skills. Such differences in pedagogical practices and knowledge continue at primary school, influencing the opportunities students receive to develop the foundational literacy skills that will set them up for ongoing literacy and broader educational success. The opportunities to learn some students, particularly Māori and Pasifika have, continue to be negatively impacted by low teacher expectations, which negatively influence the nature, breadth, and level of challenge present in the curriculum, the pedagogical approaches employed, and the level of support that they receive. For some students, opportunities to learn can also be enabled or constrained by the types, availability, and implementation of interventions. The variance in opportunities to learn continue as children proceed through school. The opportunity to engage in rich and challenging texts, the opportunity to read and write across the curriculum, and the opportunity to develop the critical literacy skills all vary between schools, and at times within the same school.

These discrepancies in opportunities to learn represent a systemic failure; they cannot and should not be apportioned to any one group, organisation, or policy. To address the literacy crisis in Aotearoa New Zealand is going to require reform at all levels. It is not a quick fix. It is something that requires a dedicated, connected response and a true commitment and desire to make a change. While there are few significant studies exploring system-wide literacy improvement efforts, of all the areas of education, literacy has one of the more robust and extensive research bases. This, coupled with what is known about the components that comprise effective education reform and school improvement efforts, means that improving the literacy achievement of Aotearoa New Zealand's young people should be possible. By acting upon the recommendations in this report, the government and other key actors have the chance to shift the status quo, reversing the current decline of literacy levels and instead charting a path towards an Aotearoa New Zealand where all young people can flourish.



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