Growing Up in New Zealand

Now We Are Twelve
Life in early adolescence

School engagement

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What do we know about school engagement?

The New Zealand Government is committed to supporting all children and young people to reach their learning potential. The Child and Youth Wellbeing Strategy 2019 aims to ensure that children and young people are positively engaged with, progressing, and achieving in their education (1). Understanding how young people engage in school and identifying who is at risk of lowered school engagement is vital for establishing pathways that support ākonga (student/s) and ensuring equity in educational outcomes.

School engagement describes the extent to which a learner is committed to and participating in learning activities. Consistent with recent research (2), this report considers school engagement to include elements of behavioural engagement (actions ākonga are taking in their learning), emotional engagement (their feelings towards school), and cognitive engagement (thinking deeply about their learning). Engaged learners are, on average, more regularly involved in school and learning activities, have a deeper sense of school connectedness, and have better achievement outcomes (3-5).

This report examines the factors associated with school engagement and highlights five priority recommendations for policy and practice.

What can *Growing Up in New Zealand* add?

Growing Up in New Zealand is uniquely positioned to explore the schooling experiences of 12-year-old children within a diverse, rich dataset. This report provides an overview of young people's engagement in school and describes some of the key factors associated with school engagement. Specifically, this report highlights the educational experiences of 12-year-olds within New Zealand by answering three questions:

1. Who is engaged in school at age 12?

2. How has emotional school engagement changed for young people since age 8?

3. What contextual factors enhance school engagement at age 12?

This report focuses solely on participants within the *Growing Up in New Zealand* study who resided within New Zealand during the 12-year data collection wave (DCW). As this report focuses on young people within education settings in New Zealand, young people will also be referred to as ākonga or students.

Growing Up
in New Zealand

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Measuring school engagement

In total, 17 items were used to measure school engagement, including the behavioural, cognitive, and emotional components of school engagement. Young people's responses to these 17 items were used to derive an overall school engagement score. Scores ranged from 1–5, with higher scores representing reports of higher levels of engagement and lower scores representing lower feelings of engagement. For more information, see the Supplementary material.

Key findings

- In general, most young people in this study reported positive school engagement.
- Across young people of all ethnicities, transgender/non-binary young people reported the lowest school engagement; whilst cisgender girls reported the highest school engagement.
- Young people with certain types of learning needs (e.g., specific learning disabilities, Autism, emotional/behavioural difficulties) reported lower school engagement than ākonga with no additional learning needs.
- Emotional school engagement improved for young people since early in the COVID-19 pandemic (May 2020); however, at age 12 was lower than at age 8.
- Student-teacher relationships and students' academic efficacy had strong positive associations with school engagement. Depression symptoms had a strong negative association with school engagement.
- Five priority recommendations for policy and practice are outlined:
  1. Continue to foster and promote inclusive school environments.
  2. Promote the importance of student-teacher relationships.
  3. Build students' academic efficacy.
  4. Promote whole-school approaches that enhance inclusive and responsive environments.
  5. Improve access to services and support for mental wellbeing.

"I will do whatever it takes to get my dream job"

"I can get through my schoolwork with not much problems"

"I have fun at school with my friends"

Note: Young people's voices are included throughout the report to bring the findings to life.

School engagement at age 12

This report reflects the school engagement of ākonga in the middle years of schooling in New Zealand. When the questionnaires were completed, most young people were in year 7 (36.0%) or year 8 (61.0%).

Young people's reports of school engagement gave a mean score of 3.76 (see Table 1), meaning most children were positively engaged at school. However, as seen in Figure 1, a sizable proportion (14.3%, *n* = 632) of young people scored below three, indicating these learners had less positive school engagement experiences.

Table 1: Descriptive statistics for school engagement scores

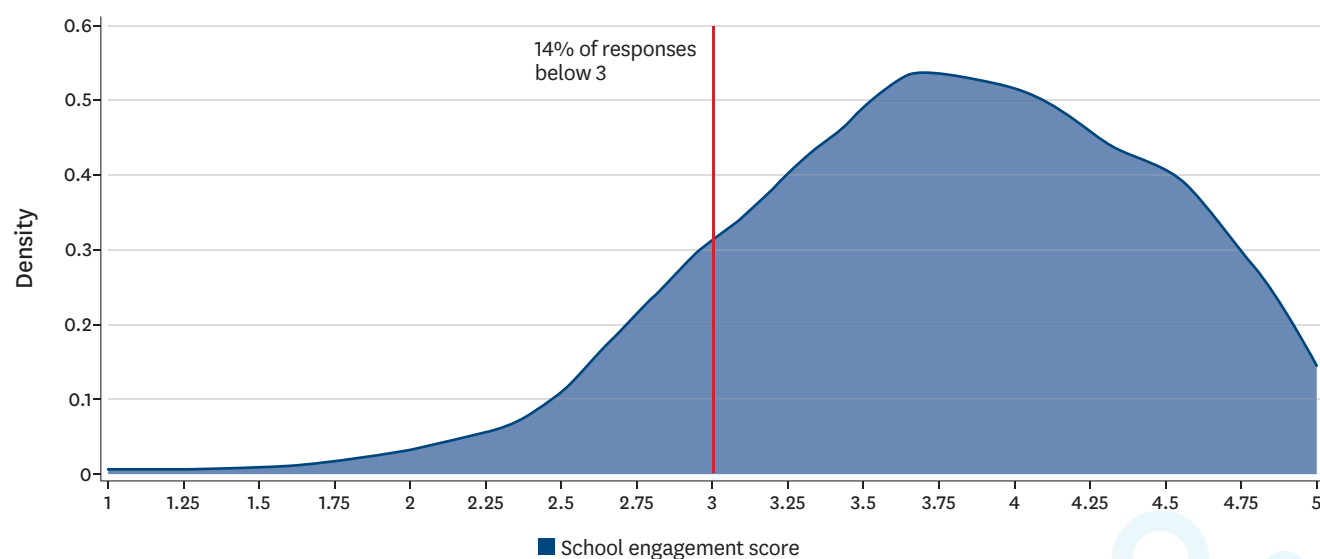|	N	Mean	SD	Range	Skew	Kurtosis
School Engagement Score	4,421	3.76	0.69	1–5	-0.37	-0.19

Figure 1: Distribution of school engagement scores (*n* = 4,421)

Although most young people were positively engaged in school, school engagement scores were investigated further to understand the experiences of specific groups of students.

"I go to an amazing school with amazing teachers, friends and family"

Ethnicity

School engagement across ethnic groups is presented in Figure 2. On average, Asian young people had the highest school engagement scores (M = 3.92, SD = 0.65), and rangatahi Māori had the lowest (M = 3.67, SD = 0.67). When compared with young people who identified solely as European (M = 3.75, SD = 0.69), Asian young people and Pacific young people had significantly higher engagement scores (Asian: p < .001, d = 0.25; Pacific: M = 3.83, SD = 0.68, p < .01, d = 0.12, see Supplementary material for interpretation (6-7)). Rangatahi Māori also had significantly lower scores (p < .01; d = 0.12); however, the magnitude of these differences were small. There was no significant score difference between Sole European and 'Other' young people (p > .05).

Gender

Associations were found between young people's school engagement and gender identity (see Figure 3). On average, cisgender girls (M = 3.89, SD = 0.68) followed by cisgender boys (M = 3.72, SD = 0.67) had the highest mean scores. Transgender, non-binary, and young people who were unsure of their gender had the lowest mean scores (M = 3.61, SD = 0.71). Scores were statistically significant between groups (p < .001), and the magnitude of the difference between cisgender girls and young people in the transgender, non-binary group and those who were unsure of their gender was substantial (d = 0.40).

Figure 2: School engagement scores by ethnicity

Note: Participants who reported more than one ethnic group were counted once in each group, except for the "Sole European" group, which includes young people who identified as European only.

Figure 3: School engagement scores by gender (n = 4,421)

These trends were consistent across all ethnicities (see Figure 4A-E). The distribution of cisgender girls skews towards higher reports of school engagement than cisgender boys, who have a lower peak distribution (regardless of ethnic identity). Of particular concern is the school engagement of transgender and non-binary ākonga, and those who are unsure of their gender, who have a broader distribution and a tendency towards lower mean scores.

These results show that aspects of school engagement are experienced differently based on gender identity and ethnic identity. Consideration needs to be given to important aspects of young people's identities when implementing strategies to support them.
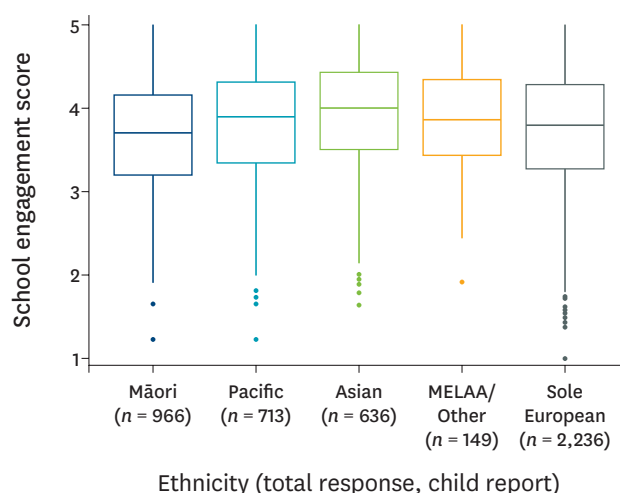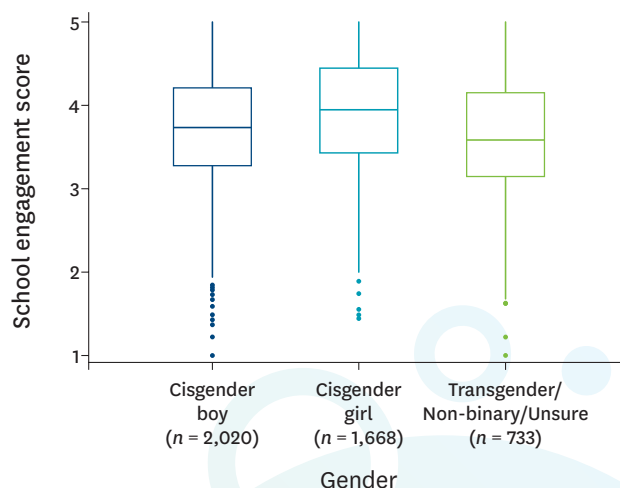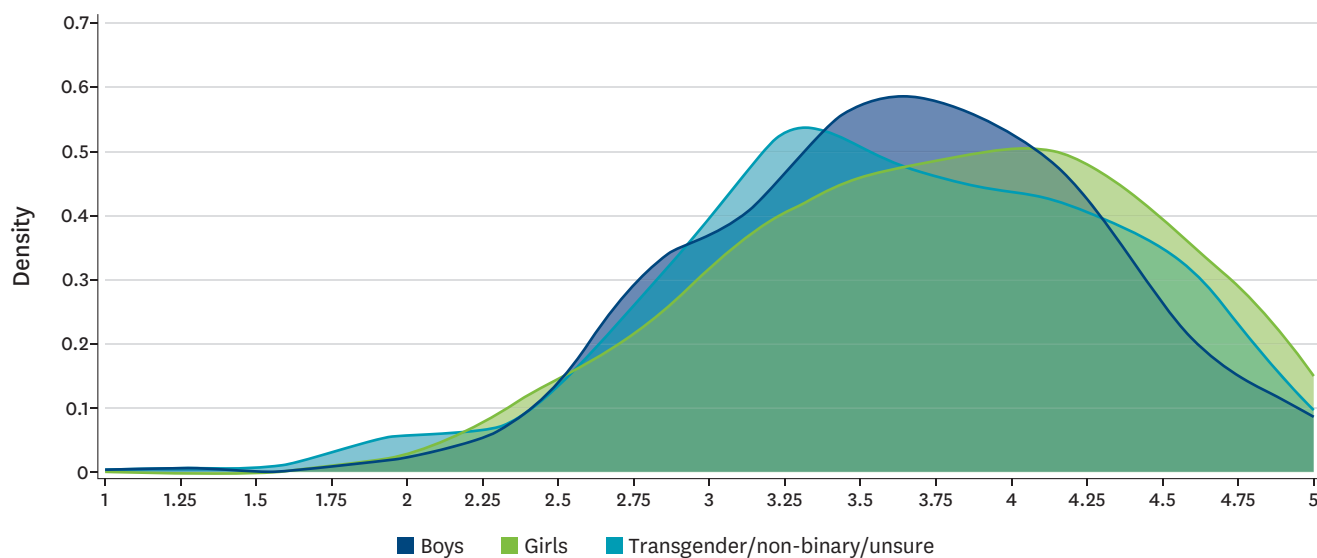
A.School engagement score distribution by ethnicity - Māori

Boys   Girls   Transgender/non-binary/unsure

B. School engagement score distribution by ethnicity - Pacific

Boys   Girls   Transgender/non-binary/unsure

C. School engagement score distribution by ethnicity - Asian

Boys   Girls   Transgender/non-binary/unsure

D. School engagement score distribution by ethnicity - Other

E. School engagement score distribution by ethnicity - Sole European

Figure 4A-E: Distribution of school engagement scores by ethnicity and gender

Note: Participants who reported more than one ethnic group are counted once in each group reported, except for the "Sole European" group, which includes young people who identified as European only.
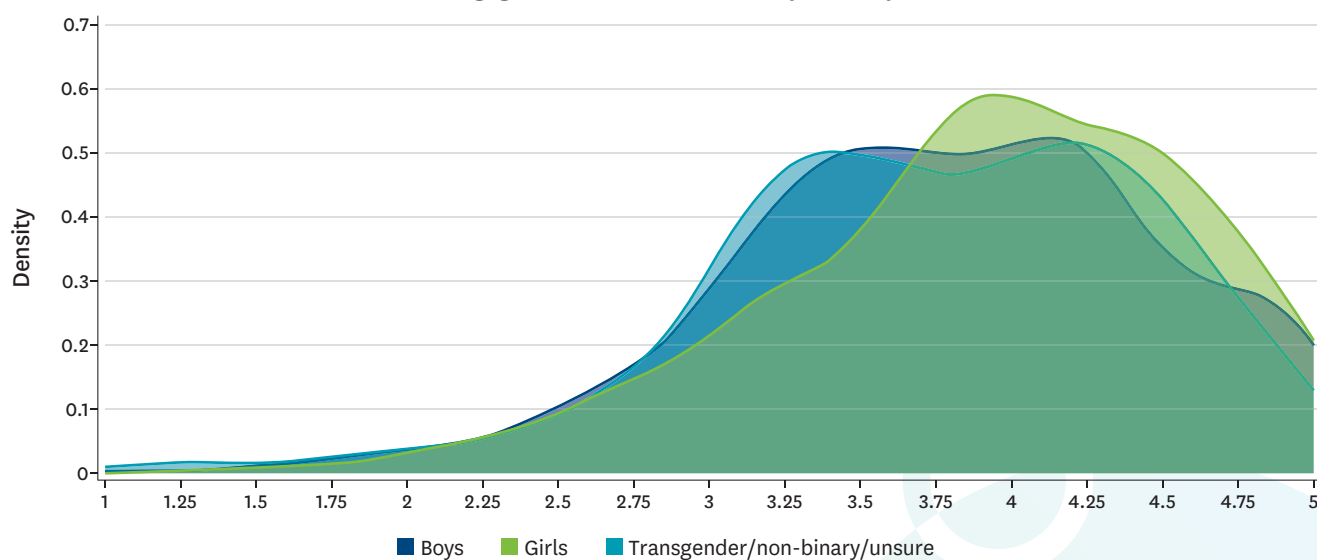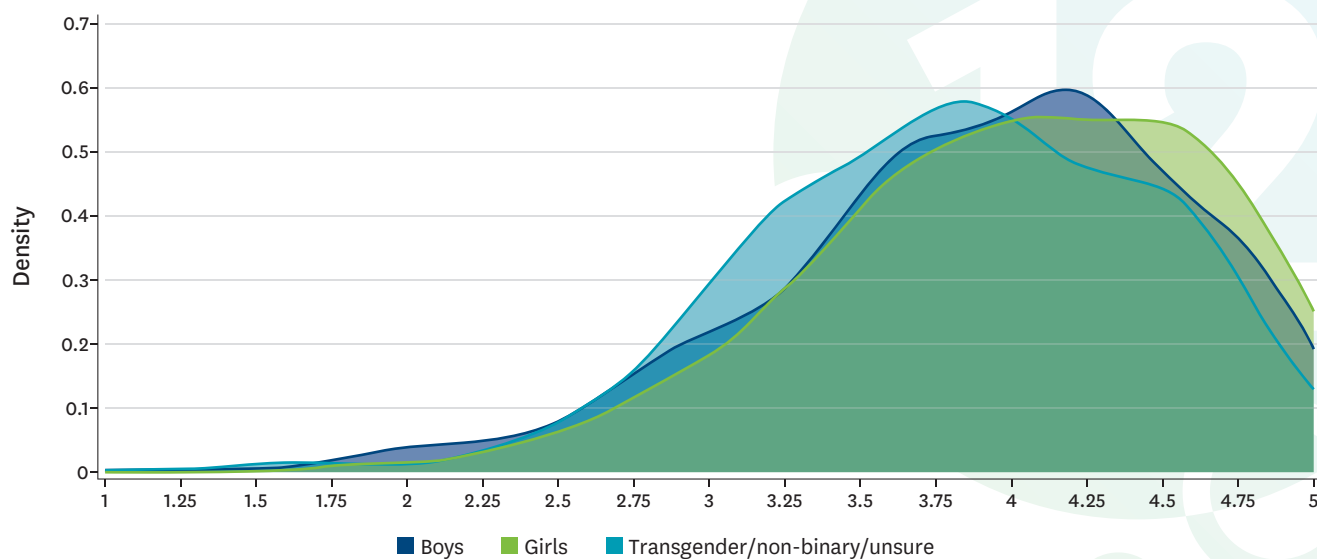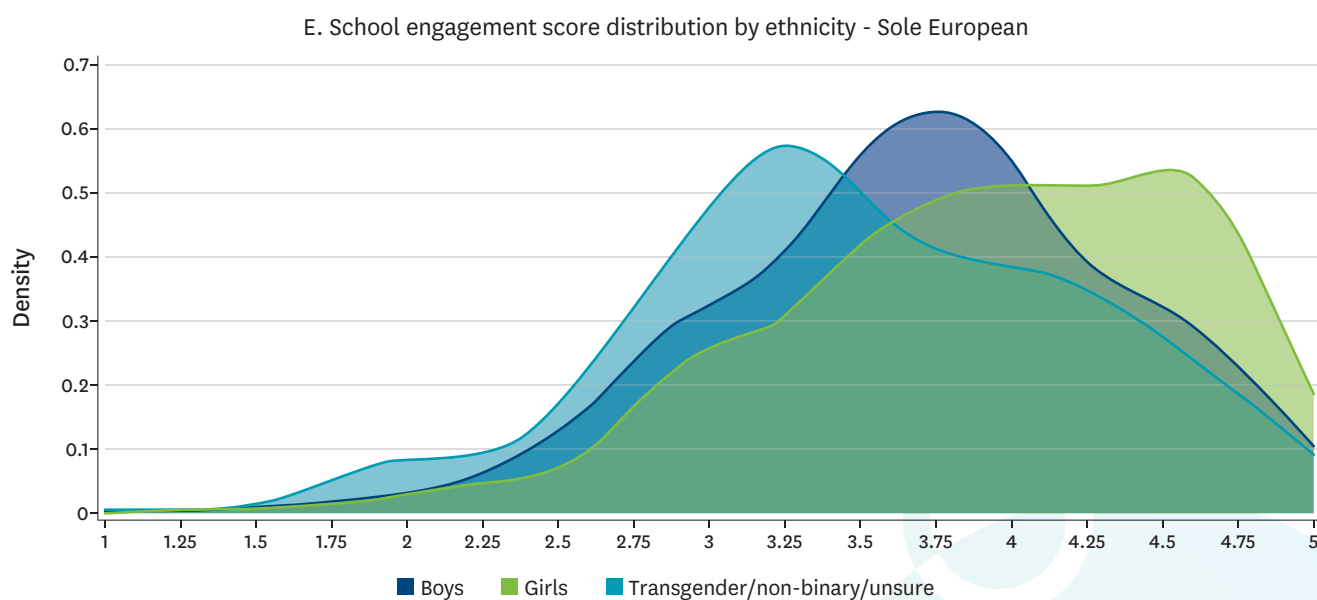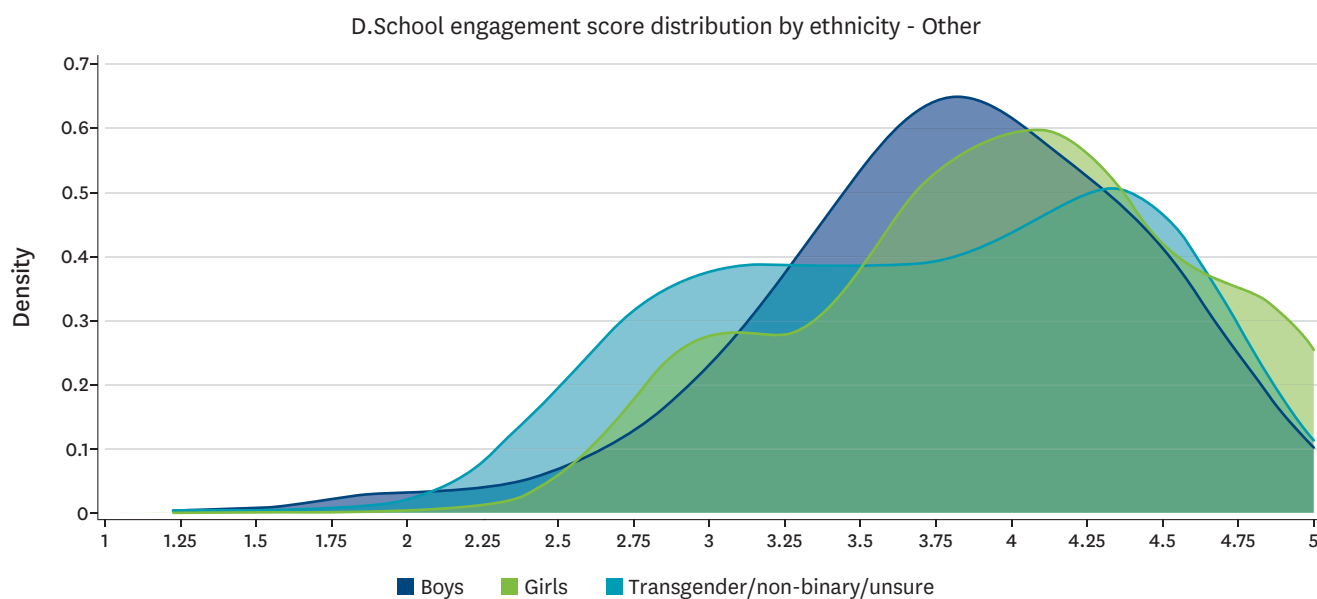
Deprivation

When school engagement was examined in relation to area-level socioeconomic deprivation (NZDep18), there were no significant differences in mean scores across the ten deciles, suggesting the neighbourhoods young people lived in were not associated with school engagement scores. However, this measure of area-level deprivation only accounts for some elements of deprivation; it does not measure affluence or the resources available to communities.

When household-level deprivation was considered (using the DEP-17 index), young people living in households with no/little material hardship had a significantly higher mean school engagement score ($M = 3.77$, $SD = 0.68$) than those living in households experiencing material hardship ($M = 3.55$, $SD = 0.72$, $p < .001$; $d = .32$; see Figure 5). Despite this, young people living in severe material hardship did not have significantly different scores than those experiencing no/little material hardship ($M = 3.74$, $SD = 0.79$, $p > .05$). These findings are explored later in this report.

Additional learning needs

School engagement scores were also considered in relation to parent-reported additional learning needs to understand whether differences in school engagement scores were evident across different need types (for definitions, see Supplementary material). Figure 6 shows the distribution of school engagement scores across different learning needs (e.g., sensory impairment, speech and language impairment, ADHD).
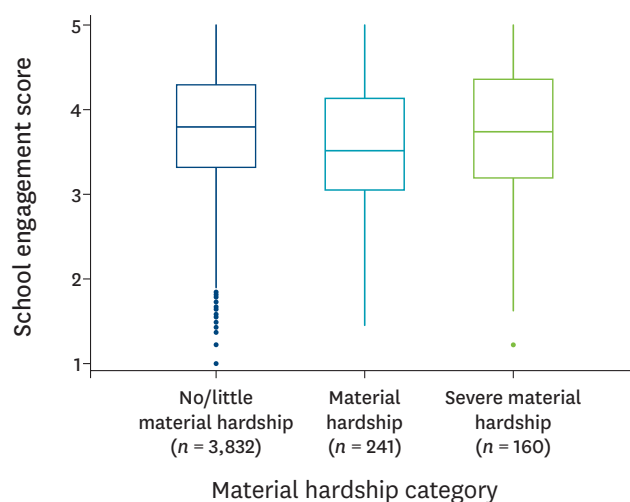

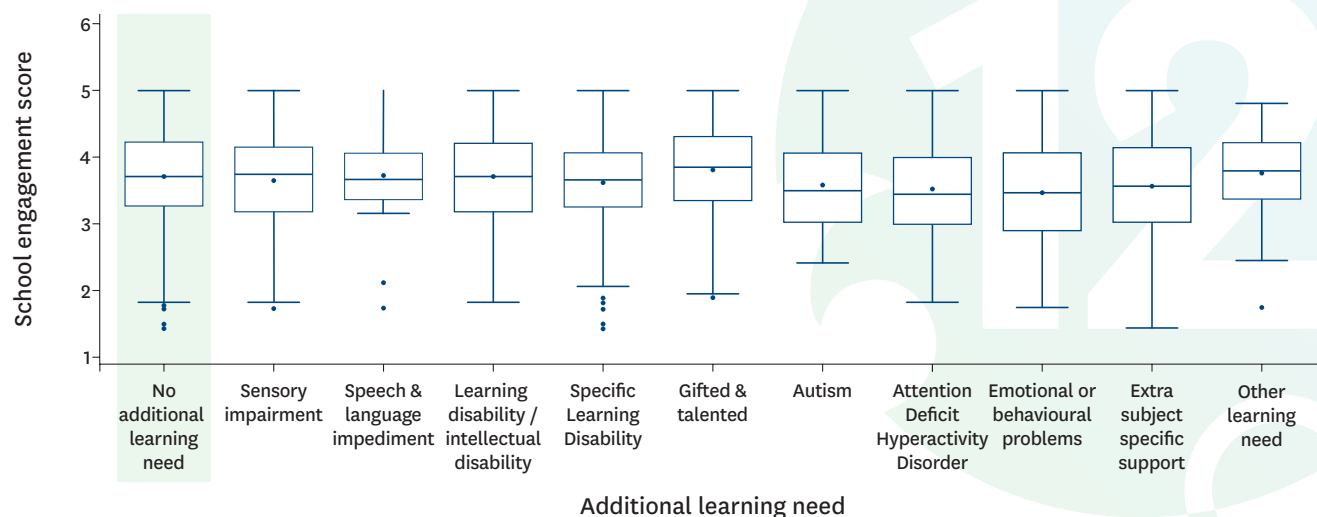**Figure 5: School engagement scores by household material hardship**

Figure 6: School engagement scores by parent-reported additional learning need

When compared with children who had no identified learning need, children who were reported to have the following difficulties/learning needs had, on average, significantly lower mean school engagement scores (see Table 2):

- specific learning disability (includes specific learning disabilities in literacy, numeracy, or writing, developmental coordination disorder, and auditory processing disorder),

- autism,

- attention deficit hyperactivity disorder (ADHD),

- emotional or behavioural problems, and

- those requiring extra subject-specific support.

These differences were sizeable, suggesting that there are differences in school engagement scores by type of learning need (for effect sizes, see Table 2).

Table 2: School engagement by type of learning need

	Mean	SD	Significantly different from "No additional learning need"	Cohen's *d* Effect Size
No additional learning need (*n* = 3,146)	3.78	0.68	-	-
Sensory impairment (*n* = 73)	3.65	0.76	No	-
Speech & language impairment (*n* = 38)	3.72	0.65	No	-
Learning disability/intellectual disability (*n* = 91)	3.71	0.70	No	-
Specific Learning Disability (*n* = 272)	3.63	0.65	Yes (*p* < .001)	0.21
Gifted & talented (*n* = 402)	3.81	0.67	No	-
Autism (*n* = 95)	3.57	0.68	Yes (*p* < .01)	0.30
Attention Deficit Hyperactivity Disorder (ADHD) (*n* = 129)	3.52	0.72	Yes (*p* < .001)	0.36
Emotional or behavioural problems (*n* = 94)	3.46	0.77	Yes (*p* < .001)	0.43
Extra subject-specific support (*n* = 112)	3.57	0.76	Yes (*p* < .01)	0.29
Other learning need (*n* = 61)	3.76	0.67	No	-

"I think the best thing about being me is everyone accepts me for who I am. I am someone who loves and cares for everybody"

How has emotional school engagement changed for young people since age 8?

In March 2020, the COVID-19 pandemic disrupted day-to-day schooling and rapidly shifted education to distance learning. While schools, families, students, and the Ministry of Education worked together to overcome the challenges of the pandemic, relatively little is known about how learners fared following the lockdowns. *Growing Up in New Zealand* has data on emotional school engagement before the pandemic (when the children were approximately eight-years-old), early in the pandemic in May 2020 (approximately aged 10), and again when they were 12 years old.[1] Each time, the cohort was asked to report on six items relating to their satisfaction with school, including how much they liked school and whether they found school interesting. These data provide insight into the patterns of emotional school engagement for young people in New Zealand across time.

Using a matched sample (i.e., young people who completed the questionnaires at all three time points, *n* = 1,792), Figure 7 shows the distribution of emotional engagement scores at each of the data collection points:

- At age 8: Mean = 4.01 (SD = 0.83)

- At age 10, early in the pandemic: Mean = 3.11 (SD = 1.01)

- At age 12: Mean = 3.52 (SD = 1.00)

These findings indicate that whilst the mean engagement score dropped significantly at the start of the pandemic (when most children were learning from home) compared to at age 8, there was some improvement in emotional engagement since the initial lockdown. However, this recovery was not to the extent of pre-COVID times. This shift in emotional engagement may be due to the COVID-19 pandemic and the resulting changes in school modality (e.g. learning from home), however transitions between schools, and/or other age-related factors, may also have contributed to the shifts in emotional engagement scores.
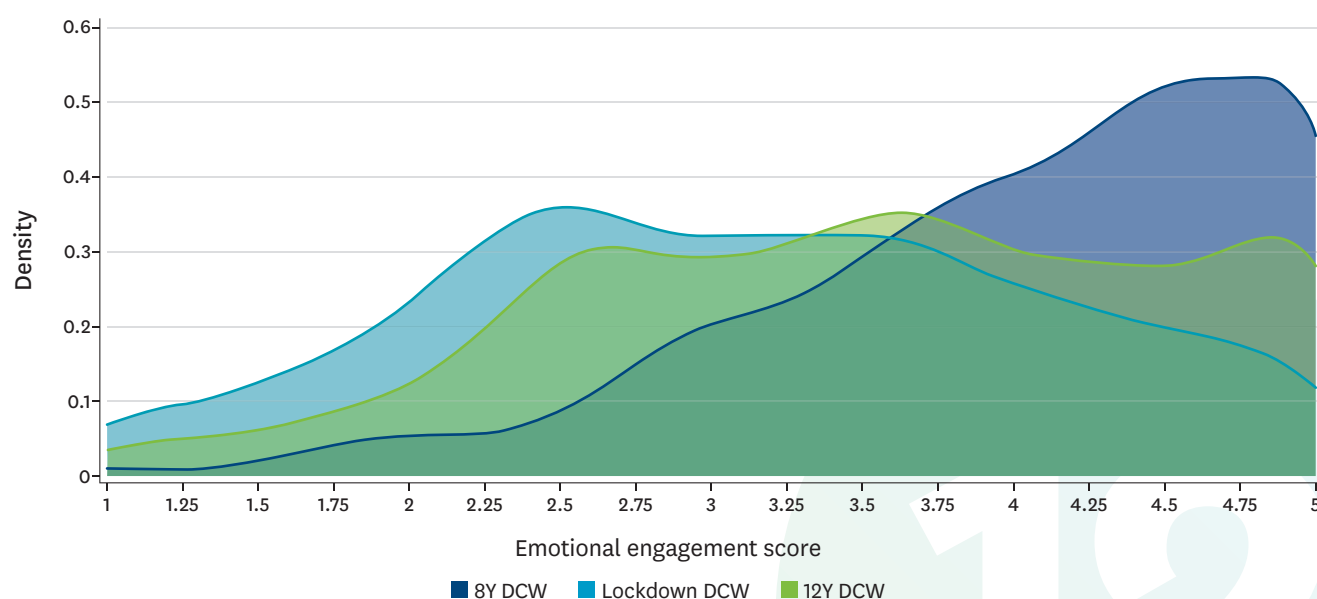

Figure 7: Emotional engagement at 8-year, lockdown survey and 12-year data collection waves (matched sample, *n* = 1,792)

When considering the reports of all young people who participated in the 8-year and 12-year DCW (*n* = 4,064), the findings are similar to those in Figure 7. The mean emotional engagement score at age 8 was 3.96 (*SD* = 0.85), and dropped to 3.51 (*SD* = 0.99, *d* = 0.49) at age 12.

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[1] *Data on behavioural and cognitive engagement have only been collected at the 12Y DCW, so comparisons across time were not assessed for these aspects of school engagement.*

What contextual factors enhance school engagement at age 12?

While the previous sections of this report investigated how school engagement differed for ākonga of various sociodemographic characteristics, contextual factors were also explored to understand what can enhance school engagement at age 12. Figure 8 provides an overview of the results from the multiple linear regression, which was used to examine how school, whānau/family, and individual factors were associated with school engagement. See Supplementary material for full details.
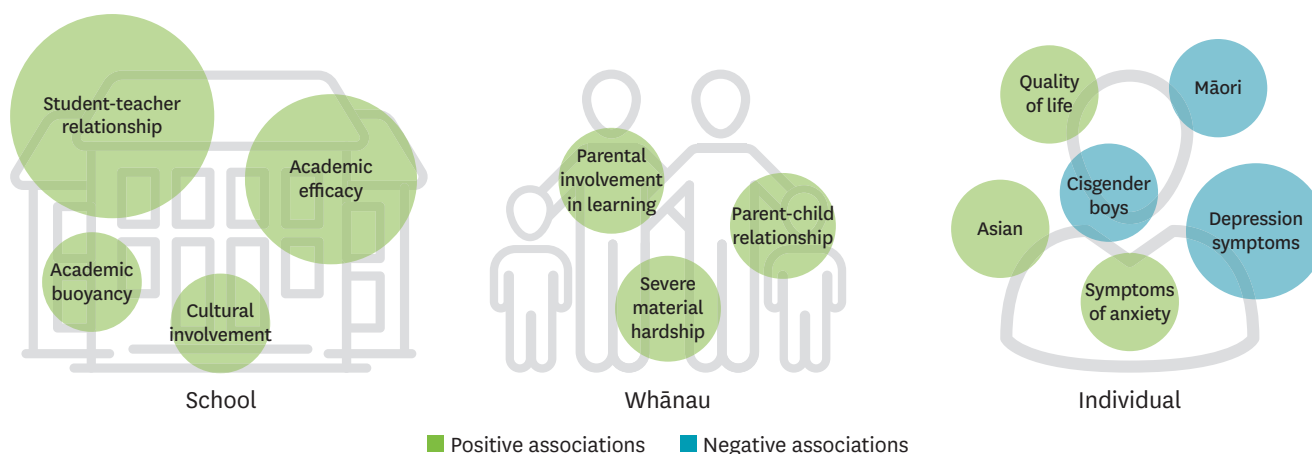

Figure 8: Significant contextual factors for overall school engagement

Note 1: A mix of categorical and continuous variables were used in the modelling. For the categorical variables, the reference groups of cisgender girls, European (prioritised ethnicity), no/little material hardship, and no involvement in cultural activities were used.

Note 2: Learning needs, material hardship, those who identified as transgender/non-binary/unsure, and those of 'Pacific' or 'Other' ethnicity were non-significant factors in the model output.

Note 3: The circle size corresponds to the strength of association between the factor and school engagement.

School factors

School-related factors were found to have the strongest positive relationship with school engagement. These factors included the student-teacher relationship, academic efficacy, feelings of academic buoyancy, and involvement in cultural activities (although these were not necessarily within the school environment). The combination of these factors suggests that the overall school culture plays a vital role in promoting school engagement.

The multivariate model highlighted that students' views of their relationship with their teacher was the most strongly associated factor with school engagement scores. Therefore, the more positively ākonga perceived their relationship with their teacher, the greater likelihood of higher reports of school engagement; a one standard deviation increase in student-teacher relationship scores led to a 0.26 increase in school engagement score. The student-teacher relationship included whether the student feels their teacher listens to them, helps them, respects them and is fair to them. This finding aligns with earlier research emphasising that adult-youth relationships are important in fostering positive youth development (8).

Similarly, when ākonga reported that they believed they were capable of academic success (i.e., academic efficacy), higher school engagement scores were more likely. Academic efficacy, also strongly associated with school engagement, refers to whether students feel they can master skills, complete work, and learn at school. As schools and teachers are best placed to focus on relationship-building with individual students, these results indicate that it is crucial for schools and policymakers to:

· promote an inclusive school environment,

· prioritise strong, positive student-teacher relationships within the school context by providing teachers with professional development opportunities to nurture relationship-building skills with their students, and

· provide opportunities for ākonga to be successful learners with the right amount of challenge.

Family / whānau factors

All family/whānau-related factors had a small but significant positive association with school engagement. This included parental involvement in learning and aspects of the parent-child relationship, suggesting that home life also plays a vital role in school engagement.

Unexpectedly, we found a significant positive association between severe material hardship and school engagement. The reasoning for this was not explicit, but it is possible these students may be leveraging resources within their communities, such as social support (9,10). Despite the hardship challenges these students were exposed to, protective factors such as strong student-teacher relationships and supportive school environments may be supporting these students to engage well in school. However, this does not negate the potentially harmful effects of hardship, nor does it imply that severe material hardship will continue to be positively associated with school engagement moving forward. While protective factors may have buffered the harmful effects of hardship at this time, research shows that cumulative experiences of adversity are likely to pose a threat to academic success and healthy development (11). These findings and conclusions warrant further investigation.

Individual factors

The model suggests that rangatahi Māori reported lower school engagement than young people who identified as Sole European, even after controlling for other factors; however, the effect size was small. This finding may reflect that rangatahi Māori are often subject to discrimination and racism based on their ethnicity and that these experiences may affect their school engagement. This interpretation is supported by previous New Zealand research (13-14) and prompts further investigation into rangatahi Māori's experiences of discrimination. It may also be because the curriculum and school culture may not sufficiently recognise Māori, which can lead to reduced engagement. Inclusive and responsive environments that encourage rangatahi Māori to engage and achieve in school as Māori would likely promote school engagement (9). Although earlier analyses suggested otherwise, the multivariate model demonstrated that being of Pacific ethnicity was no longer significantly associated with school engagement scores meaning that differences between Pacific and Sole European ākonga were likely accounted for by other factors in the model.

Similarly, earlier analyses in this report outlined that school engagement scores were significantly different by gender identity. However, multivariate analyses suggested that being a cisgender boy was associated with lower engagement scores than cisgender girls. Additionally in the model, transgender, non-binary young people and those unsure of their gender did not have significantly different school engagement scores than cisgender girls. Therefore, cisgender boys may also be at heightened risk of reduced school engagement for reasons not identified in the model. Despite these differences, the findings of the earlier analyses remain relevant, and therefore schools must develop inclusive environments that are supportive and responsive to all, especially gender minority ākonga.

Symptoms of anxiety were noted to have a positive association with school engagement, although with a small effect size. A potential explanation for this finding may be similar to findings on school achievement, where moderate levels of anxiety can help to facilitate performance when channelled into schoolwork (12). However, these findings also require further investigation.

In contrast, depression symptoms were strongly associated with lower school engagement scores. This indicates that young people experiencing symptoms of depression are at greater risk of lower school engagement. Early identification and targeted interventions are recommended to promote school engagement for these young people.

Quality of life, that is how young people view their life in relation to their culture, values, and goals, was also positively associated with school engagement. This finding may suggest that young people who perceive their quality of life as higher are motivated and interested in school.

Relevance for policy and practice

This report has explored school engagement among 12-year-olds in New Zealand. Cognitive, emotional, and behavioural engagement in school is crucial for equipping young people with life skills and preparing them for the workforce (15). This report highlights the need for more inclusive and responsive environments in New Zealand to ensure adequate engagement for all students. The multivariate analysis showed that student-teacher relationships, academic efficacy, and depression symptoms were strongly associated with school engagement. However, it is important not to lose sight of what the univariate analysis revealed concerning disparities for marginalized groups such as rangatahi Māori, those with certain additional learning needs, and those experiencing material hardship. Based on the findings of this report, five priority recommendations are proposed to improve school engagement for young people in New Zealand.

Recommendation 1: Continue to foster and promote inclusive school environments.

The findings in this report support the Ministry of Education's Attendance and Engagement Strategy (16), which highlights the importance of providing a school environment where ākonga feel safe, see their individual identities and cultures reflected in the school context, and where strong connections between teachers and ākonga are prioritised. The need for flexible, inclusive environments is highlighted across strategic documents (1,16-21), including within the refresh of The New Zealand Curriculum currently underway (22) with a focus on acknowledging the cultures, identities and strengths of ākonga. Inclusive schools would ensure all young people feel supported and have a sense of belonging within their school environment. Strengthening schools and their teachers' abilities to respond to the unique needs and identities of ākonga is critical.

Recommendation 2: Promote the importance of student-teacher relationships for school engagement.

Strong student-teacher relationships, measured by factors such as respect, support, and belief in the student's potential, are significantly linked to school engagement when controlling for other school, home, and demographic characteristics. Due to the strength of this relationship, policymakers and schools should continue to prioritise initiatives to improve these relationships, particularly focusing on ākonga experiencing inequity in school engagement so that they feel that they are listened to, respected, treated fairly, and can approach their teacher for help. This recommendation has important implications for teacher education, staff selection and professional learning and development. This aligns with Deane and Dutton's (8) call for authentic opportunities for building positive and strengths-based interactions both within schools and in the community, as they are vital for positive youth development.

Recommendation 3: Build students' academic efficacy.

Academic efficacy was found to have a strong association with school engagement, suggesting that emphasis should be placed on young people developing a belief that they can be successful in their learning even when faced with challenges. Such beliefs are more likely developed in positive, error-friendly learning environments, where people feel they belong, negative stereotypes are actively critiqued, mistakes are viewed as teachable moments that show we are learning (instead of being feared or embarrassed by them), and where help-seeking is encouraged (9,23-27).

Considering how the curriculum (overt and hidden) and school culture support and recognise different types of knowledge, and having flexibility in the ways ākonga demonstrate knowledge, are also likely to be important for building self-efficacy, school engagement and improving educational outcomes (26).

Recommendation 4: Promote whole-school approaches that enhance inclusive and responsive environments.

This study suggests that certain individuals may report lower engagement than others. Frameworks such as the Minority Stress hypothesis offer insight into where discrimination and oppression are correlated with mental health concerns, including depression (28). The groups in this study that are more likely to report low engagement may face additional stressors from racism, able-ism, homophobia and transphobia, compared to students that are not discriminated in these ways. These additional stressors may also be experienced in other settings; however, because young people spend a lot of time at school, schools are a great place to provide intervention for mental health concerns and to critique such stereotypes (for example, the Australian National University's SOAR programme). Efforts to eliminate discrimination and oppression, and the ensuing stress it produces, are critical to improving mental health outcomes for minoritised groups.

This recommendation supports the Ministry of Education's work to address inequities and racism, with a focus on wellbeing of rangatahi Māori (20-21), Pacific young people (19), and those with learning support needs (17). Also woven throughout these strategic documents is the need to better support gender minority youth, which entails addressing and reducing cisheteronormative practices within school environments.

The Ministry of Education has several resources that align with this recommendation. See:

· Guide to LGBTIQA+ Students

· Putting Student Relationships First

· Inclusive Practice

Recommendation 5: Improve access to services and support for mental wellbeing.

Depression symptoms were negatively associated with low school engagement, highlighting a serious barrier to academic success. Depression symptoms included feeling down, too tired to do things, having poor sleep, feeling lonely, and finding it hard to concentrate.

While monitoring and supporting student wellbeing requires multifaceted support across the different domains of students' lives (e.g., home and wider communities), additional support for schools may help them to better equip teachers and school staff to support students' wellbeing through professional development and training. This may include (but is not limited to) how to talk about and recognise early warning signs of low mood (in self and others), how to discuss mental health with young people, strategies young people can use to help themselves or others, and what services are available. This will equip adults around the young person to address concerns as they arise. This approach has been supported by recent government initiatives, such as the mental health education guidelines which focus on supporting schools to create programmes, and whole of school approaches to mental health education (e.g., TKI Resource: Mental Health Education: A guide for teachers , leaders and school boards).

It is also crucial that young people can readily access early intervention services such as counselling when they experience low mood. For example, free youth-friendly counselling services should be easily accessible and widely available within schools and the community.

Limitations

One of the limitations of these findings is that attrition may be a factor in these results. It is recognised that some young people in the *Growing Up in New Zealand* cohort may not have participated in the data collection waves (and others may not have been recruited into the original study). These young people may have had different school engagement experiences that haven't been captured.

Conclusion

In summary, strong student-teacher relationships and high academic efficacy were positively associated with school engagement whereas depression symptoms was negatively associated. These are areas where policymakers, school leaders, teachers, parents, and the community should all focus to bring about change which may enhance school engagement in young people. Further research into these areas is recommended.

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12
Growing Up in New Zealand
Now We Are Twelve
Life in early adolescence

Further Details

Supplementary material for this snapshot is available to download.

The introduction to the 12-year data collection wave and the methodology used to analyse the 12-year data can be downloaded as a PDF.

About the *Growing Up in New Zealand* Now We Are Twelve snapshot series

The Now We Are 12 Snapshots are accessible summaries of policy-relevant research findings from *Growing Up in New Zealand,* this country's largest longitudinal study of child health and wellbeing. Other snapshots in this series can be found **here**. An **introduction** to the 12-year data collection wave and the **methodology** used to analyse the 12-year data can be downloaded as a PDF. **Supplementary material** for this snapshot can also be downloaded.

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