



**IN FOCUS**

# ACHIEVEMENT IN WRITING

INFORMATION KIT: STUDENT ACHIEVEMENT IN NEW ZEALAND



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Te Tihuhu o te Mātaranga



## Achievement in writing

This monograph analyses student achievement data in writing from Year 5 to Year 12 in New Zealand. It uses data gathered during the development of 60 writing assessment tasks for the Assessment Tools for Teaching and Learning (asTTle). These data were from a representative sample of about 21,000 students collected from 2000 to 2004.

Two main kinds of writing were assessed; those that emphasised the crafting of artistic and sensory qualities with language (poetic) and those that emphasised exchange of ideas (transactional). The assessment tasks were further specified by the type of purpose the writer seeks to achieve:

### Poetic

- recounting personal life experience (recount)
- telling creative or imagined stories (narrate).

### Transactional

- persuading or arguing (persuade)
- instructing (instruct)
- describing or reporting (describe)
- explaining (explain)
- analysing (analyse)<sup>1</sup>.

After five minutes of class-based discussion, students were given about 40 minutes to complete a writing task based on a particular purpose. Each script was then scored for seven content areas against the criteria or characteristics of curriculum Levels 2 to 6 (Coogan, Hoben, & Parr, 2003; Glasswell, Parr, & Aikman, 2001).

The seven content areas were:

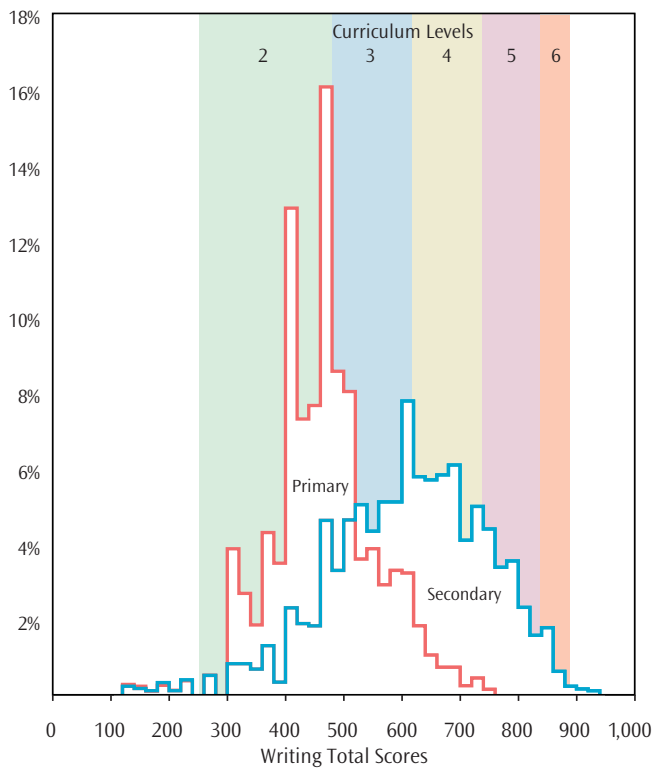
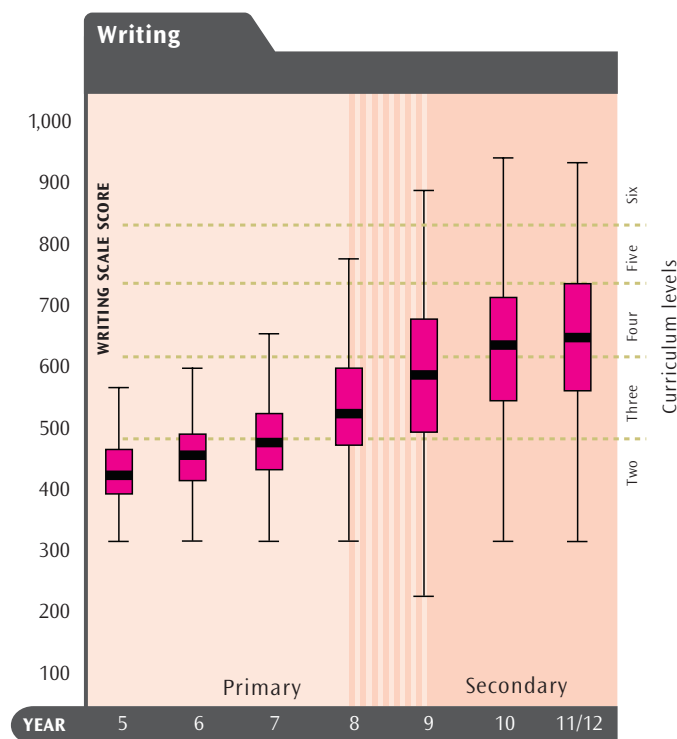
- audience awareness and purpose (audience)
- content or ideas (content)
- organisation or structure (structure)
- language resources (language resources)
- grammar (grammar)
- punctuation (punctuation)
- spelling (spelling).

Teachers read each script and determined which curriculum level description and sub-level (basic, proficient or advanced) best fit each of the seven content areas.

Measures were taken to ensure the scoring was consistent across the many markers. These included training the markers, having them mark a common script each marking day and checking their marking each hour. Generally, it was found that the consistency or reliability of the scoring was sufficiently robust to use the data as the basis for national norms and for reporting on the ability of New Zealand students in writing.



<sup>1</sup> Analysing was not administered to students below Year 8 as it was not considered an appropriate set of tasks for those children.

**FIGURE 1.** Distribution of writing total scores.**FIGURE 2.** Writing score and curriculum level by year.

## Overall writing achievement

The average score across all years in writing was 510, or curriculum Level 3 basic<sup>2</sup>, with the range covering around 1,000 points (Figure 1). Like mathematics and reading, the data were somewhat bimodal with separate peaks representing primary and secondary students. There was a large overlap in the distribution of writing scores between primary and secondary school students: nearly half of secondary school students had the same distribution of scores as primary school students. This indicated that the writing ability of a large number of secondary school students was not improving beyond curriculum Level 3 (that is, they only wrote as well as many primary school children).

## Writing achievement across student years

The average achievement of students in writing increased an average of 37 points a year (Figure 2). This was much lower than the average yearly improvement seen in mathematics (62 points) and reading (53 points). Average achievement in writing only reached curriculum Level 4 in Year 11/12<sup>3</sup>, whereas it reached Level 5 in reading and mathematics by the same time. There was a noticeably steeper increase in the average achievement in writing in Years 8, 9, and 10 compared with other years.

2 The range of scores for each curriculum level is divided into basic, proficient and advanced.

3 As the number of students sampled from Year 12 was low, their data were merged with Year 11 students for this and subsequent analyses.

## Writing content areas

Average student performance across the seven content areas of writing followed a similar pattern of gains from Years 5 to 12 (Figure 3). Spelling and grammar generated the highest scores (but still only, on average, in curriculum Level 4), while punctuation produced the lowest scores. This is especially noticeable through the secondary school years when punctuation fell well behind, remaining in curriculum Level 3.

## Writing purposes

Student ability to write for different purposes was relatively similar across the primary school years; all purposes fell within curriculum level 3 – and, on average, within 50 points of each other – by the end of Year 8 (Figure 4). However, the differences were greater for each purpose when students entered secondary school, with the difference between narrating and recounting increasing to about 150 points. Some purposes, on average, could be done at the Level 4 standard while others remained at the boundary between Level 3 and 4 or were wholly in Level 3.

The impact of the school sector can also be seen on the relative strengths of each purpose. In primary school the purposes of explaining and instructing received the highest scores (curriculum Level 3), while describing obtained the lowest (on the boundary between Levels 2 and 3). In contrast, at secondary school, narrating and describing produced the highest scores (Level 4), while recounting scored lowest (Level 3). Coogan, Hoben, and Parr (2003) have suggested that the creative story-telling or poetic description purposes are more important to the secondary school English writing qualifications (eg, NCEA English 1.1 Produce Creative Writing) than the recount purpose, and this may be a first explanation for the differences.

FIGURE 3. Average writing content area score and curriculum level by year.

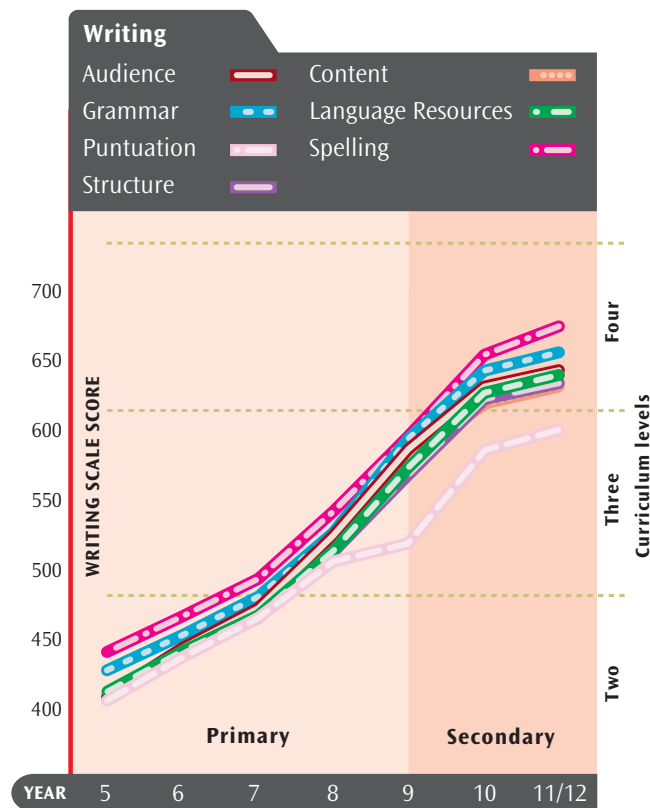


FIGURE 4. Average writing purpose score and curriculum level by year.

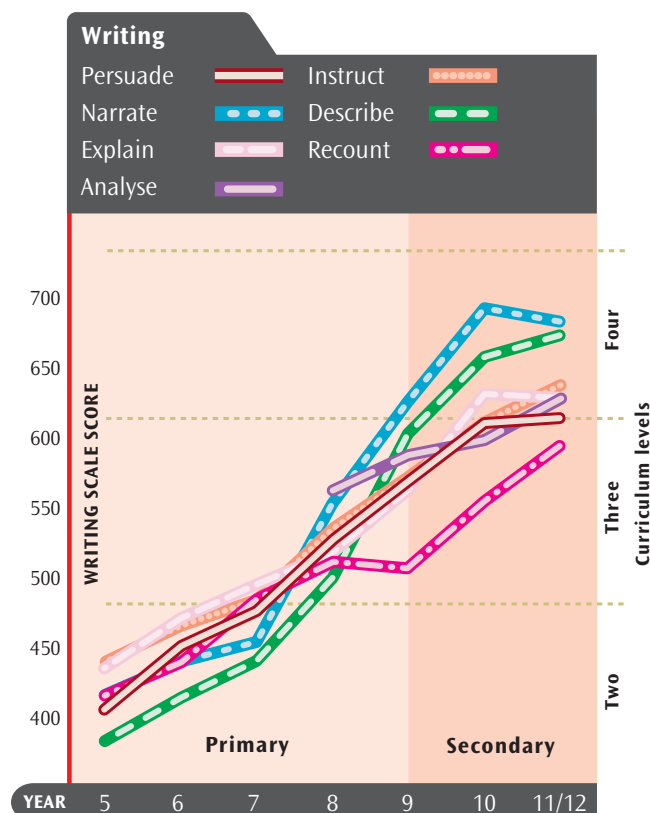


FIGURE 5. Average writing score and curriculum level by gender and year.

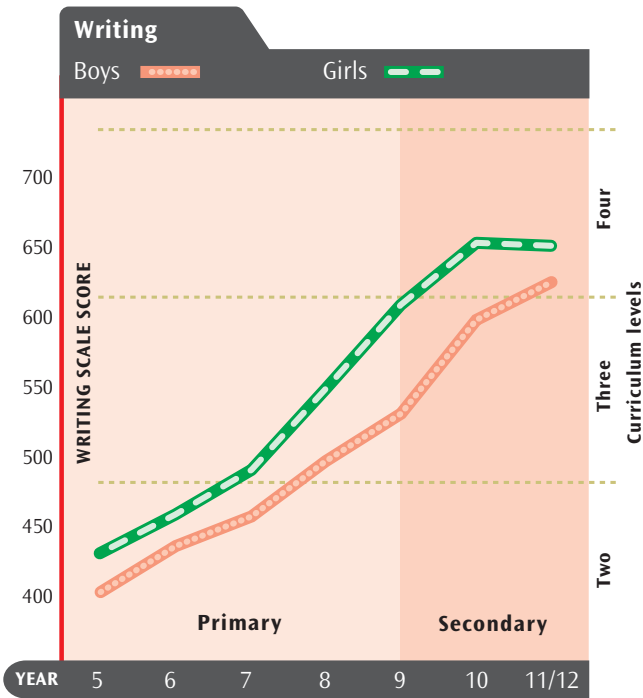
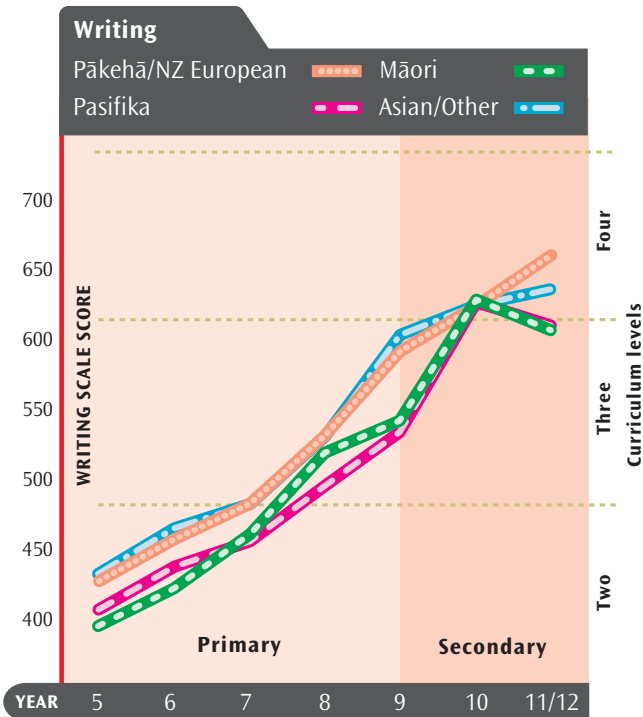


FIGURE 6. Average writing score and curriculum level by ethnicity and year.



## Gender

On average, girls achieved higher than boys in writing throughout all years of schooling (an average effect-size of 0.43<sup>4</sup>) (Figure 5). During Years 5 to 7 this difference was around 30 points (or about one year), but from Year 8 girls' average performance in writing accelerated at a much greater rate than boys to be nearly 80 points (or approximately two school years) ahead by Year 9. The difference between boys and girls was consistently much larger in writing than for reading or mathematics. In terms of curriculum levels, girls reached Level 3 and Level 4 on average one year ahead of boys.

## Ethnicity

Pākehā/New Zealand European and Asian/Other<sup>5</sup> students had higher average writing scores than Māori and Pasifika students. The difference, on average, was around 30 points, or one year. Nevertheless, on average, all ethnicities entered curriculum Level 3 in Year 8 and Level 4 in Year 10. The convergence in scores at Year 10 shows the gap between groups can be closed<sup>6</sup>.

4 Effect size is a statistical method of taking into account the variation and sample size of the groups whose averages you are comparing. An effect size of greater than 0.4 is generally regarded as exceeding the average of all educational interventions.

5 Note the number of students reporting themselves as Asian or Other ethnicity was too low to provide robust statistics and so these two categories have been merged.

6 The average for Māori at Year 10 should be taken cautiously as the sample size (N=98) was much lower than other years for Māori.

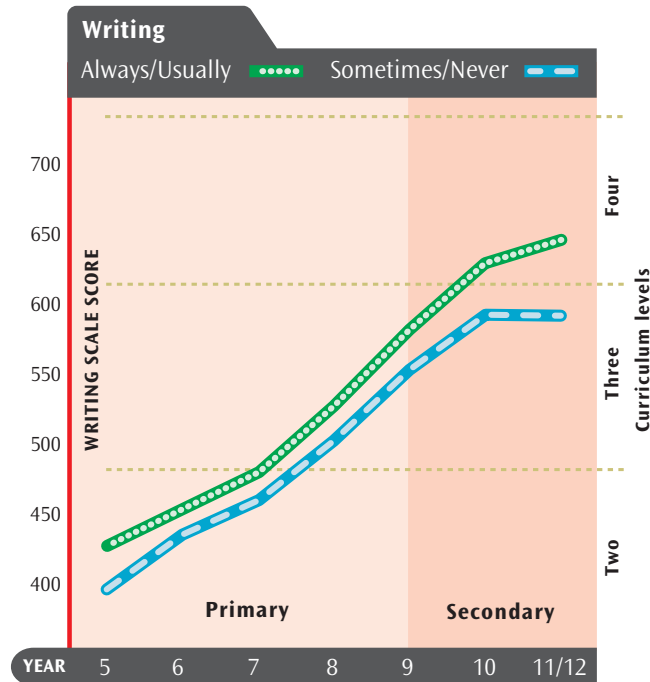
## English at home

In terms of dominant language at home, students were classified into two categories: those who always or usually spoke English at home, and those who sometimes or never spoke English at home. Those students who spoke English at home ‘always’ or ‘usually’ consistently – across all years – had a higher average score than those who did not (Figure 7). Although this difference was small at primary school – around 20 points – it gradually increased throughout secondary school to reach 55 points (or more than one year’s difference) at Years 11 and 12. Students for whom English was the dominant language entered Level 3, on average, one year ahead of students for whom English was not their dominant language at home. On average, the latter students did not reach Level 4, while the English-dominant students entered Level 4 in Year 10. This divergence is a matter of concern, and further effort is needed to increase the positive impact of schooling and instruction on these students.

## School decile

In writing there was no definitive trend that children from lower decile schools always scored worse than those in higher decile schools (Figure 8). In both primary (Years 5 to 8) and secondary (Years 9 to 12), students in the highest decile schools did outperform the lowest decile schools, but far more importantly there was very little difference in achievement among deciles 2 and 8 in primary, and among deciles 3 and 10 in secondary. All students in primary years averaged scores within curriculum Level 2 (except for those at the two highest deciles), while all students in secondary school averaged scores within or on the boundary of Level 4 (except for those in decile 1 and 2 schools). These results indicated, except when comparing the very highest to the very lowest deciles, school decile was not highly correlated with writing achievement.

**FIGURE 7.** Average writing score and curriculum level by frequency of English spoken at home and year.



**FIGURE 8.** Average writing score and curriculum level across school decile for primary and secondary school students.

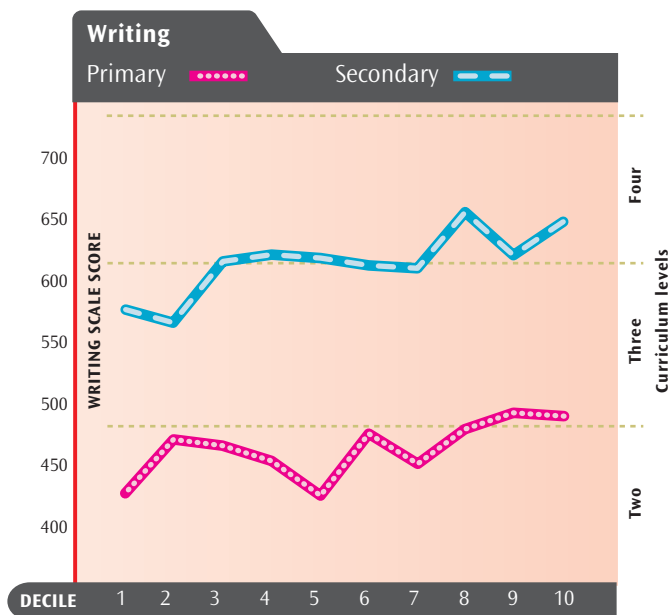
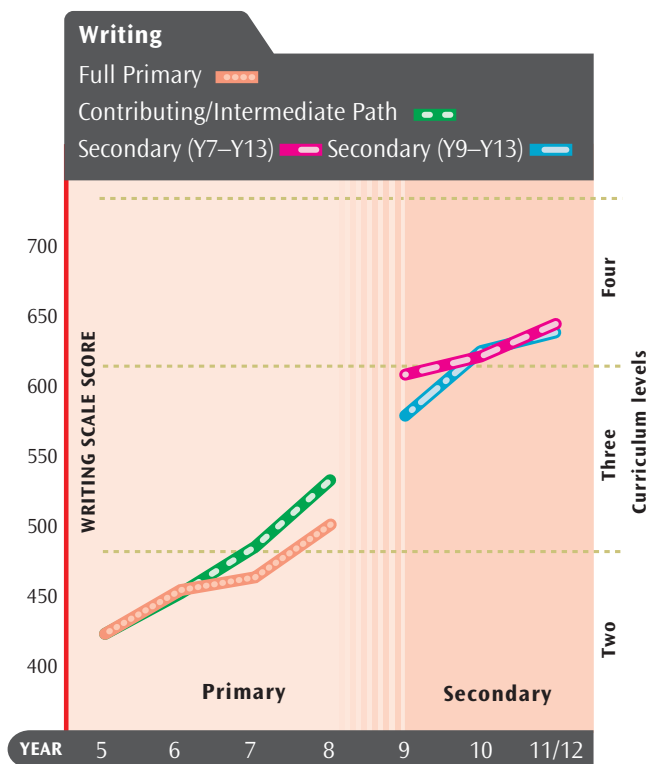


FIGURE 9. Average writing score and curriculum level by school type and year.

## School type

Achievement in writing followed a nearly straight line improvement from contributing to intermediate to Year 9 to 13 secondary schools (Figure 9). Students in full primaries were approximately 30 points behind intermediates at Year 7 and 8, with students in intermediate schools entering curriculum Level 3, on average, a year ahead of those in full primary schools. At Year 9 students attending secondary schools with attached intermediate years (secondary Year 9 to 13)<sup>7</sup> performed better on average than students attending Year 9 to 13 secondary schools, but this difference was negligible in later years. By Year 10 all students, regardless of type, averaged within Level 4.



<sup>7</sup> Students at Year 7 and Year 8 at secondary (Years 7 to 13) schools were not tested.

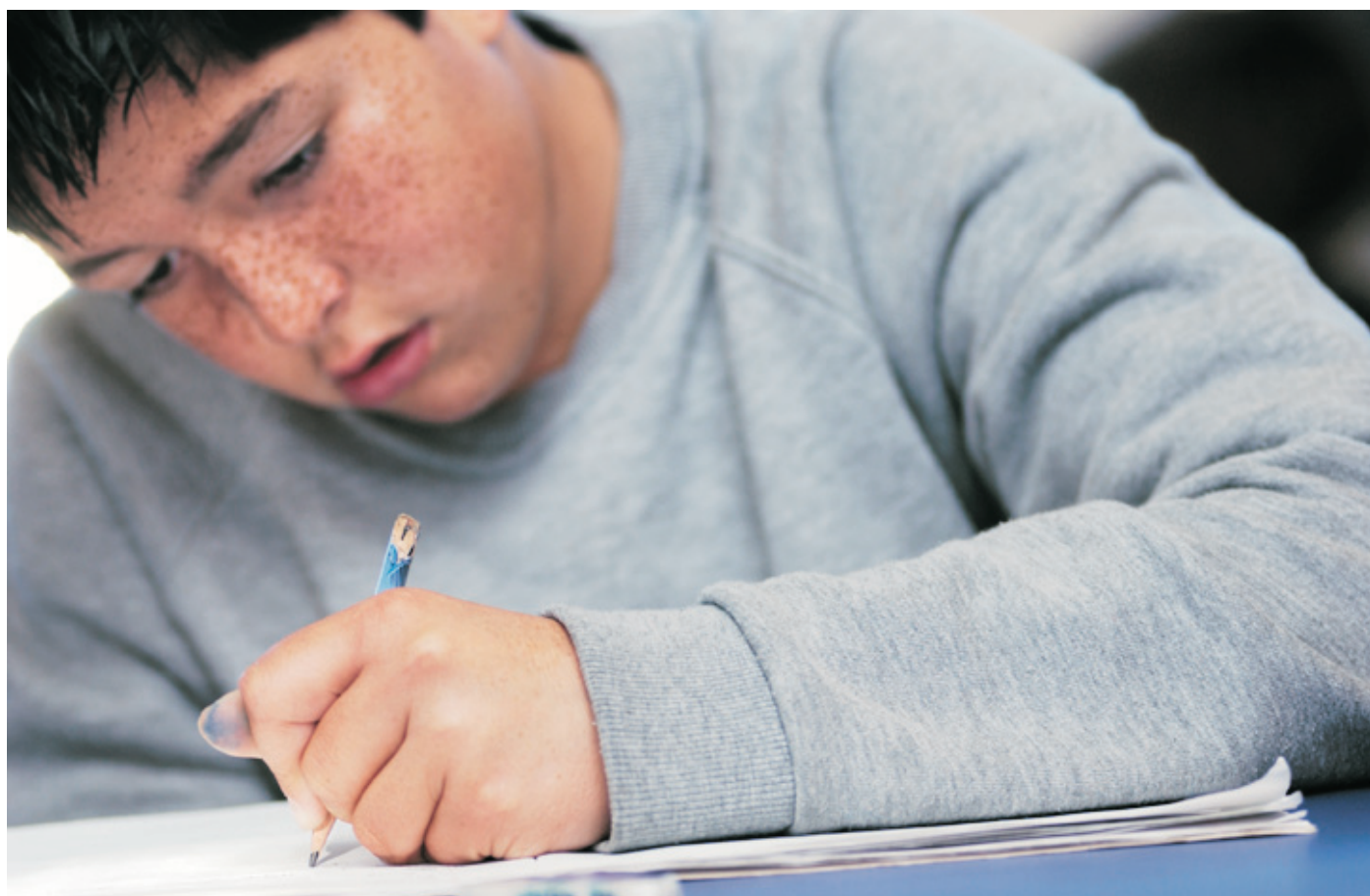


## Conclusion

The main findings were:

- a large number of students performed poorly in writing, their general level of achievement lying a curriculum level below that of their peers in reading and mathematics by Year 11/12
- the pattern of achievement in the different content areas of writing was similar across Years 5 to 12
- in secondary school, achievement in the different purposes of writing became more variable
- boys consistently scored lower than girls in writing across all years, although boys started to close the gap at secondary school
- student ethnicity and use of English at home attributed to about a year's difference in writing achievement
- school decile was not a significant factor in explaining performance in writing
- students at intermediate schools, on average, outperformed those at full primaries.

The most striking result from the analysis of the writing data was the large number of students who wrote poorly and that this persisted throughout intermediate and secondary years. Although there were students who excelled at writing each year, the data suggests many students did not improve in writing over the years. This indicates a need for further explicit instruction in writing.



## References

Coogan, P., Hoben, N., & Parr, J. (2003). *Written language curriculum framework and map: Levels 5-6*. Project asTTle Technical Report 37. University of Auckland/Ministry of Education.

See: [www.tki.org.nz/r/asttle/pdf/technical-reports/techreport37.pdf](http://www.tki.org.nz/r/asttle/pdf/technical-reports/techreport37.pdf)

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See: [www.tki.org.nz/r/asttle/pdf/technical-reports/techreport06.pdf](http://www.tki.org.nz/r/asttle/pdf/technical-reports/techreport06.pdf)





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