

Year 4 cohort

The numeracy, reading, and writing performance of year four students.

Year four students who participated in PILNA 2021 have had different schooling experiences from previous PILNA cohorts. Formal learning in Pacific countries has been significantly disrupted since 2019, when the Covid-19 pandemic resulted in periodic school closures throughout the region. Other health-related events and natural disasters, such as the measles outbreak in Samoa and the Hunga Tonga-Hunga Ha'apai volcanic eruption, have created further learning disruptions.

These events may have also had wider impacts on school-age children, such as changes to their mental health, community commitments, and their access to education, although further research is needed to validate any wider impacts of these events.

What is relatively unique for this 2021 year four cohort compared to the 2021 year six cohort is that the events between 2019 and 2021 cover a greater proportion of their formal schooling to date. Most of their formal schooling years have been subject to periodic education disruptions.

PILNA 2021 is the first large-scale regional assessment to show the consequences of these disruptions. It has collected the information necessary to link them to student performance and analysis of this information will be undertaken in the near future and provided alongside the PILNA 2021 results when available.

In PILNA 2021, the numeracy performance of 20,892 year four students was analysed (10,293 girls; 10,599 boys), the reading performance of 20,738 year four students was analysed (10,221 girls; 10,517 boys), and the writing performance of 20,708 year four students was analysed (10,210 girls; 10,498 boys).

Read and learn more about the performance of year 4 students' performance in each domain here:

- [Numeracy](#)
- [Reading](#)
- [Writing](#)

Across the region, on average, year four students are not meeting minimum expected performance levels in reading but are exceeding minimum expected performance levels in numeracy.

Expected levels of performance have not yet been established for writing but the average writing performance score is increasing.

In addition to not meeting the minimum expected level of performance for reading in 2021, year four students had a lower average performance in reading compared to 2018.

After 2015, year four reading scores increased by a very small margin in 2018 and then decreased by a small margin in 2021. Average reading scores from the 2015 and 2018 PILNA cycles also fall below current minimum performance expectations.

Year four students are not, and have not, been meeting the minimum expected level of reading performance. It cannot be said whether the performance benchmark is too high or whether students are struggling to achieve the benchmark due to other factors.

It is clear, however, that the consistent underperformance of year four students in reading needs to be investigated further.

Year four students exceeded the minimum expected level of performance for numeracy in 2021. However, they had a lower average performance in numeracy compared with 2018. Moreover, despite exceeding the minimum expected performance in numeracy, year four students in PILNA 2021 had a lower average numeracy performance than in any previous PILNA cycle.

More research is needed so that stakeholders of primary education can understand the cause of this drop in performance and how year four might return to previous levels.

Writing performance is harder to understand in context because the writing proficiency scale has not yet been developed. However, the average writing performance over time shows a positive trend. Since 2015, average year four writing performance has increased consistently every PILNA cycle.

Whilst it cannot be said whether students are meeting stakeholder expectations in writing, these performance increases are good news.

2021 performance findings also need to be analysed in the context of the new rotated test booklet design. PILNA 2021 collected more information about lower performing students than previous cycles, therefore, it is possible that performance differences are influenced by an increased accuracy of assessment.

It is difficult to determine a clear performance outcome for year four students, as mixed results were seen across the domains.

- Students are meeting minimum performance expectations in numeracy but show a large decrease in numeracy performance.
- Students are not performing to minimum expectations in reading and showed a small decrease in reading performance in this cycle.
- Students performed above expectation in writing performance, although we do not have a performance benchmark to put this in its proper context.

It is interesting, however, that the two literacy areas, reading and writing, seemed to be less affected than numeracy in the performance decreases since PILNA 2018. Writing performance even increased substantially.

A similar trend was found with the year six students' performance results. In these, numeracy performance decreased substantially but reading and writing performance either stayed the same or showed a small decrease.

Further research would be useful to identify whether the changes in numeracy and literacy performances of these students are related, and whether environmental factors such as school closures affected them.

One very clear conclusion is that year four girls scored higher than year four boys. On average, girls scored higher than boys in every area that PILNA assessed: reading, writing and all areas of numeracy. Further, these differences were frequently sizeable.

It will be important to understand how effectively Pacific education systems are meeting the needs of boys or whether anything can be learnt from girls' higher performance at this stage of schooling.

Year 4 numeracy

- Year four students are, on average, exceeding the minimum expected numeracy performance level.
- There was a decrease in the average numeracy performance in PILNA 2021 for year four students compared with PILNA 2018.
- 67% of year four students met the minimum expected numeracy performance level in 2021.
- The proportion of year four students meeting the minimum expected numeracy performance level decreased in 2021 compared with 2018.
- Year four girls scored higher than year four boys in every numeracy area.
- For full conclusions see the [numeracy](#) section.

Year 4 reading

- Year four students are not, on average, meeting the minimum expected reading performance level.
- Small decreases in reading performance were found in PILNA 2021 compared with PILNA 2018 for year four students, but it is unclear whether these are significant.
- 43% of year four students met the minimum expected reading performance level in 2021.
- Year four girls scored higher than year four boys in average reading performance in 2021.
- A larger proportion of year four girls met the minimum expected reading performance level than did year four boys.
- For full conclusions see the [reading](#) section.

Year 4 writing

- The average writing performance has increased for year four students compared with PILNA 2018.
- Year four girls scored higher than year four boys in average writing performance in PILNA 2021.
- For full conclusions see the [writing](#) section.