

Student attitudes

Attitudes toward school and to certain subjects can shape students' interactions as they progress through their education. For this reason, it was important to collect information about students' attitudes toward learning.

The PILNA programme took an approach that incorporated students' opinions to school overall and to each of the three cognitive domains covered by PILNA: reading, writing and numeracy.

Students were provided with a list of statements for each (such as "I enjoy going to school") and asked to rate how much they agreed with each statement. Students could respond with 'Agree a lot', 'Agree', 'Disagree', or 'Disagree a lot'.

The statements covered:

- whether students enjoyed the activity;
- whether students did the activity in their own time;
- whether students thought it was important to be good at the activity;
- whether students found the activity easy; and
- whether students thought they did well in the activity.

Additionally, students were asked whether they thought it was important to go to school, if they felt safe at school, and if they felt like they belonged at school.

Student attitudes to subjects and school

Most students in the region, both year four and year six, reported agreement with all the attitude statements ('Agree a lot' or 'Agree') about the cognitive domains and school. This shows overall positive attitudes towards reading, writing, mathematics and school.

On average, more than 90% of students in the region reported that they enjoyed going to school (Year four, 92%; Year six, 93%) and felt that it was important to do so (Year four, 91%; Year six, 93%). Additionally, more than four out of five students reported that they felt safe at school (Year four, 86%; Year six, 88%) and safe travelling to school (Year four, 85%; Year six, 86%). Most year four and year six students from PILNA 2021 enjoy schooling, value schooling, and feel safe at school and travelling to school.

When it came to literacy, about nine out of ten students reported that they enjoyed reading (Year four, 89%; Year six, 90%) and writing (Year four, 89%; Year six, 90%). About four out of five students reported that they found reading easy (Year four, 80%; Year six, 83%) and found writing easy (Year four, 81%; Year six, 84%). Similar levels of agreement were seen between year four and year six students on all questions related to reading and writing.













































There was, however, a noticeable difference in agreement for questions related to mathematics. At the year four level, 73% of students agreed that they found mathematics easy and 79% agreed that they did well in mathematics. At the year six level, 73% of students agreed that they found mathematics easy and 75% agreed that they did well in mathematics. These values are lower than the results for reading and writing for both year levels.

Interestingly, students at both year levels still agreed in similar proportions to reading and writing that mathematics was important (Year four, 86%; Year six, 87%) and that they enjoyed mathematics (Year four, 88%; Year six, 84%). The exception was that slightly fewer year six students reported enjoying mathematics compared to reading and writing (mathematics, 84%; reading, 90%; writing, 90%).

The full breakdown of these results can be seen in Table 10.

Table RCST#10

Percentage of students agreeing with statements reading, writing, mathematics and school

Statement	Year 4	Year 6
Reading		
Enjoy reading	 89% (0.4)	 90% (0.4)
Read in my own time	 82% (0.6)	 83% (0.5)
Think it is important to be a good reader	 86% (0.5)	 89% (0.4)
Find reading easy	 80% (0.6)	 83% (0.6)
Do well in reading	 80% (0.6)	 81% (0.6)
Writing		
Enjoy writing	 89% (0.4)	 90% (0.4)
Do writing in my own time	 81% (0.6)	 80% (0.6)
Think it is important to be a good writer	 86% (0.5)	 88% (0.4)
Find writing easy	 81% (0.7)	 84% (0.5)
Do well in writing	 81% (0.6)	 82% (0.5)
Mathematics		
Enjoy doing mathematics	 88% (0.4)	 84% (0.4)
Do mathematics in my own time	 79% (0.6)	 75% (0.6)
Think it is important to be good at mathematics	 86% (0.5)	 87% (0.5)
Find mathematics easy	 77% (0.7)	 73% (0.7)
Do well in mathematics	 79% (0.6)	 75% (0.7)
Schooling		
Enjoy going to school	 92% (0.3)	 93% (0.3)
Think it is important to go to school	 91% (0.4)	 93% (0.3)
Think it is important to do well in school	 89% (0.5)	 91% (0.4)
Find school easy	 82% (0.6)	 84% (0.6)
Feel like I belong at this school	 87% (0.5)	 88% (0.5)
Feel safe at the school	 86% (0.5)	 88% (0.5)
Feel safe travelling to school	 85% (0.5)	 86% (0.5)

() Standard errors appear in parentheses.

Student attitudes and student performance

Using the results above, regional scales for student attitudes on school, reading, writing, and numeracy were established. Higher scores on the scales indicated more positive attitudes to these areas. The scales were then compared to student performance in reading and numeracy.

It should be noted that comparisons were not made to writing performance because the proficiency scale for writing performance has not yet been established.

Comparisons to student performance were made between the average attitudes of students who were at or above expected levels of performance and students who were below these levels of performance.

The analysis showed that, across both year levels, students who performed at or above the expected proficiency level in reading and numeracy scored higher on the attitude scales for reading, numeracy and school. This means that they tended to have positive attitudes towards reading, mathematics and school.

Year four and year six students who performed at or above the expected level in numeracy had higher attitude scores on average (Year four, 200; Year six, 192) than students in the same year groups who did not meet expected numeracy performance (Year four, 197; Year six, 189).

Interestingly, year six students who met the expected level of numeracy performance had lower average attitude scores (192) than year four students who met the expected numeracy performance (200). Year six students who did not meet the expected numeracy performance also had lower average attitude scores (189) than year four students who did not meet the expected numeracy performance (197). This indicates that year six students had lower attitude scores to mathematics than year fours in both performance categories. These results are presented in Table 12.

Figure LMN#3: PILNA Scale: Student attitudes to numeracy

Average scores of students on attitude towards mathematics scale by year level and proficiency

The PILNA scale for students attitudes to numeracy has an average of 200 and a standard deviation of 40. Most scores are expected to be within 40 points of 200 (160-240). It was formed from the five questions that students were asked in each area.

Numeracy



- Scale score for students below expected proficiency level
- Scale score for students at or above expected proficiency level
- Statistically significant correlation ($p < 0.05$)
- () Standard errors appear in parentheses

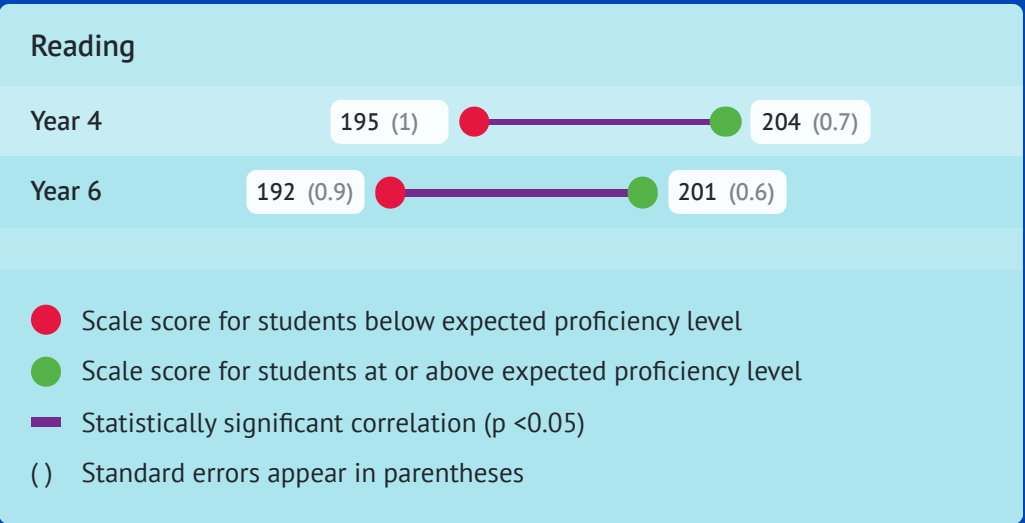
The differences in attitudes were greater between the performance levels for reading than for numeracy. Year four and year six students who performed at or above the expected level in reading had higher attitude scores on average (Year four, 204; Year six, 201) than students in the same year groups who did not meet expected reading performance (Year four, 195; Year six, 192).

The differences between year four attitude scores and year six attitude scores were smaller than for numeracy. These comparisons are shown in Table 11.

Figure LMN#5: PILNA Scale: Student attitudes to reading

Average scores of students on attitude towards reading scale by year level and proficiency

The PILNA scale for student attitudes to reading has an average of 200 and a standard deviation of 40. Most scores are expected to be within 40 points of 200 (160-240). It was formed from the five questions that students were asked in each area.



Comparisons were also made between student performance and attitudes to school in general. Across both year four and year six levels, students who were performing at or above the expected level had higher attitude scores to school in general. This was true for students performing at expected levels in numeracy and for students performing at expected levels in reading.

Table 13 shows these comparisons.

Figure LMN#6: PILNA Scale: Student attitudes to schooling

Average scores of students on attitude towards schooling scale by year level and proficiency

The PILNA scale for student attitudes to schooling has an average of 200 and a standard deviation of 40. Most scores are expected to be within 40 points of 200 (160-240). It was formed from the seven questions students were asked in this area.

Numeracy

Year 4 191 (1.7) 199 (0.8)

Year 6 186 (1.4) 199 (0.7)

Reading

Year 4 192 (1.3) 202 (0.7)

Year 6 189 (1.2) 202 (0.7)

- Scale score for students below expected proficiency level
- Scale score for students at or above expected proficiency level
- Statistically significant correlation ($p < 0.05$)
- () Standard errors appear in parentheses

What does this mean?

The findings from this PILNA cycle show that a high proportion of students in both year levels are enjoying reading, writing, and mathematics and identify them as being important. However, when it comes to ratings about finding each subject easy or rating themselves as doing well in each subject, one area falls behind: numeracy. Numeracy ratings in these areas for both year levels were noticeably lower than for reading and writing. This may mean that, while students are still enjoying mathematics at these year levels, a larger proportion are challenged by the subject than are challenged by reading and writing. This may be an area that requires more attention by educators.

When comparing student attitude scores to performance, one thing was clear; students who met the expected performance in a subject area had higher attitude scores for the subject and for school in general. This suggests an association between student attitudes to a subject and their performance in that subject. Importantly, this association is not clear and causality cannot be determined. For example, do positive attitudes to reading make someone more likely to be a better reader or is it those who are already good at reading who develop positive attitudes to reading because it's easier for them?