Language

Language is the one of the most important tools we use to learn. While English is a common language of instruction in Pacific schools, there are hundreds of Pacific languages, and the language students use at home is not always the language they use at school. Similarly, the language that students took the PILNA assessments in may not have been the language most familiar to them.

Taking assessments in a language that is not a student's most familiar language may affect their performance. This is important to consider, as the PILNA assessments aim to assess student performance independently from any one language – literacy and numeracy can be demonstrated using any Pacific language. Therefore, the PILNA programme takes into account the language students used to complete their assessments relative to the languages they are most familiar with.

Students were asked about the language they mostly used to converse with family, friends, teachers, and in other settings. This was recorded alongside the language the student used to sit the PILNA assessments. With this information, a regional scale was formed to describe how much a student used the language they completed the PILNA assessments in.

> *The PILNA language scale has an average of 200 and a standard deviation of 40. Most scores are expected to be within 40 points of 200 (160–240). The scale was formed from statistical analysis of the answers to six out of ten questions about students' language use.*

Higher scores on this language scale indicate that the student uses the language that they completed the PILNA assessment in for conversing across a greater range of settings. Lower scores indicate that the student uses the language they completed the PILNA in for conversing across fewer settings.

This scale allowed for comparisons between student performance and the number of settings the students use the language they completed the PILNA assessments in. Figure STF1.1 shows differences in average language scale scores by year level, domain (numeracy and reading), and by meeting or not meeting expected (benchmarked) performance in each domain for students in Tonga. Note that comparisons to the writing domain are unavailable as the proficiency scale for writing (benchmarks) has not yet been established.

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Figure STF1.1: PILNA Language Scale

Average scores of students on language scale by year level and proficiency, Tonga, PILNA 2021

The PILNA language scale has an average of 200 and a standard deviation of 40. Most scores are expected to be within 40 points of 200 (160–240). The scale was formed from statistical analysis of the answers to six out of ten questions about students' language use.

Numeracy

Year 4   216 (2.7) 🔴——🟢 233 (2.8)

Year 6   157 (2.7) 🟢🔴 159 (2.4)

Reading

Year 4   224 (2.5) 🔴—🟢 235 (3.4)

Year 6   152 (1.3) 🔴——🟢 169 (5.3)

🔴 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

Language and numeracy performance

When looking at language scale scores by numeracy performance, the results differ between year levels. There was no difference between the average language scale scores for year six students who met expected levels of numeracy performance and the year six students who did not. There was a slight difference, however, for year four students.

Year four students who met the expected level of numeracy performance had slightly higher average language scale scores (233) than year four students who did not (216). It appears that year four students who met the expected level of numeracy performance used the language they completed PILNA in more commonly to converse.

Language and reading performance

For language scores by reading performance, both year levels show similar differences. Year four students who met the expected level of reading performance had higher average language scores (235) than year four students who did not (224), and year six students who met the expected level had higher average language scores (169) than year six students who did not (152).

For both year four and year six students, those who met expected levels of performance in reading used the language they completed PILNA in to converse in more settings than those who did not.

What does this mean?

Interestingly, but perhaps intuitively, students who performed better in reading tended to use the language they were assessed with in more settings. This suggests that using a language in everyday conversation may improve students' reading ability.

The comparisons for numeracy were less clear. There were no differences in language usage between year six students who met expected numeracy performance levels and those who did not. Differences were found, however, for year four students. It may be that the language component of mathematics tasks is more likely to present a barrier for younger students.