

# Conclusions for numeracy performance

## Minimum proficiency levels

The PILNA 2021 numeracy results for Papua New Guinea show that, at the grade three level, 73% of students met or exceeded the minimum expected proficiency level (L3–L8), which is 6% higher than the region (67%). In grade five, 77% of students are meeting or exceeding the minimum expected proficiency level (L5–L8) which is higher than the region by 5%.

## Gender

Equal proportion of girls and boys at grade three and grade five performed at or above the expected minimum proficiency level. At grade three, 74% girls and 73% of boys did so and at grade five, 77% girls and the same for boys did so. Mean performance shows that girls' and boys' performance in the overall numeracy domain and across all four strands were consistent at both year levels.

## School authority

The grade three and grade five students in non-government and government schools showed a consistent performance with little variation in the overall numeracy domain and across all four strands. The largest difference was in the 'Data' strand in grade three and the 'Number' strand in grade five.

## School location

The grade three and grade five students in non-urban and urban schools showed a consistent performance with little variation in the overall numeracy domain and across all four strands. The largest difference was in the 'Data' strand in grade three and the 'number' strand in grade five.

## Coding

The coding data for numeracy shows that the grade three and grade five students were persistent in attempting the questions, with a low proportion of students leaving questions blank. The coding data shows that both grade three and grade five students struggled with questions involving fractions, place values, comparing numbers, finding time difference, conversions of measuring units and calculating chance and probability. The biggest struggle was with solving problems, where students need to interpret and conceptualise the information given to arrive at the expected response

## Trend performance in grade three and grade five

The proportion of grade three students who performed at or above the expected proficiency levels decreased between 2018 (86%) and 2021 (73%). The grade five performance increased between 2015 (51%) and 2018 (84%) and decreased in 2021

(77%) but is still above regional levels.

The mean scores show that there has been a consistent performance in grade three and grade five, where students were still performing above the expected minimum proficiency scale. In grade three their performance was at level 5 in 2018 and level 4 in 2021, both above the minimum expected level (level 3). In grade five, student performance was at level 4 in 2015, which is below the minimum expected proficiency level (level 5), but it was at level 6 in 2018 and 2021, both above the expected minimum proficiency level.