

Teacher confidence in teaching

Teachers were asked two sets of questions about their confidence in teaching: one set for literacy topics and the other for numeracy topics. The questions were phrased as: 'How do you find teaching the following aspects of literacy/numeracy?' Their response options were limited to a four-point scale: 'Very difficult', 'Difficult', 'Easy', and 'Very easy'.

For reporting purposes, teachers who responded with 'Easy' or 'Very easy' were considered to demonstrate confidence in teaching a particular topic.

Table TT2.7 shows the percentage of students in Federated States of Micronesia whose teachers expressed confidence in teaching literacy topics.

Overall, the majority of grade seven students had teachers who were confident in teaching literacy topics. The proportions of grade seven students with such teachers ranged from 64% to 76%. For grade five students, the findings were more diverse, with the proportions of teachers confident in teaching literacy topics ranging from 43% to 77%.


The areas with the highest proportions of students having teachers who expressed confidence were 'Vocabulary' (grade five, 77%; grade seven, 74%), 'Phonemic awareness' (grade five, 68%; grade seven, 76%), and 'Letter sound correspondence' (grade five, 72%; grade seven, 76%).

Across both year levels, areas where a lower proportion of students had teachers who expressed confidence were in the writing areas: 'Quality of ideas' (grade five, 43%; grade seven, 64%), and 'Organisation and structure' (grade five, 48%; grade seven 67%).

In all strands except vocabulary, more grade seven students on average reported having teachers who felt confident in teaching literacy than grade five students. Grade seven students were more likely than grade five students to have teachers who expressed confidence in teaching literacy.

Table TT2.7

Percentage of students whose teacher expressed confidence in teaching literacy

Subject	2018	Difference	2021
Grade 5			
Vocabulary	 67% (7.4)		 77% (7.1)
Grammar and syntax	 63% (7.6)		 58% (5.5)
Spelling and punctuation	 68% (7.6)		 68% (8.6)
Quality of ideas (writing)	 52% (7.8)		 43% (5.0)
Organisation and structure (writing)	 58% (8.1)		 48% (6.0)
Phonemic awareness	 72% (7.0)		 67% (4.8)
Letter sound correspondence	 73% (6.8)		 72% (4.5)
Reading comprehension	 56% (7.3)		 66% (5.9)
Oral language (speaking and listening)	 64% (7.2)		 65% (5.5)
Grade 7			
Vocabulary	 79% (5.9)		 74% (5.9)
Grammar and syntax	 64% (6.8)		 68% (7.3)
Spelling and punctuation	 80% (5.3)		 76% (6.4)
Quality of ideas (writing)	 41% (6.9)		 64% (5.4)
Organisation and structure (writing)	 44% (6.5)		 67% (5.4)
Phonemic awareness	 69% (7.2)		 70% (6.4)
Letter sound correspondence	 77% (7.5)		 76% (6.2)
Reading comprehension	 53% (6.4)		 74% (5.7)
Oral language (speaking and listening)	 72% (6.7)		 74% (5.6)

() Standard errors appear in parentheses.

The same questions were asked of teachers in the 2018 PILNA cycle and results from both the 2018 and 2021 cycles are presented here for comparison. Table 7.21 shows the differences in the percentages of students who had a teacher confident in teaching the various literacy areas between 2018 and 2021 PILNA cycles.

In 2021, more grade five students had teachers who expressed confidence in teaching vocabulary and reading comprehension than in 2018. Conversely, fewer grade five students had teachers who expressed confidence in teaching quality of ideas, and organisation and structure. For grade seven students, three areas stand out: 'Quality of ideas', 'Organisation and structure', and 'Reading comprehension'. For each of these three areas, 20% more students had teachers who expressed confidence in teaching them than in 2018. The remainder of the literacy areas for each grade level were broadly comparable between 2018 and 2021.

A regional scale focused on measuring teachers' confidence in teaching literacy, was established, based on teachers' responses. Higher scores on this scale indicate higher levels of confidence in teaching literacy. The literacy teaching confidence scores were analysed against teacher demographics (gender, age, teaching experience, and qualification level). The significant findings are listed below.

- Female teachers were significantly more confident in teaching literacy than male teachers.
- Teachers who were in the younger age range (20–35 years old) were more confident in teaching literacy than teachers in the older age range (over 35 years old).

The PILNA scale for teachers' confidence in teaching literacy 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 all nine questions that teachers were asked about their confidence in teaching this

Table TT2.8 shows the percentage of students whose teachers expressed confidence in teaching numeracy topics.















Most students in both year levels had teachers who were confident in teaching numeracy topics. In both year levels, the proportion of students with confident teachers ranged between 57% and 91%, a slightly higher range than for literacy topics.

Across both year levels, the topics where a lower proportion of students had teachers who expressed confidence were 'Geometry' (grade five, 57%; grade seven, 61%) and 'Data and chance' (grade five, 62%; grade seven, 62%).

Topics with the highest proportions of students whose teachers expressed confidence were: 'Place value' (grade five, 91%; grade seven, 87%), 'Numbers and patterns' (grade five, 89%; grade seven, 83%), and 'Operations' (grade five, 88%; grade seven, 86%).

Table TT2.8

Percentage of students whose teachers express confidence in teaching numeracy in 2021

Subjects	Grade 5	Grade 7
Number and patterns	 89% (4.5)	 83% (5.1)
Place value	 91% (3.3)	 87% (4.2)
Fractions and percentage	 80% (5.0)	 73% (6.0)
Operations	 88% (4.5)	 86% (4.0)
Measurement	 60% (6.0)	 73% (6.0)
Geometry	 57% (5.0)	 61% (5.1)
Data and chance	 62% (6.7)	 62% (5.7)











































() Standard errors appear in parentheses.

The same questions were asked of teachers in the 2018 PILNA cycle and results from both the 2018 and 2021 cycles are presented for comparison. Table TT2.9 shows the differences in the percentages of students who had a teacher confident in teaching the various numeracy areas between 2018 and 2021 PILNA cycles.

More grade five students had teachers who expressed confidence in all numeracy areas in 2021 than in 2018. A similar proportion of grade seven students had teachers who expressed confidence in the various numeracy areas in 2021 as in 2018. The exceptions were 'Fractions and percentages', where slightly fewer students had teachers who were confident, and 'Geometry' and 'Data and chance', where more students had teachers who were confident than in 2018.

Table TT2.9

Percentage of students whose teachers express confidence in teaching numeracy in 2018 and 2021

Subject	2018	Difference	2021
Grade 5			
Number and patterns	 85% (6.8)		 89% (4.5)
Place value	 84% (6.8)		 91% (3.3)
Fractions and percentage	 70% (5.7)		 80% (5.0)
Operations	 85% (4.2)		 88% (4.5)
Measurement	 51% (7.7)		 60% (6.0)
Geometry	 50% (7.9)		 57% (5.0)
Data and chance	 50% (7.2)		 62% (6.7)
Grade 7			
Number and patterns	 83% (5.6)		 83% (5.1)
Place value	 88% (4.5)		 87% (4.2)
Fractions and percentage	 78% (6.3)		 73% (6.0)
Operations	 88% (4.2)		 86% (4.0)
Measurement	 69% (6.1)		 73% (6.0)
Geometry	 56% (6.4)		 61% (5.1)
Data and chance	 48% (7.3)		 62% (5.7)

() Standard errors appear in parentheses.

A regional scale with nine items focused on measuring teachers' confidence in teaching numeracy was established, based on teachers' responses. Higher scores on this scale indicate higher levels of confidence. As with literacy, the numeracy teaching confidence scores were compared to teachers' demographic groups (gender, age, teaching experience, highest qualification). There were no gender differences for numeracy teaching confidence or for the level of experience that teachers had. However, significant differences were found.

- Teachers who had qualifications less than degree level were more confident in teaching numeracy than teachers with a degree level or higher qualification.
- Teachers who were in the younger age range (20–35 years old) were more confident in teaching numeracy than teachers in the older age range (over 35 years old).

The PILNA scale for teachers' confidence in teaching 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). The scale was formed by statistical analysis of the answers to six out of seven questions teachers were asked about their confidence in teaching this area.

A high proportion of students in Federated States of Micronesia have teachers who are confident in teaching literacy and numeracy. The proportion of students who have confident teachers was generally higher across the numeracy domain than the literacy domain.

In literacy, more students have confident teachers in areas that are structured or rule based, such as vocabulary, phonemic awareness, and letter sound correspondence. Fewer students have confident teachers in areas that require more subjective or complex teaching and assessment, such as quality of ideas and organisation and structure in writing.

Differences were noted with the comparisons for teacher demographic factors. Firstly, teachers with degree level or higher qualifications were more confident in teaching literacy and numeracy. Female teachers were more confident in teaching literacy than male teachers, although no differences were found between female and male teachers in numeracy. Younger teachers were more confident in teaching both literacy and numeracy. The reasons for this are not clear. It is possible that these differences could be explained by changes to pre-service teacher education or perhaps these groups have an inflated sense of ability that is not necessarily reflective of teacher quality.