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## Sampling

#### The PILNA sampling framework

PILNA uses a sampling design that accommodates regional complexities.

These include the differences in small to large education systems, geographically distributed and hard-to-access schools, and hundreds of spoken languages and dialects.

It draws on best practice sampling designs from other international large-scale surveys, such as the *Programme for international student assessment and Trends in international mathematics and science study.* 

The PILNA sampling framework is designed to obtain accurate estimates of student performance across the participating countries. It has the following objectives:

- to support the accurate assessment and monitoring of learning outcomes of Pacific Island children using world-class materials and good quality, standardised procedures;
- to enable comparisons across similarly defined populations from other parts of the region, as well as to make comparisons over time; and
- to support the development of a body of expertise and experience in conducting high quality survey work that can inform other national initiatives.

To meet these objectives, certain standards, such as sample size and the extent of sampling exclusions, are agreed upon between EQAP and participating countries before the administration.

PILNA has two populations in the Pacific that it draws samples from: year four students and year six students. The definitions for these populations are given below.

#### Year four student population

Counting from the first year of International Standard Classification of Education (ISCED) level one, year four students are those who have completed approximately four years of formal schooling.

For most Pacific countries, the target year is year four (towards the end of the fourth grade of schooling). For Northern Pacific countries, which have a different school year, the target year is grade five (at the beginning of the fifth grade of schooling). In Papua New Guinea, the target year is grade three (towards the end of four years of formal schooling).

### Year six student population





Counting from the first year of ISCED level one, year six students are those who have completed approximately six years of formal schooling.

For most Pacific countries, the target year is year six (towards the end of the sixth year of schooling). For Northern Pacific countries, the target year is grade seven (at the beginning of the seventh grade of schooling). In Papua New Guinea, the equivalent target year is grade five (towards the end of six years of formal schooling).

### Sampling design

These populations are accessed through schools in the region. PILNA is administered in schools that are asked to participate, based on certain criteria.

The expected response rate for PILNA is more than 85% of sampled schools. If the response rate is below 85%, a predetermined, systematic use of substitute schools is implemented.

Each school that is initially selected for participation has two substitute schools assigned to it. The exception to this is countries with very few schools.

Schools may be excluded from the sampling, mainly for practical reasons, such as increased survey costs or difficult survey conditions. Examples of school-level exclusions are:

- schools in very remote locations;
- very small schools; and
- international schools (offering a curriculum other than the prescribed national curriculum).

A detailed discussion of the sampling design for PILNA 2021 is presented in the PILNA 2021 Technical Report.





#### Table OPQ#3

# PILNA 2021 numeracy assessment participation

Year 4	Year 6	Country	Total
267	259		
2484	2537		
1208	1065		
2562	2390		
262	197		
29	40		
231	239		
3021	3036		
805	561		
2815	2752		
2023	1859		
33	30		
2337	2359		
207	217		
2602	2243		
20886	19784		

Number of students who participated in the PILNA 2021 numeracy assessment by year level and country.

#### Table OPQ#4

# PILNA 2021 literacy assessment participation

Year 4	Year 6	Country	Total
262	255		
2498	2484		
1190	1072		
2581	2392		
267	206		
31	39		
229	236		
3056	3070		
725	585		
2796	2738		
1948	1808		
33	31		
2426	2382		
207	217		
2611	2234		
20860	19749		

Number of students who participated in the PILNA 2021 literacy (reading and writing) assessment by year level and country.