

## **Progress in International Reading Literacy Study (PIRLS) 2021 Brief Summary**

1. The Progress in International Reading Literacy Study (PIRLS) is a large-scale reading assessment organized by The International Association for the Evaluation of Educational Achievement (IEA). PIRLS provides an objective assessment of the reading comprehension attainment of fourth grade students in countries worldwide, and investigates factors influencing reading literacy across countries and regions.

2. Since 2001, PIRLS has been conducted every five years at the fourth grade, and PIRLS 2021 is the fifth cycle of the study. Hong Kong has participated in all five assessments, namely PIRLS 2001, PIRLS 2006, PIRLS 2011, PIRLS 2016, and PIRLS 2021. Among Asian regions, only Singapore has also participated in all five cycles. PIRLS is both an international comparative study and a longitudinal study.

3. Our research team of the Centre for The Advancement of Chinese Language Education and Research of the University of Hong Kong (CACLER, HKU) was funded by the Quality Education Fund to participate the PIRLS 2001 study in 1999. Since then, the research team has continued to be commissioned by the Education Bureau of the Government of Hong Kong SAR to conduct PIRLS studies, with the aim of investigating the reading achievement of Hong Kong primary four students and comparing them with their peers globally. This facilitates educators, schools, parents, and the public to examine the development of reading attainment of Hong Kong primary students, as well as the factors that influence their development.

4. There were 57 countries and regions participants in PIRLS 2021. Apart from Hong Kong SAR, there were also Macao SAR, Chinese Taipei region and Singapore. Students from Hong Kong SAR, Macao SAR and Chinese Taipei region participated in the assessment in Traditional Chinese, while students from Singapore participated in English.

Data of some items in context questionnaires might not be provided by some countries and regions, in which case the total number of participating countries and regions for the relevant item will be less than 57.

5. Despite the many challenges of conducting a school-based assessment during the COVID-19 pandemic, 37 countries and regions managed to collect data towards the end of students' fourth year of schooling according to the original PIRLS 2021 schedule ("wave 1"), which was October to November 2020 for Southern Hemisphere countries or regions and March to June 2021 for Northern Hemisphere countries. However, some Northern Hemisphere countries or

regions had to delay assessing the cohort of fourth grade students until the beginning of the fifth grade (August to December 2021) (“wave 2”) and some countries or regions assessed their fourth grade students one year later than originally scheduled (October to November 2021 for the Southern Hemisphere and March to June 2022 for the Northern Hemisphere) (“wave 3”) (see Tables 1 to 4).

As PIRLS focuses on the monitoring reading achievement of primary four students, the IEA combines the “wave 1” and “wave 3” of the study and reports the global scores of fourth-grade students. In addition, the IEA also combines all three “waves” and reports additional scores for fourth and fifth-grade students for reference purposes. The reporting of achievement results in Hong Kong follows the IEA's reporting policy, and all student achievement mentioned refers to the scores of primary four students. The report is based on the reports of the “wave 1” and “wave 3” of PIRLS from 43 countries and regions worldwide.

6. The PIRLS assessment employs a two-stage random sample design, with a sample of schools drawn as a first stage and one or more intact classes of students selected from each of the sampled schools as a second stage. The same sampling technique is employed for selecting participating schools in the PIRLS Hong Kong study. Schools are randomly selected based on the number of primary schools in Hong Kong, and one to two classes of students (depending on the number of students in the school) are randomly selected to participate in the reading assessment. In addition to data of reading comprehension, PIRLS 2021 collects and reports an extensive array of information from principals, students themselves, Chinese language teachers, and parents about student reading attitudes, family environment, school environment, and teaching and learning of reading. This helps to investigate the influences of these factors on the Chinese reading achievement of Hong Kong primary students.

7. 144 primary schools with 3,830 Primary 4 students, 3,765 parents, 155 Chinese Language teachers and 144 principals participated in the PIRLS 2021 Hong Kong study. Among the students, 51% were girls and 49% were boys, with an average age of 10.1 years.

8. The assessment in Hong Kong was conducted between April and July 2021 according to the original PIRLS 2021 schedule (i.e. “wave 1” as mentioned in point 5 above). At that time, Hong Kong was in a period between the fourth and fifth waves of the epidemic, and schools resumed face-to-face classes between April and July.

9. The PIRLS reading achievement scale is an overall measure of reading proficiency that includes both reading purposes and processes of comprehension. The participating students were required to complete a reading comprehension a test booklet consisting of two passages

and their items, one passage assessing the reading proficiency for literary experience and the other for acquiring and using information. To assess students' reading proficiency for different processes of comprehension, the test questions were categorized into basic reading processes (retrieval and straightforward inferencing) and advanced reading processes (interpreting, integrating, and evaluating), regardless of the informational or literary texts.

10. The PIRLS achievement scale was established since 2001, and the scale centre point of 500 was located at the mean of the achievement distribution to provide a point of reference for country and region comparisons. Four International Benchmarks were built for representing levels of reading comprehension skills and strategies student reached: the Advanced International Benchmark (625 or above), High International Benchmark (550-625), Intermediate International Benchmark (475-550), and Low International Benchmark (400-475).

11. In the past four assessments of PIRLS, Hong Kong students' overall reading achievement and various indicators influencing reading proficiency have improved. In PIRLS 2001, Hong Kong primary four students scored 528, ranking 14th among 35 participating countries and regions, the same score and ranking as Singapore and Russian Federation. In PIRLS 2006, Hong Kong made a significant leap forward, scoring 564 and ranking second out of 40 countries and regions. In PIRLS 2011, Hong Kong scored 571 and ranked first out of 49 countries and regions, becoming the region with the highest reading achievement for fourth grade students worldwide. In the PIRLS 2016, Hong Kong scored 569 points and ranked third out of 50 countries and regions, consistently ranking among the top three in the world for the past decade (see Table 5).

PIRLS 2021 monitors the development of reading comprehension achievement and relevant factors of primary four students in Hong Kong and globally over the past 20 years, as well as the impact of the COVID-19 pandemic on reading instruction worldwide. The results of PIRLS 2021 in Hong Kong will be released on 17 May, 2023, at 10:00 am at the University of Hong Kong.

Table 1: PIRLS 2021 participating countries and regions and demographic information (in chronological order of data collection)

Waves	Main data collection period	Students' grade	No. of countries or regions	No. of students	(%)	Average age of students
Wave 1: according to original plan	Southern Hemisphere : October-November 2020 Northern Hemisphere : March-June 2021	Fourth grade students at the end of the school year	37	215,279	(67.2)	10.2
Wave 2: delayed assessment (half year)	Northern Hemisphere: August-December 2021	Fourth grade cohort at the beginning of the fifth grade	14	110,891	(28.0)	10.8
Wave 3: assessed one year later	Southern Hemisphere : August-December 2021 Northern Hemisphere : March-July 2022	Fourth grade students at the end of the school year	6	14,992	(4.8)	10.2

Table 2: PIRLS 2021 participating countries and regions in “wave 1” (37 countries and areas conducted the assessments at the end of the fourth grade school year., according to the original plan)

<b>East Asia, Southeast Asia (4)</b>	Chinese Taipei region	<b>Hong Kong SAR</b>	Macao SAR	Singapore				
<b>Oceania (1)</b>	New Zealand							
<b>Middle East, Central Asia (6)</b>	Azerbaijan	Cyprus	Jordan	Oman	Türkiye	Uzbekistan		
<b>Europe (25)</b>	Albania	Austria	Belgium (Flemish)	Belgium (French)	Bulgaria	Czech Republic	Denmark	Finland
	France	Germany	Italy	Kosovo	Malta	Montenegro	Netherlands	North Macedonia
	Norway	Poland	Portugal	Russian Federation	Serbia	Slovak Republic	Slovenia	Spain
	Sweden							
<b>Africa (1)</b>	Egypt							

Remark: country or region are listed in alphabetical order

Table 3: PIRLS 2021 participating countries and regions in “wave 2” (14 countries and areas delayed the assessments half year, assessed fourth grade cohort at the beginning of the fifth grade)

<b>Middle East, Central Asia (5)</b>	Bahrain	Kazakhstan	Qatar	Saudi Arabia	United Arab Emirates		
<b>Europe (7)</b>	Croatia	Georgia	Hungary	Ireland	Latvia	Lithuania	Northern Ireland
<b>Africa (1)</b>	Morocco						
<b>Americas (1)</b>	United States						

Remark: country or region are listed in alphabetical order

Table 4: PIRLS 2021 participating countries and regions in “wave 3” (6 countries and regions delayed the assessments one year later, assessed fourth grade students at the end of the school year)

<b>Oceania (1)</b>	Australia	
<b>Middle East, Central Asia (2)</b>	Iran, Islamic Rep. of	Israel
<b>Europe (1)</b>	England	
<b>Africa (1)</b>	South Africa	
<b>Americas (1)</b>	Brazil	

Remark: country or region are listed in alphabetical order

Table 5: The average reading achievement of Hong Kong students and ranking of previous PIRLS cycles

Cycle	Year	Average reading score of Hong Kong students	Ranking	No. of participating countries or regions
4	2016	569	3	50
3	2011	571	1	49
2	2006	564	2	40
1	2001	528	14	35