Jupiter | PIRLS 2021

October 2023

The Progress in International Reading and Literacy Study (PIRLS), implemented by IEA, is one of the world's foremost data source on reading proficiency. PIRLS provides comparable data on reading trends for Grade 4 students since 2001. PIRLS 2021 is the fifth cycle in the PIRLS assessment, with data collection taking place from April to July 2021. The PIRLS 2021 data is the first release of internationally and temporally comparable learning data since the COVID-19 pandemic's unprecedented school closures, and therefore particularly timely and relevant to inform key education reforms countries can prioritize to accelerate learning. This brief summarizes the main results from PIRLS 2021 for policy-makers.

Overview of the Achievement Results

The country's average PIRLS score in 2021 is 533 and the share of students scoring below the low international benchmark or minimum proficiency (a PIRLS score below 400) is 35 percent.

Trends in average (mean) scores for countries provide an overall direction in which reading levels in countries have developed. The low international benchmark for PIRLS is also relevant for policymakers, as it gives an indication of the share of children who are not able to read a short text with comprehension. The low international benchmark is used by countries to report on SDG indicator 4.1.1b and estimate learning poverty, and thus is a benchmark for the world's efforts to ensure that all children can read by age 10. Overall, reading is a gateway for learning as the child progresses through school— and conversely, an inability to read constrains opportunities for further learning as well as for productivity and health later in life.

Since 2016, the share of students below minimum proficiency increased by 27 percentage points and the average country score increased by 9 PIRLS points (Figure 1 and 2).

Figure 1. Share of students below minimum proficiency over time

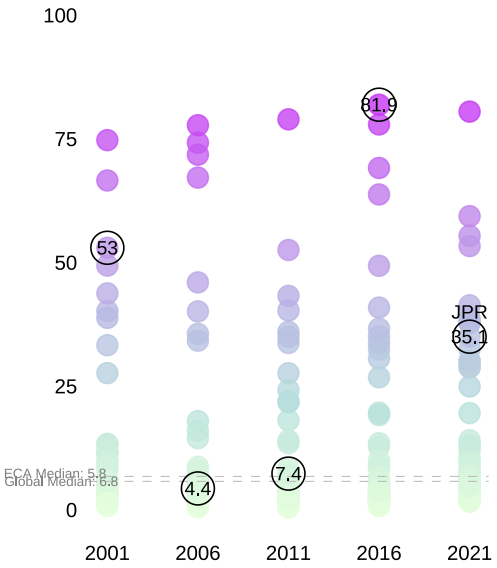
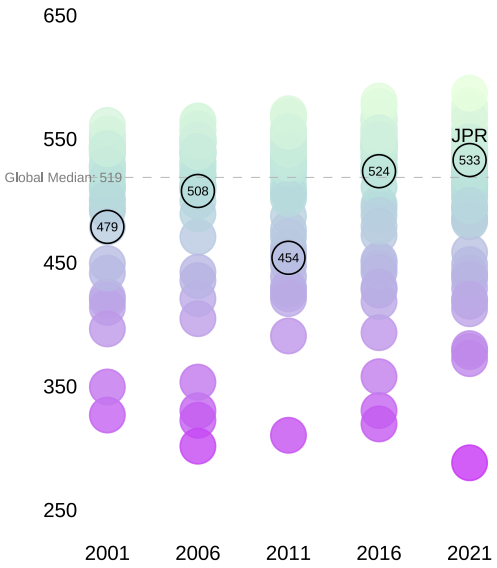


Figure 2. Average (mean) scores over time



Note: Students below minimum proficiency are students who scored below the low international benchmark (400) for PIRLS. Dots represent values of each participating country, colored by their ranking. Dark black circles include values available for the country. The median refers to the country's result that falls on the 50th percentile of the distribution. Both the difference in mean scores (p-value <0.004) and the difference in shares of students below minimum proficiency (p-value <0.005) between the years 2016 and 2021 are statistically significant at the 5% level.

Sampling

200 schools and 4000 students participated in PIRLS 2021, whereas 300 schools and 3550 students were sampled in 2016. All students were assessed at grade 4.

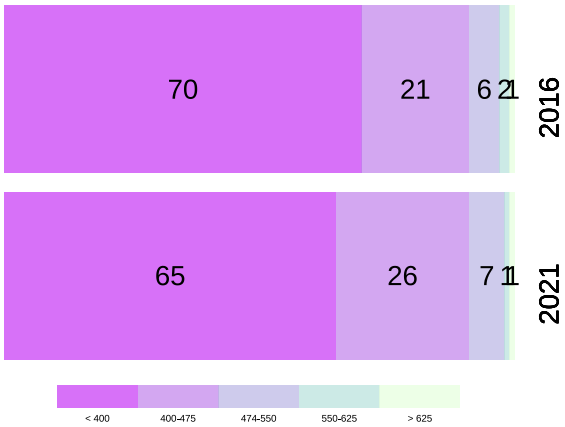
Share of Students at Different Proficiency Levels

PIRLS describes achievement at four international Benchmarks (or proficiency level) along the reading achievement scale: Low or Minimum (400), Intermediate (475), High (550) and Advanced (625).

The share of students who were below minimum proficiency decreased by 5 percentage points,

Disparities in PIRLS score were concentrated within schools. Between school inequality makes up 0 percent of the total inequality, and within school inequality makes up 100 percent. In comparison, the global median for between inequality is 0 percent.

Figure 3. Share of students according to PIRLS proficiency levels



Source: IEA

Share of Students Below Minimum Proficiency Level by Subgroups

Wealth

In 2021, the share of students below minimum proficiency in the poorest quintile surpasses that share in the richest quintile by 12 percentage points (Figure 4).

From 2016 to 2021, there has been a 70 percentage points change in the share of children below minimum proficiency in the richest quintile relative to a change for the poorest quintile of 34 percentage points.

Location

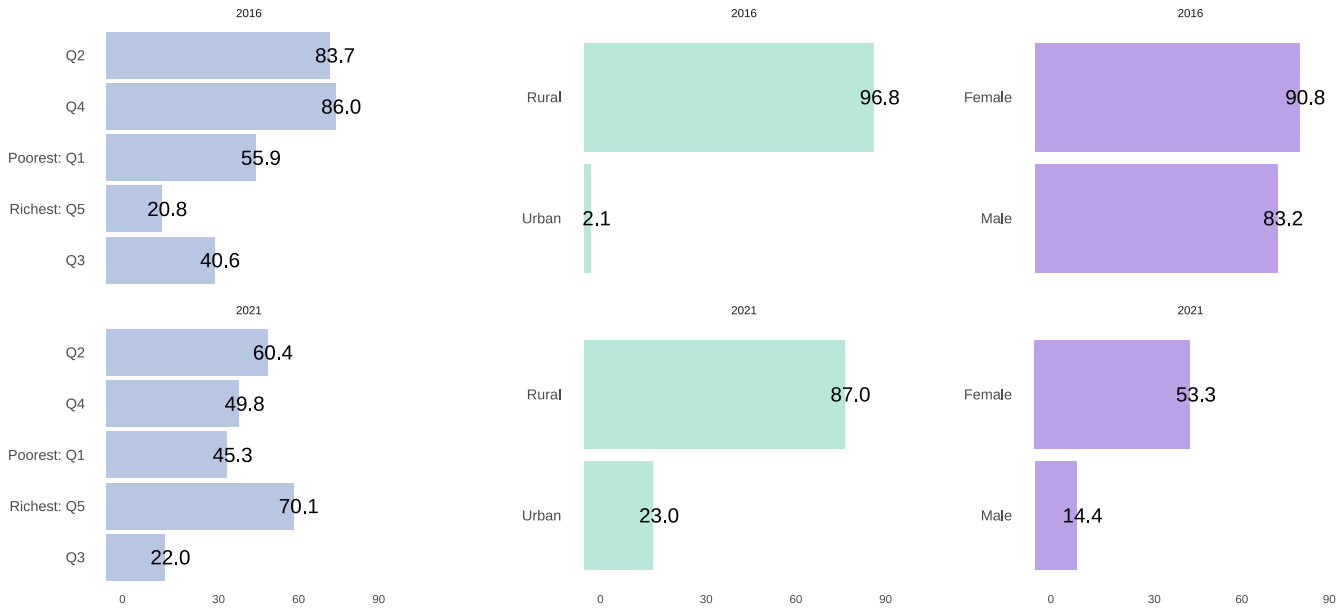
In 2021, the share of students below minimum proficiency in rural schools were higher than in urban schools with the difference being 65 percentage points. 22 percent of students are below minimum proficiency in urban schools compared to 87 percent in rural schools.

The change in the share of students below minimum proficiency from 2016 to 2021 favored urban schools.

Sex

From 2016 to 2021, the share of girls below minimum proficiency increased by 7 percentage points, compared to an increase by 5 percentage points for boys.

Figure 4. Share of students below minimum proficiency by subgroups



Note: Calculations using PIRLS 2021. Wealth quintiles are calculated by the World Bank and differ somewhat from the socio-economic status index created by IEA for PIRLS 2021 (World Bank calculations are used to ensure comparability over time).

Selected Household Factors

41 percent of parents report that the students tested attended an early childhood education program or center.

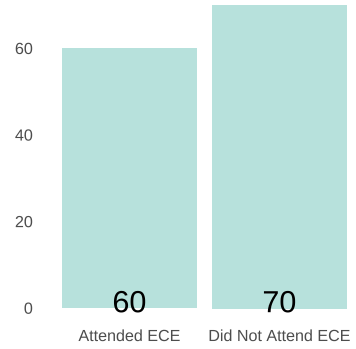
In 2021, the share of these students below minimum proficiency was 84 percent, compared to 57 percent for students who did not attend such programs (Figure 5).

77 percent of students reported having access to the internet, 44 percent to a computer, tablet or e-reader, and 55 percent to a smartphone.

77 percent of parents reported having 10 or less children's books in their home.

80 percent of the students expected their child to attain at least a Bachelor's degree (undergraduate), whereas parents of 14 percent of the parents believe their child will only complete upper-secondary.

Figure 5. Share of students below minimum proficiency by attendance to early childhood education (%)



Note: Calculations Using PIRLS 2021.

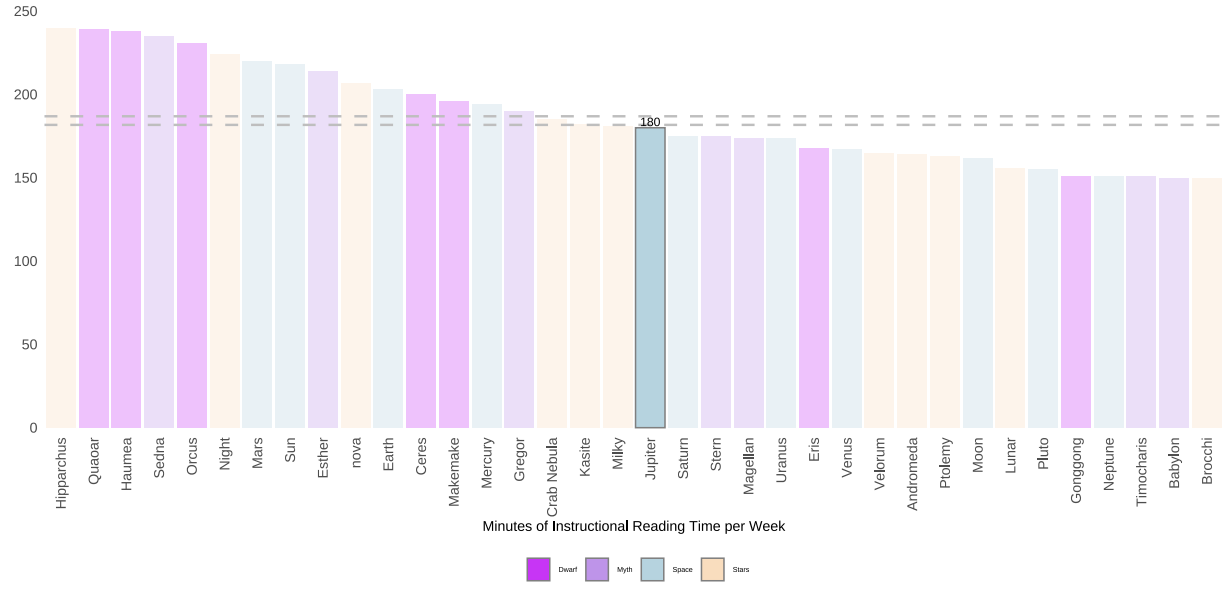
Selected Classroom Factors

On average, teachers of assessed students reported having 22 students enrolled in their class.

28 percent of teachers of assessed students reported having at least a Bachelor's degree (undergraduate). In comparison, the median of students' teachers reporting this is 28 percent.

In 2021, teachers of assessed students reported 180 minutes of instructional reading per week (Figure 6). While some countries have very high reading scores with fewer reported hours of reading instruction in Grade 4, an international rule of thumb for reading instruction is that at least 90 minutes of uninterrupted classroom time is reserved for language instruction and reading per day in the early years, which adds up to 450 minutes per week in a full week of instruction.

Figure 6. Average minutes of instructional reading time per week by country



Note: Calculations Using PIRLS 2021.

Student Well-being

27 percent of girls, 19 percent of boys, and 15 percent total students were bullied at least once a month. In comparison, the median of students who reported experiencing this in PIRLS countries is 29.5 percent.

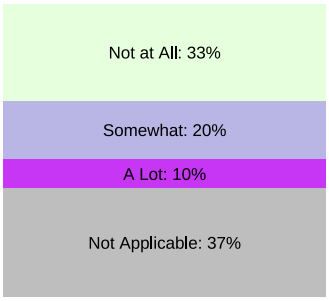
COVID School Closures

Between February 2020 and 2022, schools were partially closed for 120 days of the school year and fully closed for 60 days. Data are from the UNESCO Global Monitoring of School Closures Caused by the COVID-19 Pandemic.

Comparisons between the PIRLS 2016 and 2021 cycles capture changes that may be related to the COVID-19 pandemic or to other changes over that period.

PIRLS 2021 data shows that 1 percent of students stayed at home at some point in 2021. 30 percent of parents thought their child's learning was adversely affected (somewhat or a lot) by the consequences of the pandemic (Figure 7).

Figure 7. Parents' response: Do you think your childs' learning was adversely affected by the pandemic?



Note: Calculations Using PIRLS 2021.

Mitigation Measures

Schools and parents provided measures to students while at home during the pandemic. While the data does not allow us to directly test the effectiveness of these measures, they give an idea of the efforts taken. The most common mitigation measure reported by schools was recommendations for teachers about how to provide online instruction, and the most common measure reported by parents was books. 5 percent of schools reported using all six mitigation measures (Figure 8a). 2 percent of parents reported using all four mitigation measures (Figure 8b).

Figure 8a. School Level mitigation of learning loss

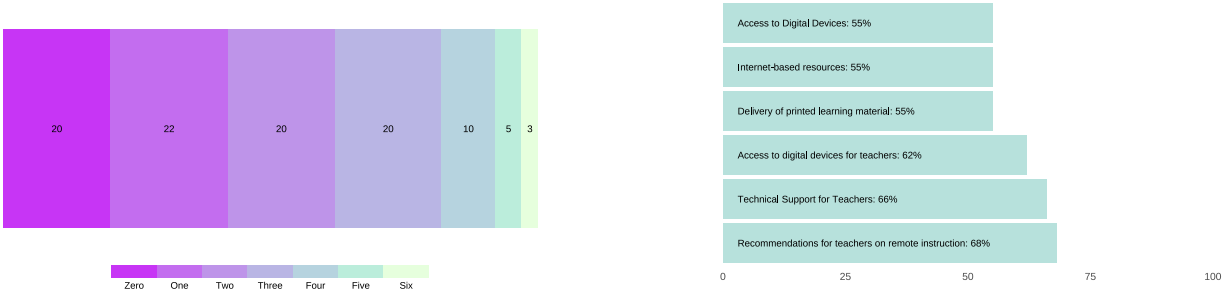
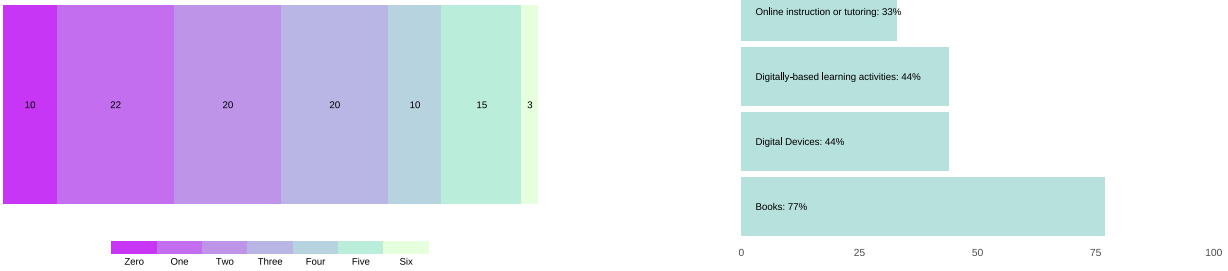


Figure 8b. Parental Level mitigation of learning loss



Note: Schools and parents provided multiple forms of mitigation against learning loss. The left panels shows the share of schools/parents providing zero, one or multiple mitigation measures. The right panels shows the share of schools/parents providing each mitigation measure.

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Participating Countries (Space countries in bold): Albania, Austria, Azerbaijan, Belgium (Flemish), Belgium(French), Bulgaria, Cyprus, Czechia, Denmark, Germany, England, Finland, France, Georgia, Croatia, Hungary, Italy, Ireland, Kazakhstan, Lithuania, Latvia, Montenegro, Northern Ireland, North Macedonia, Netherlands, Norway, Poland, Portugal, Serbia, Spain, Slovak Republic, Slovenia, Sweden, Turkiye, Uzbekistan, Kosovo, Australia, Hong Kong SAR, China, Macao SAR, China, New Zealand, Singapore, Brazil, United Arab Emirates, Bahrain, Egypt, Arab Rep, Iran, Islamic Rep, Israel, Jordan, Morocco, Malta, Oman, Qatar, Saudi Arabia, United States, South Africa