

PIRLS

Executive Summary



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Since its inception in 1959, the International Association for the Evaluation of Educational Achievement (IEA) has conducted a series of internationally comparative studies designed to provide policy makers, educators, researchers, and practitioners with information about educational achievement and learning contexts. The Progress in International Reading Literacy Study (PIRLS) is IEA's newly-developed assessment of students' reading achievement at fourth grade. Thirty-five countries participated in PIRLS 2001. Its success depended on a collaborative effort among the research centers in each country responsible for implementing the steps of the project and the network of international centers responsible for managing the across-country tasks, such as training country representatives in standardized procedures, selecting comparable samples of schools and students, developing instruments, and conducting the various steps required for data processing and analysis.

PIRLS assessed a range of reading comprehension strategies for two major reading purposes – literary and informational. More than half of the questions were in the constructed-response format, requiring students to generate and write their answers. Example passages, questions, and scoring guides can be found in the back pocket of the report and in Appendix C.

Because the home, school, and national context within which students learn to read play such important roles, PIRLS collected extensive information about these influences. The students who participated in PIRLS completed questionnaires about their home and school experiences related to learning to read. Of special interest, their parents and caregivers completed questionnaires about activities used to foster early literacy activities. Also, teachers and school administrators completed questionnaires about instructional practices. System level information was provided by each participating country and published in the PIRLS 2001 Encyclopedia.

All aspects of PIRLS were conducted with concerted attention to quality. Countries met rigorous standards for sampling designed to prevent bias and ensure comparability. Translating the tests and questionnaires involved a detailed iterative review process, and numerous training sessions were held in data-collection and scoring procedures. Prior to analysis, each country's data were subjected to exhaustive checks for consistency and comparability across countries.

Students' Reading Achievement

- Sweden had the highest reading literacy achievement of all the countries participating in PIRLS 2001. The Netherlands, England, and Bulgaria were outperformed only by Sweden. Latvia, Canada, Lithuania, Hungary, the United States, Germany, and Italy also performed better than most of the other countries.
- In all countries, fourth-grade girls had significantly higher reading achievement than boys.
- Sweden and England had the highest average achievement in reading for literary purposes, with Sweden having significantly higher mean achievement than the rest of the other participating countries and England performing significantly better than all the other countries except The Netherlands, the United States, and Bulgaria. Only Sweden outperformed The Netherlands, the United States, and Bulgaria.



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- In reading for informational purposes, Sweden, The Netherlands, and Bulgaria had the highest average achievement. Sweden had significantly higher achievement than the rest of the countries and The Netherlands and Bulgaria performed significantly better than all the other countries except Latvia and England, who were outperformed only by Sweden.

Home Activities Fostering Literacy

- In every country, there was a positive relationship between reading achievement at fourth grade and students having engaged in early literacy activities before starting school (e.g., reading books, telling stories, singing songs, playing with alphabet toys, and playing word games). Parents generally reported a fairly high level of engagement, with England and Scotland reporting the highest levels.
- On average across countries, there was a strong relationship between speaking the language of the PIRLS test at home and performance on the PIRLS test.
- In every country, fourth-grade students from homes with many children's books (more than 100) had higher reading achievement than those from homes with few children's books (10 or less). Internationally, on average, the majority of students (58%) were in homes with more than 25 children's books.
- Across countries, on average, students with the highest reading achievement had parents who spent time reading (more than six hours per week) and their parents had favorable attitudes toward reading.



Students with the highest reading achievement had parents who spent time reading.

Curriculum and School Organization

- In most countries, principals reported that less than half (and in many cases less than one-quarter) of students beginning their schools had early literacy skills (i.e., recognize most of the alphabet, read some words, read sentences, write letters of the alphabet, and write some words). Exceptions were England, Singapore, Slovenia, Canada, France, Sweden, and the United States.
- More than half the students (54%), on average, across countries had parents that reported their child could do early literacy activities (see above) moderately or very well at the time they began school, and only 17 percent had parents reporting they could not do them at all.
- According to principals across the countries, reading was emphasized more than other areas of the curriculum in grades one through four. Almost four-fifths (78%) of students, on average, were in schools where reading received more emphasis than other areas of the curriculum.
- Teachers reported spending as much as nine hours per week, on average, on language instruction in Canada, Colombia, Cyprus, France, Greece, New Zealand, and the United States, and as little as three hours in Macedonia; the average across all countries was seven hours. On average, across countries, 28 percent of fourth-grade students had teachers reporting more than six hours each week specifically on reading instruction.
- Teaching reading as a whole-class activity was the most popular approach internationally, with 38 percent of students, on average, in classes where the teacher always or almost always chose this method.
- Internationally, on average, about half the students (56%) were in classrooms where all students were reading the same materials but at their own speeds, and another one-third (32%) were reading different materials according to their reading level. The remainder were reading the same materials at the same speed, often because they had the same reading level.

- On average, across countries, teachers reported that the most commonly used classroom activities were asking students to identify the main idea and explain or support their understanding of what they had read (used at least weekly with 90% of students).
- Almost two-thirds (63%) of fourth-grade students internationally, on average, were in classes where the teacher reported never having access to a remedial or reading specialist. Twelve percent were in classes where the teacher reported having a remedial or reading specialist always available to deal with students with reading difficulties and 25 percent in classes where such specialists were sometimes available.
- When asked what they usually do when a student begins to fall behind in reading, in almost every country, teachers' most common response was to spend more time working on reading with that student (internationally, for 88% of students on average).

Reading Instruction

- On average, internationally, two-thirds of students had daily reading instruction based on a textbook or reading series. Almost all students (95% or more) had such instruction in Bulgaria, Cyprus, Greece, Hungary, Latvia, the Russian Federation, and the Slovak Republic. Workbooks were used on a daily basis for about one-third of students (32%) and on a weekly basis for nearly half the students (46%).
- Across countries, the instructional approach used for the majority of students (international average 53%) was daily instruction based on a textbook or reading series accompanied by at least weekly exercises in workbooks or worksheets. Three-fourths of students (international average 76%) were given at least two of the following on a monthly basis to supplement their weekly instructional program – children's books, newspapers/magazines, computerized activities, or Internet assignments.

- On average, internationally, using fiction in classrooms is much more widespread than using non-fiction. Teachers reported using fiction for reading instruction at least weekly for 84 percent of students compared to non-fiction for 56 percent of students.
- Both teachers and students agreed that independent silent reading was a frequent classroom activity, particularly for students with higher reading achievement. On average, internationally, two-thirds of fourth-grade students (66%) reported reading silently on their own daily, and a further 27 percent at least weekly.
- Across countries, on average, teachers reported asking the majority of fourth-grade students to read aloud to the whole class on a daily basis (56%), as well as assigning some reading aloud in small groups or pairs. Students reported reading aloud themselves somewhat less frequently – about one-fourth (23%) daily and one-third (36%) weekly. Interestingly, students with the highest reading achievement reported frequent independent reading (daily) and less frequent reading aloud (monthly). Presumably, teachers were able to allow the better readers more time on their own.
- In many countries, oral questioning by the teacher was an everyday activity and in all countries it happened with the majority of fourth-grade students at least weekly. Students also reported frequently answering questions in writing about what they had read in class.
- Almost all fourth-grade students (international average 85%) attended schools with a school library, and the majority (65%) with large holdings – more than 500 books. Many students also had access to classroom libraries. On average, internationally, 57 percent of students were in schools where most or all classrooms had classroom libraries. These were most often reported in Cyprus, Hong Kong, New Zealand, and Scotland.
- Despite the widespread availability of classroom libraries, teachers reported using them relatively infrequently. On average, across countries, the majority of fourth-grade students (62%) were given time to use the classroom library only weekly or less often.

- Computer availability for reading instruction varied dramatically from country to country. Whereas almost all students (more than 90%) in Canada, England, Iceland, The Netherlands, New Zealand, Scotland, Singapore, Sweden, and the United States had computers available in the classroom or elsewhere in the school, the large majority (more than 80%) had no access to computers in Belize, Bulgaria, Colombia, Greece, Iran, Kuwait, Macedonia, Moldova, the Russian Federation, the Slovak Republic, and Turkey.
- Internationally, teachers relied most on their own professional opinion when monitoring student progress. On average, 70 percent of students were in classes where teachers reported placing major emphasis on professional opinion, compared to 55 percent where the emphasis was on classroom tests, 39 percent on diagnostic tests, 23 percent on national or regional examinations, and 16 percent on standardized tests.

School Contexts

- On average, internationally, average reading achievement was considerably higher – 40 scale-score points – for students in schools with few students from disadvantaged homes (less than 10%) than with the majority from disadvantaged homes. According to principals, one-third of the students attended schools with relatively few disadvantaged students but one-fourth (23%) were in schools where more than 50 percent of the students came from economically disadvantaged homes.
- At least half of the fourth-grade students in Canada, France, Hong Kong, Iceland, Iran, Israel, Kuwait, The Netherlands, New Zealand, Singapore, and the United States, were in schools emphasizing communication with parents.
- Absenteeism does not appear to be prevalent among fourth graders. On average, internationally, almost 80 percent of students attended schools where principals reported absenteeism was not a problem or only a minor one.

- Internationally, on average, about one-third of students (36%) attended schools perceived by principals to have high morale, high academic expectations, regard for school property, and a high level of parental support, and these students had higher reading achievement than those in less positive school climates.
- Across countries, on average, 43 percent of students attended schools reporting adequate availability of resources, and only 18 percent were in schools affected by the lack of availability. Students in schools reporting no shortage or inadequacy of resources generally had higher reading achievement than those affected “a lot” by shortages.

Students' Attitudes and Reading Habits

- Within all countries, students' attitudes toward reading were generally positive, and students with the most positive attitudes had the highest reading achievement. Internationally, about half the students, on average, agreed with each of five statements about enjoying reading and appreciating books. More girls than boys had positive attitudes in all countries.
- On average, internationally, 63 percent of fourth-grade students reported reading stories or novels at least once a week. More girls (70%) than boys (55%) so reported. Similarly, 61 percent internationally, on average, reported reading for information at least weekly. However, comparable percentages of girls (62%) and boys (59%) read weekly for information.

