

STUDENTS' REPORTS OF BOOKS AT HOME

Key Findings: Canada, England, France, Germany, Italy, Russian Federation, Scotland, United States

In the United States and all the other countries presented, fourth-graders who reported having 0-10 books in the home had lower average reading achievement than did fourth-graders who reported having more books.

The Progress in International Reading Literacy Study (PIRLS) 2001 was an assessment of the reading literacy of fourth-graders in 35 countries. In addition to reading achievement data, PIRLS 2001 also collected information pertaining to background factors that are likely to be associated with students' reading performance. Linkages between socioeconomic status (SES) and student achievement have been well documented for the United States and other nations (e.g., Mullis et al. 2000⁵). However, it is not clear that fourth-graders are able to report family income accurately, or whether income adequately captures all resources available to a family. Hence, PIRLS 2001 did not ask students to report family income, but rather, asked students to indicate their possession of or access to a number of items that can be related to a family's economic circumstances, including cars, books, dictionaries, computers, calculators, and the like. This indicator presents information about students' access to books at home, which is often used as a proxy for SES (e.g., Williams et al. 2000⁶), and explores the extent to which reading achievement varies by number of books at home.

⁵Mullis, I.V.S., Martin, M.O., Gonzalez, E.J., Gregory, K.D., Garden, R.A., O'Connor, K.M., Chrostowski, S.J., and Smith, T.A. (2000). *TIMSS 1999 international mathematics report: Findings from IEA's repeat of the Third International Mathematics and Science Study at the eighth grade*. Chestnut Hill, MA: Boston College.

⁶Williams, T., Levine, D., Jocelyn, L., Butler, P., Heid, C. and Haynes, J. (2000). *Mathematics and science in the eighth grade: Findings from the Third International Mathematics and Science Study*, NCES 2000-014. Washington, DC: National Center for Education Statistics.

Definitions and Methodology

Fourth-graders were asked to identify the number of books at their home, not including magazines, newspapers, and school books. Fourth-graders' reports of the number of books in the

Twenty-one percent of U.S. fourth-graders reported having more than 200 books in their home, while 9 percent of U.S. fourth-graders reported 0–10 books (table 6). In comparison to the United States, a smaller percentage of fourth-graders reported having more than 200 books in their home in Germany (16 percent), Italy (13 percent) and the Russian Federation (17 percent). A larger percentage of fourth-graders in Italy (14 percent) reported having 0–10 books in their home compared to U.S. fourth-graders, while a smaller percentage did in Canada (6 percent).

On one hand, U.S. fourth-graders who reported having 0–10 books in their home had lower average reading achievement scores than did U.S. fourth-graders who reported having 11–25 books, 26–100 books, 101–200 books, or more than 200 books in their home (figure 10 and table 6). On the other hand, U.S. fourth-graders who reported having the most books (more than 200) did not have higher average reading achievement scores than did fourth-graders who reported having 101–200 or 26–100 books.

As in the United States, fourth-graders in all the other countries presented who reported having 0–10 books in the home had lower average reading achievement than did fourth-graders who reported having more books (i.e. in each of the other categories). Also, as in the United States, in all of the other participating countries fourth-graders who had more than 200 books did not have detectably different average achievement than did fourth-graders who reported having 101–200 books in their home. However, unlike in the United States, in Canada, England, France, Germany, and Scotland, the fourth-graders with the most books had higher average achievement than did the fourth-graders with 26–100 books.

home were classified into one of the following categories: (1) 0–10 books, (2) 11–25 books, (3) 26–100 books, (4) 101–200 books, or (5) more than 200 books.

Table 6. Average reading literacy scores and the percentage distribution of fourth-grade students, by number of books reported at home and country: 2001

Country	Students with 0–10 books		Students with 11–25 books		Students with 26–100 books		Students with 101–200 books		Students with more than 200 books	
	Percentage	Average scale score	Percentage	Average scale score	Percentage	Average scale score	Percentage	Average scale score	Percentage	Average scale score
Canada (O, Q) ^{1,2}	6	492	15	519	35	546	22	565	22	562
England ^{3,4}	7	477	16	518	34	555	23	579	20	577
France	8	472	19	506	36	526	19	545	19	555
Germany	9	486	24	523	35	546	16	568	16	570
Italy	14	499	29	538	30	553	14	560	13	551
Russian Federation ⁴	11	496	21	519	35	535	16	543	17	541
Scotland ³	11	466	18	506	34	539	18	554	19	553
United States ³	9	477	17	522	31	551	22	568	21	556

¹National Desired Population (all 9-year-olds with some national exclusions) does not cover all of International Desired Population (all 9-year-olds) because coverage falls below 65 percent.

²Canada is represented by the provinces of Ontario and Quebec (O,Q) only.

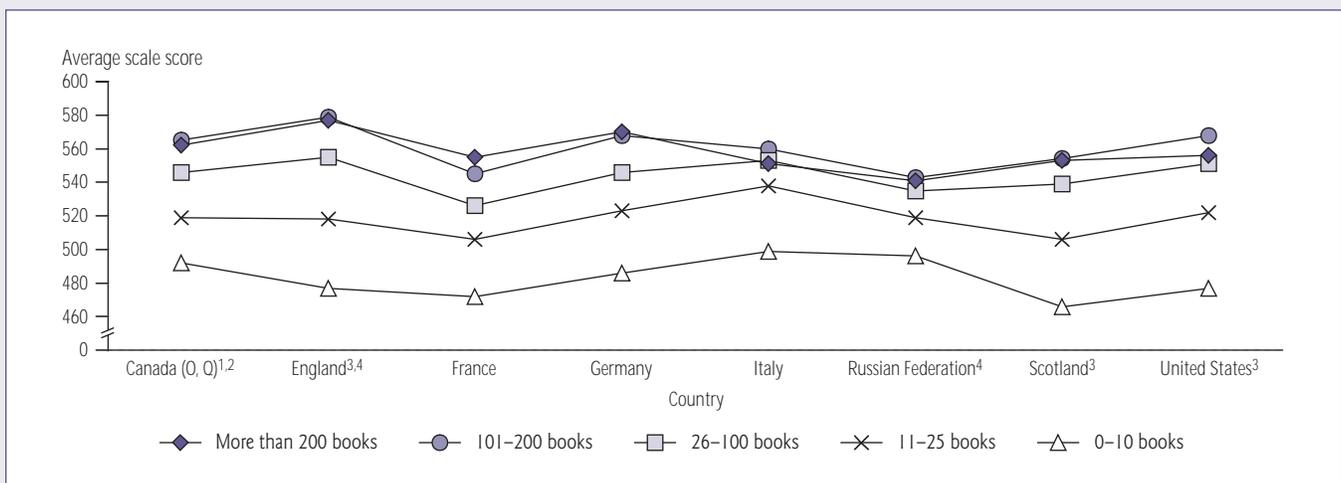
³Met guidelines for sample participation rates after replacement schools were included.

⁴National Defined Population (weighted sample size) covers less than 95 percent of National Desired Population (all 9-year-olds).

NOTE: PIRLS 2001 assessed students in the upper of the two grades with the most 9-year-olds. In the United States and most other countries, this corresponds with the fourth grade. However, in England and Scotland, this refers to students who have received 5 years of formal schooling. PIRLS 2001 scores are reported on a scale of 0 to 1,000, and are scaled to have an international average of 500 and a standard deviation of 100. PIRLS 2001 consisted of 3 scales: a literary subscale, an informational subscale, and a combined reading literacy scale. The combined literacy scale is based on the distribution of scores on all the test items, while the subscales are based on only the items that belong to each subscale. Hence, the combined reading literacy score is not the statistical average of the scores of the two subscales.

SOURCE: Mullis, I.V.S., Martin, M.O., Gonzalez, E.J., and Kennedy, A.M. (2003). *PIRLS 2001 International Report: IEA's Study of Reading Literacy Achievement in Primary Schools in 35 Countries*, Exhibit 4.8. Chestnut Hill, MA: Boston College.

Figure 10. Average reading literacy scores of fourth-grade students, by number of books reported at home and country: 2001



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