

PIRLS

Chapter 4



Chapter 4

Reading in School

Chapter 4 provides more information on the theme that active, frequent reading has a positive impact on reading achievement. As well as contributing to effective participation in activities outside of school, reading forms the foundation of much in-school learning. Through reading, students can develop a depth of understanding of the content knowledge and processes associated with various subject area disciplines. Students also can gain a deeper appreciation for, and understanding of, literature.

IEA's 1991 Reading Literacy Study and its replication in 2001 asked primary/elementary-school students about reading two types of books in reading and language classes – textbooks and story books. Students also were queried about how often they used workbooks or practice exercises as part of reading and language classes, and about how much reading homework they did.

Reading Textbooks and Story Books in Reading or Language Class

Exhibit 4.1 contains trends in how often primary/elementary-school students reported reading textbooks in their reading or language classes. In 2001, there was considerable variation, across countries, in the frequency of reading textbooks. For example, the range in daily textbook reading varied from 71 percent of the Greek students to 14 percent of the Swedish students. Despite these differences, however, in each country, the trend over the past decade was toward reading textbooks less frequently.

In five countries, decreased percentages of primary/elementary-school students reported reading textbooks almost every day. Of these countries, corresponding increased percentages were observed for both weekly and monthly (or less) textbook reading in Iceland, Singapore, and the United States. For Slovenian and Swedish students, the shift was toward reading textbooks monthly or less. In Greece, the pattern was from daily and weekly use toward monthly or less; in New Zealand, from daily use toward weekly; and in Italy, from daily use toward weekly or monthly (but this shift was not statistically significant).

Another consistent pattern in 2001, across countries, was the positive relationship between reading achievement and textbook reading. primary/elementary-school students reading textbooks only monthly or less often had lower reading achievement, on average, than their classmates reading textbooks more frequently. Trends in achievement for the various categories of textbook reading generally followed the overall trends – with Greece, Iceland, and Slovenia showing increases and Sweden showing decreases. The exception was in Hungary, where – in contrast to an overall increase of 16 percent – achievement stayed essentially the same for students infrequently reading textbooks.

Exhibit 4.1: Trends in Students Reading Textbooks in Reading or Language Class

ISC
RLS Trend
1991–2001

Countries	Almost Every Day		About Once a Week		About Once a Month or Less	
	Percent of Students in 2001	1991 to 2001 Difference	Percent of Students in 2001	1991 to 2001 Difference	Percent of Students in 2001	1991 to 2001 Difference
Greece	71 (2.1)	-2 (3.0)	13 (1.3)	-2 (1.8)	15 (1.3)	4 (1.8)
Hungary	65 (1.8)	13 (2.4) ▲	22 (1.2)	-8 (1.7) ▼	13 (0.9)	-5 (1.3) ▼
Iceland	34 (2.1)	-14 (2.3) ▼	33 (1.7)	10 (1.8) ▲	33 (1.7)	4 (1.9) ▲
Italy	51 (2.3)	-4 (3.2)	18 (1.5)	2 (2.0)	31 (2.2)	2 (2.9)
New Zealand	29 (2.6)	-6 (3.4)	23 (2.0)	5 (2.3) ▲	48 (3.3)	1 (4.1)
Singapore	48 (1.6)	-16 (2.7) ▼	29 (1.4)	5 (2.1) ▲	23 (1.2)	11 (1.6) ▲
Slovenia	35 (2.1)	-11 (3.0) ▼	37 (2.0)	3 (2.6)	28 (1.9)	8 (2.3) ▲
Sweden	14 (1.1)	-8 (2.4) ▼	38 (1.6)	-2 (2.5)	48 (1.9)	10 (3.0) ▲
United States	54 (2.7)	-11 (3.2) ▼	22 (1.7)	6 (2.1) ▲	24 (2.3)	5 (2.8) ▲

SOURCE: Trends in IEAs' Reading Literacy Study 1991–2001

Countries	Almost Every Day		About Once a Week		About Once a Month or Less	
	Average Achievement in 2001	1991 to 2001 Difference	Average Achievement in 2001	1991 to 2001 Difference	Average Achievement in 2001	1991 to 2001 Difference
Greece	517 (6.5)	43 (8.3) ▲	513 (8.3)	50 (11.6) ▲	479 (10.0)	23 (12.4)
Hungary	488 (4.5)	10 (6.1)	474 (5.6)	17 (7.5) ▲	419 (7.7)	2 (9.4)
Iceland	506 (5.0)	21 (5.6) ▲	531 (4.2)	20 (5.5) ▲	508 (5.7)	29 (6.1) ▲
Italy	515 (5.3)	7 (7.6)	522 (7.0)	20 (14.2)	505 (6.8)	5 (10.7)
New Zealand	517 (12.4)	13 (13.8)	512 (8.1)	3 (10.4)	492 (6.5)	0 (8.8)
Singapore	496 (7.7)	10 (8.6)	508 (8.7)	18 (9.9)	451 (12.1)	11 (14.5)
Slovenia	497 (5.4)	37 (6.8) ▲	508 (5.8)	47 (7.2) ▲	474 (6.2)	22 (7.9) ▲
Sweden	495 (6.9)	-19 (9.5) ▼	507 (3.8)	-16 (6.0) ▼	493 (4.4)	-12 (7.1)
United States	522 (7.2)	-7 (7.9)	524 (8.9)	-11 (10.2)	479 (9.3)	-14 (10.3)

▲ 2001 significantly higher than 1991

▼ 2001 significantly lower than 1991

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

As shown in Exhibit 4.2, reading story books in reading or language class was at least a weekly activity for the majority of students in each country (except Hungary) in 2001. primary/elementary-school students in a number of countries, however, reported somewhat less frequent reading of story books than a decade earlier. Students in Singapore reported the biggest change – with 11 percent fewer reporting reading story books daily, and a commensurate percentage reporting such reading only monthly or less. Reduced percentages of students in Hungary and New Zealand reported daily story book reading, and fewer reported such reading weekly in Italy and Sweden. More Swedish students reported reading story books only monthly or less, as did more Slovenian students. primary/elementary-school students in Greece, Iceland, and the United States reported very little change in reading story books compared to 1991.

Across the countries participating in the trend study, there was a negligible or inconsistent association between achievement and reading story books. Trends in achievement in relation to the categories followed the national patterns with few exceptions. In Hungary (improvement overall), achievement did not increase for students reporting reading story books daily. In Singapore, where there was a modest improvement overall (8 %), students reporting daily story book reading had a substantial increase (27%), while those reporting such reading weekly had a modest decrease (9%).

Using Workbooks or Practice Exercises in Reading or Language Class

Exhibit 4.3 contains trends in students' reports about workbook use in reading and language instruction. In 2001, there were large differences, across countries, in students' responses. At the high end, about three-fourths (76%) of the students in Hungary and 84 percent in Greece reported daily use of workbooks and practice exercises. Compared to 1991, this represented an increase for Hungary (11%) and a decrease for Greece (4%). At the low end, 24 percent of both the Icelandic and the Swedish students reported using these instructional devices on a daily basis – representing a decrease in both cases (11 and 7%, respectively). In the remaining countries, from 40 to 47 percent of the students

Exhibit 4.2: Trends in Students Reading Story Books in Reading or Language Class
ISC RLS Trend
1991–2001

Countries	Daily		Weekly		Once a Month or Less	
	Percent of Students in 2001	1991 to 2001 Difference	Percent of Students in 2001	1991 to 2001 Difference	Percent of Students in 2001	1991 to 2001 Difference
Greece	32 (1.5)	1 (2.1)	30 (1.8)	-3 (2.3)	38 (2.3)	2 (3.0)
Hungary	14 (1.4)	-5 (2.2) ▼	31 (2.0)	1 (2.4)	55 (2.3)	3 (2.9)
Iceland	23 (1.6)	0 (1.7)	31 (1.8)	2 (1.9)	46 (1.7)	-2 (1.8)
Italy	28 (2.1)	3 (2.6)	23 (1.6)	-6 (2.4) ▼	50 (2.6)	3 (3.2)
New Zealand	41 (3.2)	-9 (4.0) ▼	25 (2.1)	3 (2.6)	34 (3.0)	6 (3.5)
Singapore	48 (1.7)	-11 (2.4) ▼	27 (1.0)	1 (1.6)	25 (1.2)	10 (1.4) ▲
Slovenia	20 (1.3)	-3 (1.9)	38 (1.6)	-2 (2.6)	43 (1.9)	5 (2.7) ▲
Sweden	35 (1.8)	-1 (2.5)	29 (1.2)	-6 (2.1) ▼	36 (1.5)	7 (2.1) ▲
United States	42 (2.6)	0 (2.9)	27 (1.6)	1 (2.0)	30 (2.4)	-1 (2.7)

SOURCE: Trends in IEAs Reading Literacy Study 1991–2001

Countries	Daily		Weekly		Once a Month or Less	
	Average Achievement in 2001	1991 to 2001 Difference	Average Achievement in 2001	1991 to 2001 Difference	Average Achievement in 2001	1991 to 2001 Difference
Greece	521 (6.8)	47 (8.5) ▲	514 (7.1)	38 (10.3) ▲	498 (7.0)	38 (9.9) ▲
Hungary	453 (8.1)	-3 (11.3)	478 (5.3)	17 (7.7) ▲	481 (4.8)	18 (6.7) ▲
Iceland	516 (7.1)	21 (7.6) ▲	519 (5.4)	27 (6.4) ▲	512 (4.0)	29 (4.3) ▲
Italy	510 (7.1)	5 (11.5)	526 (6.1)	-2 (9.3)	510 (5.0)	18 (7.7) ▲
New Zealand	509 (6.5)	7 (8.7)	505 (7.6)	4 (9.9)	497 (8.7)	5 (11.2)
Singapore	519 (8.9)	27 (9.7) ▲	470 (7.1)	-9 (8.1)	451 (7.9)	12 (9.3)
Slovenia	482 (5.3)	29 (7.1) ▲	491 (4.7)	41 (6.0) ▲	500 (5.9)	30 (7.3) ▲
Sweden	507 (5.3)	-16 (7.6) ▼	504 (4.7)	-20 (6.7) ▼	486 (5.8)	-6 (7.9)
United States	512 (8.1)	-5 (9.0)	524 (6.7)	-9 (7.8)	502 (8.5)	-20 (9.6) ▼

▲ 2001 significantly higher than 1991

▼ 2001 significantly lower than 1991

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Exhibit 4.3: Trends in Students Using Workbooks or Practice Exercises in Reading or Language Class
ISC RLS Trend
1991–2001

Countries	Daily		Weekly		Once a Month or Less	
	Percent of Students in 2001	1991 to 2001 Difference	Percent of Students in 2001	1991 to 2001 Difference	Percent of Students in 2001	1991 to 2001 Difference
Greece	84 (1.8)	-4 (2.1) ▼	8 (1.0)	1 (1.3)	8 (1.5)	3 (1.6)
Hungary	76 (1.4)	11 (2.2) ▲	17 (1.2)	-7 (1.7) ▼	6 (0.6)	-4 (1.1) ▼
Iceland	24 (2.1)	-11 (2.2) ▼	28 (1.7)	7 (1.8) ▲	48 (2.3)	5 (2.4) ▲
Italy	43 (2.3)	6 (3.3)	25 (1.7)	-2 (2.7)	32 (2.1)	-3 (3.2)
New Zealand	40 (2.5)	0 (3.5)	27 (2.7)	6 (3.2)	33 (2.8)	-7 (3.7)
Singapore	45 (1.6)	-26 (2.3) ▼	30 (1.1)	11 (1.8) ▲	25 (1.2)	15 (1.4) ▲
Slovenia	47 (2.6)	3 (3.3)	29 (1.8)	-10 (2.6) ▼	24 (2.2)	7 (2.4) ▲
Sweden	24 (1.6)	-7 (2.8) ▼	33 (1.8)	-5 (2.9)	44 (2.2)	12 (3.2) ▲
United States	46 (2.9)	-3 (3.6)	28 (2.0)	2 (2.5)	27 (2.5)	1 (3.1)

SOURCE: Trends in IEAs Reading Literacy Study 1991–2001

Countries	Daily		Weekly		Once a Month or Less	
	Average Achievement in 2001	1991 to 2001 Difference	Average Achievement in 2001	1991 to 2001 Difference	Average Achievement in 2001	1991 to 2001 Difference
Greece	515 (6.3)	41 (8.0) ▲	483 (14.4)	34 (16.3) ▲	485 (14.7)	56 (17.6) ▲
Hungary	482 (4.2)	9 (6.2)	472 (6.1)	24 (8.2) ▲	420 (8.7)	2 (10.9)
Iceland	500 (6.1)	18 (6.8) ▲	521 (5.6)	30 (6.8) ▲	519 (4.7)	25 (4.8) ▲
Italy	519 (5.8)	4 (9.8)	523 (5.3)	12 (8.9)	499 (5.9)	8 (8.3)
New Zealand	512 (5.9)	10 (8.3)	511 (10.6)	9 (12.5)	487 (7.1)	-7 (9.4)
Singapore	505 (8.8)	17 (9.6)	495 (7.9)	12 (9.3)	455 (7.8)	26 (9.4) ▲
Slovenia	496 (4.7)	34 (6.2) ▲	498 (5.4)	43 (6.7) ▲	485 (6.8)	29 (9.1) ▲
Sweden	489 (5.5)	-29 (8.4) ▼	509 (4.4)	-7 (6.9)	496 (4.6)	-12 (7.1)
United States	515 (7.6)	-5 (8.5)	526 (7.9)	-10 (9.1)	492 (8.3)	-23 (9.3) ▼

▲ 2001 significantly higher than 1991

▼ 2001 significantly lower than 1991

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

reported using workbooks daily. This reflected no change in Italy, New Zealand, Slovenia, or the United States, but a huge decrease in Singapore – 26 percentage points. In Slovenia, there was a shift from use weekly to only monthly or less.

In Greece, Iceland, and Slovenia, increases nationally in reading achievement were reflected across the categories of using workbooks and practice exercises. Hungary's achievement increase occurred primarily for students reporting weekly use of workbooks and practice exercises; and Sweden's decrease occurred primarily for students reporting daily use. In Singapore, where there were significant shifts toward less use of workbooks or practice exercises, students using them monthly or less exhibited a significant increase in achievement between 1991 and 2001.

Homework

To provide information about trends in reading homework, an index has been created based on students' responses to two questions: how often were they assigned reading homework, and how much time they spent on their reading homework. Trends in the homework index are presented in Exhibit 4.4.

Students in the high category on the index reported being assigned reading homework 3 times a week and spending more than half an hour doing it. Between 1991 and 2001, the percentages of Greek, Hungarian, and Singaporean students in the high category decreased significantly (6% to 11%), but these countries still had the greatest percentages of students in the category (from 21 to 27 %). All three countries showed increases in the medium category (Singapore, in the low category as well). Italy's 16 percent in the high category represented a decrease from 1991 (6%), which was accompanied by an increase in the low category (8%). Slovenia had a significant decrease in the high category (from 11 to 6 %). Students in New Zealand reported essentially no change in any category.

In Iceland, Sweden, and the United States, students reported some increases in homework. Icelandic students reported a modest decrease in the low category (4%), as did Swedish students (6%). Students in the United States had a significant increase in the medium category (15%), together with a comparable decrease in the low category.

Interpreting the relationship between reading achievement and amount of homework is difficult, since some teachers tend to assign homework to the better readers to give them more learning opportunities; while other teachers assign homework to the poorer readers for remediation, and because they need extra help the most. In 2001, for the countries participating in the trend study, the pattern appears to be toward students in the low category having the highest reading achievement. Between 1991 and 2001, trends in achievement in relation to homework generally followed the national trends.

Exhibit 4.4: Trends in Index of Students' Perceptions of Reading Homework (SPRH)ISC
RLS Trend
1991–2001

Countries	High SPRH			Medium SPRH			Low SPRH		
	Percent of Students in 2001	Percent of Students in 1991	1991 to 2001 Difference	Percent of Students in 2001	Percent of Students in 1991	1991 to 2001 Difference	Percent of Students in 2001	Percent of Students in 1991	1991 to 2001 Difference
Greece	21 (1.3)	31 (1.7)	-10 (2.1) ▼	73 (1.4)	65 (1.7)	8 (2.2) ▲	6 (1.0)	4 (0.8)	2 (1.2)
Hungary	24 (1.2)	30 (1.2)	-6 (1.7) ▼	72 (1.2)	65 (1.1)	7 (1.6) ▲	4 (0.4)	5 (0.6)	-1 (0.7)
Iceland	13 (1.6)	10 (0.5)	2 (1.7)	80 (1.7)	79 (0.8)	1 (1.8)	7 (0.9)	11 (0.5)	-4 (1.0) ▼
Italy	16 (1.7)	22 (1.4)	-6 (2.2) ▼	65 (1.8)	66 (1.3)	-1 (2.2)	19 (1.5)	11 (1.1)	8 (1.9) ▲
New Zealand r	19 (2.7)	18 (1.5)	1 (3.1)	60 (2.1)	61 (1.2)	-1 (2.4)	20 (2.8)	21 (1.5)	0 (3.2)
Singapore	27 (1.1)	37 (1.2)	-11 (1.7) ▼	66 (1.0)	59 (1.2)	7 (1.5) ▲	7 (0.6)	3 (0.3)	4 (0.6) ▲
Slovenia	6 (0.9)	11 (1.0)	-5 (1.3) ▼	59 (2.0)	59 (1.4)	1 (2.5)	34 (2.0)	30 (1.6)	4 (2.6)
Sweden	5 (0.5)	3 (0.4)	2 (0.6) ▲	58 (1.9)	55 (1.8)	3 (2.6)	36 (2.1)	42 (1.9)	-6 (2.8) ▼
United States	10 (1.2)	11 (0.9)	-1 (1.5)	68 (2.3)	53 (1.5)	15 (2.7) ▲	22 (2.6)	37 (1.7)	-14 (3.1) ▼

SOURCE: Trends in IEAs Reading Literacy Study 1991–2001

Countries	High SPRH			Medium SPRH			Low SPRH		
	Average Achievement in 2001	Average Achievement in 1991	1991 to 2001 Difference	Average Achievement in 2001	Average Achievement in 1991	1991 to 2001 Difference	Average Achievement in 2001	Average Achievement in 1991	1991 to 2001 Difference
Greece	490 (9.3)	458 (5.4)	31 (10.8) ▲	516 (6.0)	474 (4.8)	42 (7.7) ▲	503 (19.2)	441 (21.7)	62 (28.7) ▲
Hungary	463 (4.8)	458 (4.7)	6 (6.7)	480 (4.1)	461 (4.2)	18 (5.9) ▲	477 (11.7)	459 (12.8)	18 (17.3)
Iceland	535 (7.0)	493 (5.7)	42 (8.6) ▲	513 (3.3)	489 (2.1)	24 (3.7) ▲	510 (11.4)	483 (5.4)	27 (12.4) ▲
Italy	497 (7.7)	485 (8.1)	12 (11.2)	510 (5.3)	511 (5.9)	0 (7.9)	542 (6.0)	517 (7.6)	25 (9.5) ▲
New Zealand r	517 (17.2)	526 (7.7)	-9 (18.9)	496 (6.9)	493 (5.1)	3 (8.7)	490 (8.8)	489 (9.3)	1 (12.9)
Singapore	479 (7.6)	483 (4.1)	-4 (8.5)	502 (8.0)	486 (3.5)	16 (8.8)	461 (11.8)	465 (7.9)	-5 (14.4)
Slovenia	454 (11.0)	439 (8.9)	15 (14.2)	484 (4.1)	446 (4.1)	38 (5.8) ▲	516 (5.3)	486 (3.9)	30 (6.5) ▲
Sweden	492 (11.2)	471 (14.0)	20 (18.2)	494 (5.1)	505 (4.4)	-11 (6.7)	504 (5.0)	525 (4.6)	-21 (6.8) ▼
United States	493 (15.2)	514 (6.1)	-21 (16.6)	513 (7.1)	521 (4.1)	-8 (8.1)	526 (7.2)	529 (3.8)	-3 (8.2)

▲ 2001 significantly higher than 1991

▼ 2001 significantly lower than 1991

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

An "r" indicates a 70–84% student response rate. An "s" indicates a 50–69% student response rate. An "x" indicates less than 50% student response rate.