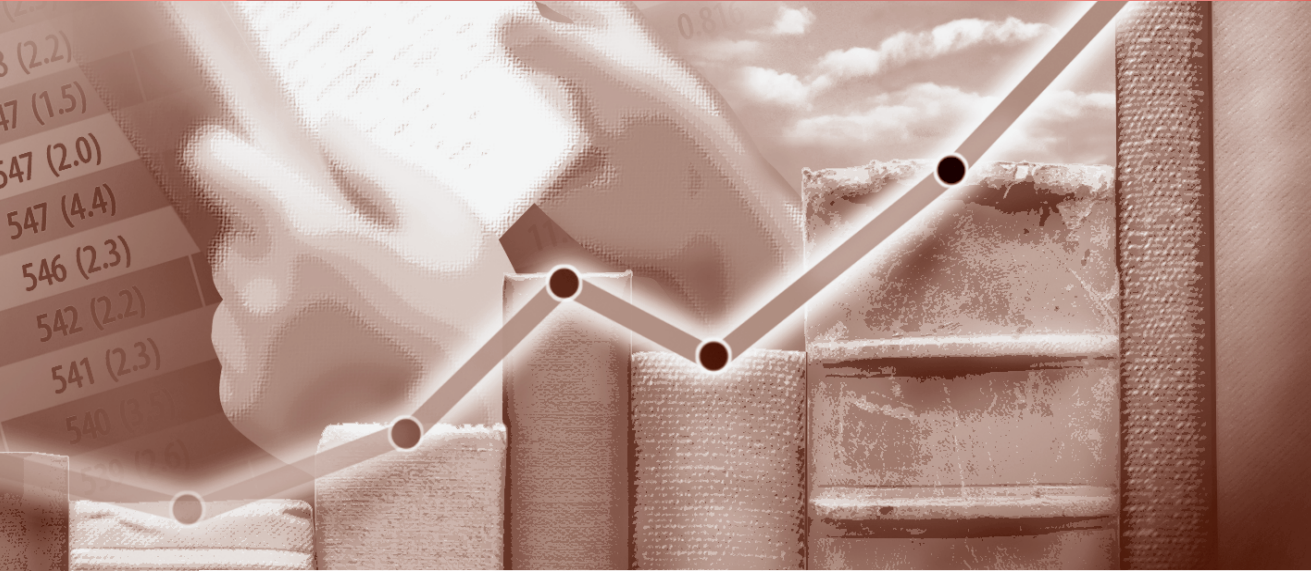


Chapter 8



Classroom Instruction

Overall, students with positive attitudes toward reading have higher achievement. Internationally, three-fourths are motivated to read, but the majority of students (57%) like reading only to some degree and just one-third were confident readers.

Engaging instruction as well as good nutrition and enough sleep were related to higher achievement. Most fourth grade students (71%) had teachers that used engaging instructional strategies, and nearly all the students reported being engaged (42%) or somewhat engaged (50%) in their reading lessons. Unfortunately, internationally, teachers reported limiting instruction because about one-quarter of the students were suffering from lack of basic nutrition and nearly half from not enough sleep.

This chapter considers the learning environment of the classroom itself, because classroom instruction is at the core of student learning. Previous chapters of this report have described how teaching effectiveness can be greatly influenced by students' home and school environments as well as by the teacher's preparation. However, even though the curricular policies and school resources often set the tone for accomplishment, fourth grade students' day-to-day classroom activities are likely to have a considerable direct impact on their reading development. As described in the *PIRLS 2011 Assessment Framework*, the instructional approaches and materials used in the classroom are clearly important to establishing teaching and learning patterns, including the content to be covered, the strategies employed to teach it, and the availability of books, technology, and other resources. Finally, the behaviors, attitudes, and literacy level of students in the classroom may influence or limit teachers' instruction choices, thereby affecting students' reading development (Nichols et al., 2005).

PIRLS routinely presents very powerful evidence showing that, within countries, fourth grade students with more positive attitudes toward reading have substantially higher reading achievement, and PIRLS 2011 is consistent with previous assessments. In addition to being motivated to learn, students need the opportunity to learn. Thus, this chapter also provides information about the instructional time devoted to reading and the approaches teachers use to engage students in learning. It is difficult to engage students in learning, for example, if they do not have the prerequisite skills or are too sleep deprived or disruptive to pay attention to the teacher. Finally, an effective classroom learning environment for reading includes sufficient materials and equipment, such as access to many books and availability of computers, so children can read a wide variety of material and information.

Students' Attitudes Toward Reading

Each successive PIRLS assessment has shown a strong positive relationship within countries between student attitudes toward reading and their reading achievement. Additionally, the research literature abounds with evidence about the importance of children spending time reading, enjoying reading, and valuing reading. For example, a recent meta-analysis of 32 studies indicated the relationship between attitudes toward reading and reading achievement was especially strong for elementary school students (Petscher, 2010).

Students Like Reading

Research indicates that positive attitudes and high achievement in reading go hand in hand. That is, students who like reading have higher achievement, but the relationship is bidirectional, with attitudes and achievement mutually influencing each other. Better readers also enjoy reading more than poorer readers.

Independent reading and discussing reading can be an integral part of ongoing activities in the home. For example, the US National Reading Panel (2000) encouraged parents to help their children strike a balance between literacy-related activities and perhaps less enriching pastimes such as playing video games or watching excessive amounts of television. As children are developing reading skills, the time they devote to reading becomes significant. They are practicing their skills and developing habits of lifelong learning—reading for fun and to investigate topics of interest.

Exhibit 8.1 presents the results for the PIRLS 2011 Students Like Reading scale. Students were scored according to the degree of their agreement with six statements such as “I read only if I have to” (reverse coded), “I like talking about what I read with other people,” and “I would like to have more time for reading,” together with how often they read for pleasure out of school (see second page of the exhibit for details). To be in the **Like Reading** category, students “agreed a lot” with three of the six statements, “agreed a little” with the other three, and did out-of-school reading of their own choosing or for fun on a daily basis, on average. In contrast, students who **Do Not Like Reading** “disagreed a little” with three of the statements and “agreed a little” with the other three, on average, and did out-of-school pleasure reading only “once or twice a month.”

For each PIRLS 2011 participant, the percentage of students in each category is shown together with the students’ average reading achievement. The first page of the exhibit presents the results for countries participating at the fourth grade, and the average results across those countries. The second page of the exhibit presents the results for the sixth grade, benchmarking, and prePIRLS participants.

On average, a greater percentage of fourth grade students internationally fell into the **Like Reading** category than into the **Do Not Like Reading** category (28% vs. 15%). However, the majority of fourth grade students were in the category of **Somewhat Like Reading** (57%). On average, internationally, and for nearly every PIRLS 2011 participant, including the sixth grade, benchmarking, and prePIRLS, students who liked reading had higher average reading

Exhibit 8.1: Students Like Reading

Reported by Students

Students were scored on the *Students Like Reading* scale according to their degree of agreement with six statements and how often they did two reading activities outside of school. Students who **Like Reading** had a score on the scale of at least 11.0, which corresponds to their “agreeing a lot” with three of the six statements and “agreeing a little” with the other three, as well as doing both reading activities outside of school “every day or almost every day,” on average. Students who **Do Not Like Reading** had a score no higher than 8.2, which corresponds to their “disagreeing a little” with three of the six statements and “agreeing a little” with the other three, as well as doing both reading activities only “once or twice a month,” on average. All other students **Somewhat Like Reading**.

| Country | Like Reading | | Somewhat Like Reading | | Do Not Like Reading | | Average Scale Score |
|-----------------------|---------------------|---------------------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Portugal | 46 (1.5) | 555 (2.9) | 51 (1.4) | 529 (3.1) | 3 (0.4) | 520 (8.1) | 10.9 (0.06) |
| Georgia | 42 (1.2) | 511 (2.9) | 52 (1.2) | 475 (3.6) | 5 (0.4) | 457 (7.0) | 10.8 (0.05) |
| Ireland | 37 (1.2) | 580 (2.5) | 49 (0.9) | 543 (3.0) | 14 (0.9) | 514 (4.9) | 10.4 (0.07) |
| Canada | 35 (0.6) | 574 (2.1) | 51 (0.6) | 539 (1.9) | 14 (0.5) | 520 (2.7) | 10.3 (0.03) |
| Romania | 35 (1.3) | 536 (4.2) | 54 (1.0) | 489 (4.8) | 12 (1.1) | 469 (9.8) | 10.4 (0.07) |
| Iran, Islamic Rep. of | 34 (1.3) | 487 (3.2) | 61 (1.1) | 444 (3.2) | 4 (0.5) | 413 (9.0) | 10.5 (0.05) |
| Malta | 34 (0.8) | 506 (2.5) | 50 (0.8) | 466 (2.4) | 16 (0.6) | 452 (3.9) | 10.2 (0.03) |
| Germany | 34 (1.0) | 570 (2.9) | 50 (1.0) | 535 (2.3) | 16 (0.7) | 514 (3.6) | 10.2 (0.04) |
| Azerbaijan | 33 (1.4) | 479 (4.1) | 61 (1.3) | 463 (3.0) | 6 (0.6) | 436 (8.6) | 10.4 (0.05) |
| Israel | 32 (1.3) | 565 (3.1) | 49 (1.1) | 528 (3.4) | 18 (1.0) | 537 (4.9) | 10.1 (0.07) |
| Indonesia | 32 (1.5) | 453 (3.9) | 66 (1.4) | 421 (4.2) | 2 (0.3) | ~ ~ | 10.5 (0.05) |
| France | 32 (1.1) | 550 (3.0) | 56 (1.0) | 510 (2.6) | 12 (1.0) | 488 (3.5) | 10.2 (0.06) |
| New Zealand | 32 (0.9) | 574 (2.7) | 53 (0.8) | 515 (2.4) | 14 (0.6) | 497 (3.6) | 10.2 (0.05) |
| Bulgaria | 32 (1.4) | 558 (4.1) | 52 (1.2) | 527 (4.6) | 16 (1.0) | 504 (6.4) | 10.2 (0.07) |
| Spain | 31 (0.9) | 537 (3.0) | 55 (0.8) | 505 (2.5) | 14 (0.8) | 495 (3.6) | 10.2 (0.05) |
| Austria | 31 (0.9) | 548 (2.5) | 51 (0.9) | 525 (2.3) | 18 (0.9) | 508 (3.2) | 10.0 (0.05) |
| Colombia | 31 (1.3) | 474 (3.9) | 62 (1.3) | 438 (4.7) | 8 (0.7) | 438 (9.0) | 10.3 (0.06) |
| Czech Republic | 30 (1.0) | 564 (3.2) | 53 (1.0) | 542 (2.2) | 17 (0.9) | 524 (3.9) | 10.0 (0.05) |
| Belgium (French) | 30 (1.1) | 532 (3.2) | 56 (1.1) | 499 (3.3) | 14 (0.8) | 482 (4.1) | 10.1 (0.05) |
| Australia | 30 (0.9) | 565 (2.7) | 52 (0.8) | 518 (2.8) | 19 (0.7) | 494 (4.0) | 9.9 (0.05) |
| Northern Ireland | 29 (1.3) | 590 (3.3) | 51 (1.0) | 554 (2.7) | 20 (0.9) | 527 (3.5) | 9.9 (0.07) |
| Trinidad and Tobago | 28 (1.2) | 508 (4.4) | 58 (1.1) | 461 (4.3) | 14 (0.9) | 444 (6.6) | 10.1 (0.06) |
| Slovenia | 28 (1.1) | 559 (2.4) | 55 (1.0) | 526 (1.9) | 16 (0.9) | 498 (5.1) | 10.0 (0.06) |
| Lithuania | 27 (1.1) | 552 (2.8) | 59 (0.9) | 522 (2.3) | 14 (0.7) | 513 (3.5) | 10.0 (0.04) |
| United States | 27 (0.6) | 586 (2.1) | 51 (0.7) | 551 (1.7) | 22 (0.6) | 536 (2.4) | 9.7 (0.03) |
| England | 26 (1.1) | 589 (3.9) | 53 (0.9) | 545 (2.9) | 20 (1.0) | 519 (4.0) | 9.8 (0.06) |
| Saudi Arabia | 26 (1.3) | 464 (3.6) | 65 (1.4) | 421 (5.0) | 9 (0.8) | 400 (10.7) | 10.1 (0.05) |
| Russian Federation | 26 (1.0) | 587 (3.2) | 61 (0.8) | 564 (3.0) | 13 (0.7) | 554 (3.3) | 10.0 (0.05) |
| Hungary | 26 (0.9) | 574 (3.3) | 52 (0.9) | 534 (3.0) | 22 (1.1) | 513 (5.2) | 9.8 (0.06) |
| Finland | 26 (1.0) | 596 (2.6) | 54 (0.9) | 568 (2.3) | 21 (0.9) | 534 (2.2) | 9.7 (0.06) |
| United Arab Emirates | 25 (0.6) | 493 (3.3) | 65 (0.6) | 424 (2.2) | 10 (0.5) | 407 (4.9) | 10.0 (0.03) |
| Slovak Republic | 24 (0.9) | 560 (3.7) | 54 (0.9) | 532 (2.7) | 21 (0.9) | 515 (3.7) | 9.7 (0.05) |
| Poland | 24 (0.7) | 549 (3.3) | 56 (0.8) | 526 (2.4) | 20 (0.7) | 499 (3.1) | 9.8 (0.04) |
| Chinese Taipei | 23 (1.0) | 585 (2.7) | 57 (0.8) | 550 (1.9) | 20 (1.0) | 523 (3.2) | 9.7 (0.05) |
| Italy | 23 (1.0) | 564 (3.1) | 60 (1.0) | 538 (2.6) | 18 (0.9) | 526 (2.8) | 9.7 (0.05) |
| Oman | 23 (1.0) | 431 (3.4) | 69 (0.9) | 386 (2.8) | 9 (0.4) | 334 (7.3) | 10.0 (0.05) |
| Norway | 22 (1.0) | 533 (3.5) | 59 (1.2) | 506 (2.3) | 19 (1.4) | 483 (2.7) | 9.7 (0.07) |
| Singapore | 22 (0.8) | 610 (3.5) | 63 (0.8) | 560 (3.4) | 15 (0.6) | 538 (4.2) | 9.8 (0.04) |
| Hong Kong SAR | 21 (1.0) | 596 (2.6) | 62 (0.8) | 568 (2.5) | 16 (0.8) | 550 (3.2) | 9.7 (0.05) |
| Sweden | 21 (0.9) | 571 (3.6) | 58 (1.3) | 541 (2.5) | 21 (1.1) | 516 (2.5) | 9.6 (0.05) |
| Morocco | 21 (1.2) | 361 (4.4) | 67 (1.5) | 304 (4.2) | 12 (1.1) | 269 (8.9) | 9.9 (0.06) |
| Netherlands | 20 (0.7) | 569 (2.8) | 53 (0.8) | 548 (2.0) | 27 (0.8) | 526 (2.6) | 9.4 (0.04) |
| Denmark | 19 (0.8) | 583 (2.6) | 60 (0.9) | 552 (1.9) | 21 (0.8) | 536 (2.3) | 9.5 (0.04) |
| Croatia | 17 (0.8) | 572 (3.1) | 53 (0.9) | 552 (2.1) | 29 (1.0) | 544 (2.1) | 9.3 (0.05) |
| Qatar | 17 (0.7) | 487 (5.6) | 71 (0.8) | 417 (3.6) | 12 (0.6) | 396 (6.7) | 9.7 (0.03) |
| International Avg. | 28 (0.2) | 542 (0.5) | 57 (0.1) | 506 (0.5) | 15 (0.1) | 488 (0.8) | |

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

Centerpoint of scale set at 10.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

Exhibit 8.1: Students Like Reading (Continued)

| Country | Like Reading | | Somewhat Like Reading | | Do Not Like Reading | | Average Scale Score |
|--|---------------------|---------------------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Sixth Grade Participants | | | | | | | |
| Morocco | 30 (1.3) | 458 (4.8) | 62 (1.3) | 411 (4.4) | 8 (0.6) | 396 (8.9) | 10.3 (0.06) |
| Honduras | 24 (1.3) | 463 (5.2) | 67 (1.2) | 443 (5.4) | 10 (0.9) | 469 (9.6) | 10.0 (0.06) |
| Botswana | 23 (1.0) | 470 (4.8) | 70 (0.9) | 409 (4.0) | 8 (0.6) | 365 (9.6) | 10.0 (0.04) |
| Kuwait | 21 (1.3) | 470 (6.8) | 65 (1.2) | 413 (5.8) | 13 (0.9) | 414 (7.7) | 9.8 (0.06) |
| Benchmarking Participants^o | | | | | | | |
| Ontario, Canada | 36 (1.1) | 577 (3.8) | 49 (1.1) | 543 (2.7) | 15 (1.0) | 523 (4.7) | 10.3 (0.06) |
| Alberta, Canada | 35 (1.0) | 574 (3.0) | 51 (1.0) | 539 (3.4) | 14 (0.7) | 520 (3.7) | 10.3 (0.05) |
| Maltese - Malta | 34 (0.8) | 483 (2.5) | 50 (0.9) | 448 (2.1) | 16 (0.7) | 433 (4.4) | 10.2 (0.04) |
| Quebec, Canada | 33 (1.1) | 560 (2.9) | 54 (1.0) | 531 (2.6) | 13 (0.8) | 511 (2.7) | 10.3 (0.05) |
| Andalusia, Spain | 32 (1.4) | 537 (2.7) | 54 (1.1) | 507 (3.0) | 14 (1.2) | 499 (3.3) | 10.2 (0.08) |
| Dubai, UAE | 30 (0.9) | 530 (3.3) | 60 (0.9) | 460 (2.5) | 10 (0.5) | 431 (5.0) | 10.2 (0.04) |
| Florida, US | 27 (1.4) | 599 (4.1) | 52 (1.2) | 564 (3.2) | 20 (1.2) | 545 (3.4) | 9.8 (0.07) |
| Abu Dhabi, UAE | 24 (1.3) | 478 (6.3) | 64 (1.2) | 410 (4.1) | 12 (0.9) | 397 (8.9) | 9.9 (0.05) |
| Eng/Afr (5) - RSA | 22 (1.0) | 481 (9.1) | 67 (1.1) | 405 (7.4) | 11 (0.9) | 421 (10.6) | 9.9 (0.05) |

^o Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Like Reading | | Somewhat Like Reading | | Do Not Like Reading | | Average Scale Score |
|--------------|---------------------|---------------------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Colombia | 31 (1.3) | 596 (3.7) | 62 (1.3) | 569 (3.9) | 8 (0.7) | 567 (7.8) | 10.3 (0.06) |
| South Africa | 16 (0.7) | 519 (5.6) | 72 (0.8) | 459 (3.6) | 12 (0.6) | 427 (5.1) | 9.7 (0.03) |
| Botswana | 10 (0.7) | 529 (7.3) | 73 (0.9) | 463 (3.2) | 17 (0.9) | 431 (4.8) | 9.3 (0.04) |

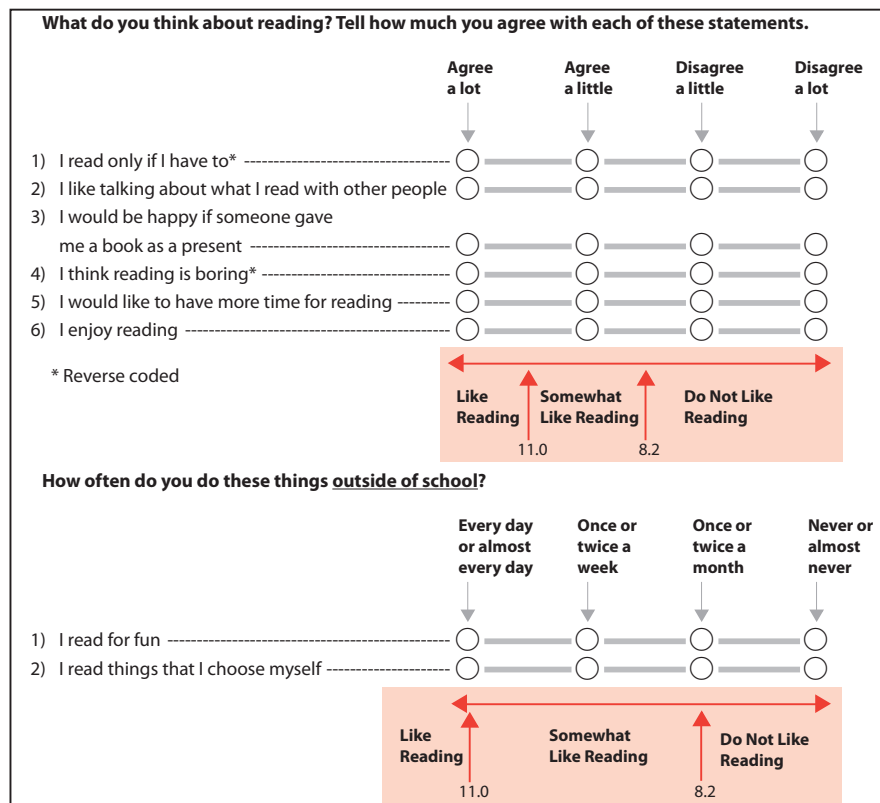


Exhibit 8.2: Students Motivated to Read

Reported by Students

Students were scored according to their degree of agreement with six statements on the *Students Motivated to Read* scale. Students **Motivated** to read had a score on the scale of at least 8.7, which corresponds to their “agreeing a lot” with three of the six statements and “agreeing a little” with the other three, on average. Students who were **Not Motivated** had a score no higher than 6.8, which corresponds to their “disagreeing a little” with three of the six statements and “agreeing a little” with the other three, on average. All other students were **Somewhat Motivated** to read.

| Country | Motivated | | Somewhat Motivated | | Not Motivated | | Average Scale Score |
|---------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Georgia | 92 (0.6) | 497 (2.9) | 7 (0.6) | 442 (8.8) | 2 (0.2) | ~ ~ | 11.2 (0.04) |
| Indonesia | 91 (0.8) | 436 (3.5) | 8 (0.6) | 397 (7.5) | 1 (0.3) | ~ ~ | 11.0 (0.05) |
| Trinidad and Tobago | 88 (0.9) | 478 (3.6) | 10 (0.7) | 444 (8.0) | 3 (0.4) | 384 (12.3) | 10.9 (0.06) |
| Colombia | 87 (1.1) | 457 (4.1) | 10 (1.0) | 417 (8.8) | 3 (0.4) | 397 (7.6) | 10.9 (0.06) |
| Azerbaijan | 87 (0.9) | 474 (2.9) | 11 (0.8) | 445 (6.6) | 2 (0.2) | ~ ~ | 10.9 (0.07) |
| Iran, Islamic Rep. of | 86 (0.6) | 462 (2.9) | 11 (0.5) | 441 (5.3) | 3 (0.3) | 398 (10.3) | 10.7 (0.04) |
| Bulgaria | 85 (1.0) | 541 (3.3) | 12 (0.7) | 512 (6.6) | 4 (0.6) | 457 (10.3) | 10.6 (0.06) |
| Romania | 83 (1.3) | 512 (3.8) | 13 (0.8) | 482 (7.3) | 4 (0.9) | 401 (13.2) | 10.4 (0.08) |
| Russian Federation | 83 (0.7) | 571 (2.7) | 15 (0.7) | 565 (3.8) | 2 (0.2) | ~ ~ | 10.3 (0.04) |
| Portugal | 83 (1.1) | 544 (2.7) | 16 (1.0) | 527 (4.3) | 1 (0.2) | ~ ~ | 10.5 (0.06) |
| Saudi Arabia | 83 (1.1) | 443 (3.7) | 14 (0.8) | 389 (9.0) | 4 (0.6) | 340 (15.8) | 10.6 (0.07) |
| Oman | 83 (0.6) | 403 (2.7) | 14 (0.5) | 350 (4.6) | 4 (0.3) | 299 (7.7) | 10.6 (0.05) |
| Malta | 82 (0.6) | 486 (1.7) | 14 (0.5) | 453 (4.6) | 4 (0.3) | 407 (9.2) | 10.4 (0.03) |
| Norway | 81 (1.0) | 508 (2.3) | 16 (0.9) | 508 (3.9) | 3 (0.4) | 487 (14.0) | 10.3 (0.05) |
| United Arab Emirates | 80 (0.6) | 448 (2.3) | 16 (0.5) | 416 (3.6) | 5 (0.3) | 381 (6.3) | 10.4 (0.03) |
| Croatia | 80 (0.9) | 554 (1.9) | 17 (0.8) | 554 (3.2) | 4 (0.3) | 542 (5.4) | 10.3 (0.04) |
| Lithuania | 79 (0.8) | 531 (2.1) | 18 (0.8) | 525 (3.9) | 3 (0.3) | 505 (9.6) | 10.1 (0.04) |
| Spain | 77 (0.8) | 517 (2.5) | 19 (0.8) | 506 (3.0) | 4 (0.3) | 494 (7.6) | 10.2 (0.05) |
| Morocco | 77 (1.7) | 328 (4.1) | 16 (1.1) | 268 (5.2) | 7 (1.0) | 261 (10.9) | 10.3 (0.09) |
| Slovak Republic | 76 (0.9) | 540 (2.6) | 20 (0.8) | 528 (3.6) | 4 (0.4) | 502 (6.4) | 9.8 (0.05) |
| Ireland | 75 (1.0) | 554 (2.6) | 20 (0.9) | 551 (4.1) | 4 (0.4) | 523 (5.6) | 10.0 (0.05) |
| Israel | 75 (1.2) | 544 (2.5) | 19 (0.9) | 536 (5.8) | 7 (0.6) | 540 (7.2) | 10.1 (0.06) |
| Denmark | 74 (0.9) | 553 (1.9) | 23 (0.9) | 560 (2.5) | 2 (0.2) | ~ ~ | 9.8 (0.04) |
| Qatar | 73 (1.0) | 444 (3.7) | 21 (0.7) | 397 (6.1) | 6 (0.4) | 361 (9.5) | 10.1 (0.05) |
| New Zealand | 72 (0.9) | 536 (2.1) | 23 (0.9) | 533 (3.7) | 5 (0.4) | 483 (6.6) | 9.8 (0.04) |
| Austria | 72 (0.9) | 531 (2.1) | 23 (0.7) | 530 (2.8) | 5 (0.4) | 508 (5.3) | 9.8 (0.04) |
| Poland | 72 (0.8) | 530 (2.3) | 23 (0.7) | 526 (3.2) | 6 (0.3) | 483 (5.6) | 9.9 (0.04) |
| Canada | 72 (0.6) | 551 (1.7) | 24 (0.6) | 549 (2.2) | 4 (0.2) | 530 (5.2) | 9.8 (0.03) |
| Australia | 71 (1.0) | 532 (2.7) | 23 (0.9) | 527 (3.2) | 7 (0.5) | 493 (5.7) | 9.7 (0.05) |
| United States | 71 (0.6) | 560 (1.5) | 23 (0.5) | 557 (2.3) | 6 (0.3) | 530 (4.5) | 9.7 (0.03) |
| Belgium (French) | 70 (1.5) | 508 (3.0) | 25 (1.2) | 506 (3.8) | 5 (0.5) | 477 (6.2) | 9.8 (0.06) |
| Hungary | 69 (1.0) | 549 (2.7) | 25 (0.9) | 529 (4.5) | 6 (0.4) | 491 (7.9) | 9.7 (0.05) |
| Germany | 68 (0.7) | 545 (2.6) | 28 (0.7) | 547 (2.5) | 4 (0.4) | 517 (6.9) | 9.5 (0.04) |
| France | 68 (1.1) | 522 (2.9) | 27 (0.9) | 520 (3.1) | 5 (0.5) | 498 (5.6) | 9.6 (0.05) |
| Czech Republic | 67 (1.3) | 549 (2.3) | 28 (1.1) | 544 (3.2) | 5 (0.5) | 517 (6.5) | 9.5 (0.05) |
| Slovenia | 66 (1.1) | 531 (2.1) | 29 (1.0) | 535 (2.9) | 4 (0.4) | 503 (7.6) | 9.4 (0.04) |
| Sweden | 66 (1.2) | 540 (2.2) | 30 (1.1) | 547 (3.1) | 4 (0.5) | 529 (7.4) | 9.4 (0.04) |
| Northern Ireland | 65 (1.2) | 561 (2.7) | 29 (1.0) | 561 (2.9) | 7 (0.6) | 533 (5.5) | 9.4 (0.05) |
| Netherlands | 65 (1.0) | 550 (2.0) | 29 (0.9) | 545 (2.3) | 6 (0.5) | 521 (5.8) | 9.4 (0.05) |
| England | 65 (1.4) | 551 (2.9) | 28 (1.2) | 559 (3.2) | 7 (0.5) | 531 (7.8) | 9.4 (0.06) |
| Italy | 62 (1.2) | 545 (2.4) | 33 (1.0) | 541 (3.0) | 4 (0.4) | 515 (5.7) | 9.4 (0.04) |
| Chinese Taipei | 62 (1.3) | 566 (2.0) | 27 (0.9) | 542 (2.6) | 12 (0.7) | 512 (4.0) | 9.4 (0.06) |
| Singapore | 60 (0.7) | 576 (3.5) | 31 (0.6) | 562 (3.6) | 8 (0.4) | 533 (5.6) | 9.3 (0.03) |
| Finland | 59 (1.1) | 570 (2.2) | 34 (1.0) | 571 (2.4) | 7 (0.6) | 543 (4.4) | 9.2 (0.05) |
| Hong Kong SAR | 52 (1.0) | 577 (2.4) | 34 (0.8) | 570 (2.8) | 15 (0.8) | 551 (3.8) | 8.9 (0.05) |
| International Avg. | 74 (0.1) | 518 (0.4) | 21 (0.1) | 503 (0.7) | 5 (0.1) | 474 (1.3) | |

Centerpoint of scale set at 10.
 () Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.
 A tilde (~) indicates insufficient data to report achievement.
 An “r” indicates data are available for at least 70% but less than 85% of the students.

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

Exhibit 8.2: Students Motivated to Read (Continued)

| Country | Motivated | | Somewhat Motivated | | Not Motivated | | Average Scale Score |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Sixth Grade Participants | | | | | | | |
| Honduras | 87 (1.0) | 452 (4.8) | 11 (0.9) | 443 (10.1) | 2 (0.3) | ~ ~ | 10.9 (0.06) |
| Morocco | 82 (1.2) | 433 (4.2) | 14 (0.9) | 388 (6.5) | 5 (0.6) | 383 (11.3) | 10.5 (0.06) |
| Kuwait | 71 (1.2) | 444 (4.6) | 23 (1.1) | 394 (7.1) | 6 (0.5) | 371 (14.1) | 9.9 (0.06) |
| Botswana | 71 (1.5) | 448 (4.2) | 21 (1.1) | 363 (3.8) | 8 (0.6) | 327 (5.4) | 9.9 (0.07) |
| Benchmarking Participants^o | | | | | | | |
| Maltese - Malta | 82 (0.7) | 466 (1.6) | 14 (0.6) | 431 (4.1) | 4 (0.3) | 395 (7.9) | 10.4 (0.04) |
| Dubai, UAE | 81 (0.6) | 485 (2.1) | 15 (0.5) | 469 (3.8) | 4 (0.3) | 410 (8.2) | 10.3 (0.04) |
| Abu Dhabi, UAE | 79 (1.1) | 435 (4.7) | 16 (0.8) | 398 (7.2) | 5 (0.6) | 374 (11.9) | 10.3 (0.06) |
| Eng/Afr (5) - RSA | 78 (1.2) | 441 (6.8) | 17 (1.0) | 386 (12.2) | 6 (0.6) | 349 (15.6) | 10.3 (0.07) |
| Andalusia, Spain | 77 (1.0) | 519 (2.4) | 20 (0.9) | 505 (3.8) | 3 (0.3) | 494 (5.7) | 10.4 (0.05) |
| Alberta, Canada | 75 (1.1) | 550 (3.1) | 21 (1.0) | 551 (3.2) | 4 (0.3) | 519 (6.3) | 10.0 (0.05) |
| Ontario, Canada | 75 (1.3) | 554 (2.7) | 21 (0.9) | 551 (3.8) | 4 (0.6) | 537 (8.8) | 9.9 (0.05) |
| Florida, US | 74 (1.1) | 573 (2.9) | 20 (1.0) | 569 (3.7) | 5 (0.5) | 538 (7.0) | 10.0 (0.06) |
| Quebec, Canada | 61 (1.1) | 537 (2.3) | 34 (1.0) | 542 (3.2) | 5 (0.5) | 526 (5.5) | 9.2 (0.05) |

^o Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Motivated | | Somewhat Motivated | | Not Motivated | | Average Scale Score |
|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Colombia | 87 (1.1) | 584 (3.2) | 10 (1.0) | 551 (9.5) | 3 (0.5) | 532 (8.5) | 10.9 (0.06) |
| South Africa | 68 (1.4) | 494 (3.9) | 22 (0.9) | 432 (4.2) | 10 (0.7) | 395 (4.3) | 9.9 (0.07) |
| Botswana | 48 (1.8) | 506 (5.0) | 32 (1.0) | 432 (2.9) | 21 (1.2) | 422 (2.8) | 8.9 (0.08) |

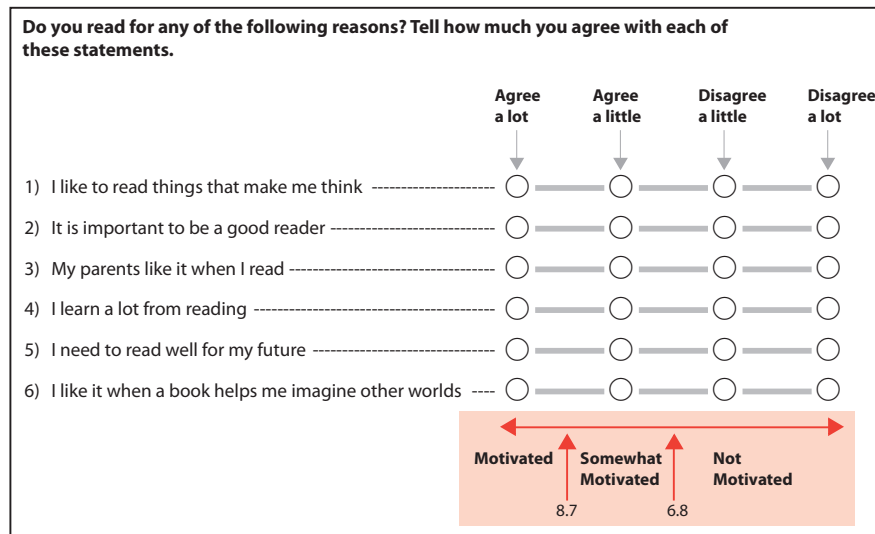


Exhibit 8.3: Students Confident in Reading

Reported by Students

Students were scored according to their degree of agreement with seven statements on the *Students Confident in Reading* scale. Students **Confident** in reading had a score on the scale of at least 10.6, which corresponds to their “agreeing a lot” with four of the seven statements and “agreeing a little” with the other three, on average. Students who were **Not Confident** had a score no higher than 7.9, which corresponds to their “disagreeing a little” with four of the seven statements and “agreeing a little” with the other three, on average. All other students were **Somewhat Confident** in reading.

| Country | Confident | | Somewhat Confident | | Not Confident | | Average Scale Score |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Israel | 49 (1.2) | 576 (2.4) | 43 (0.9) | 517 (3.8) | 8 (0.5) | 476 (6.7) | 10.6 (0.05) |
| Austria | 48 (0.9) | 550 (2.3) | 44 (1.1) | 516 (2.1) | 8 (0.5) | 479 (3.7) | 10.6 (0.04) |
| Croatia | 48 (0.7) | 574 (2.1) | 43 (0.7) | 540 (1.9) | 9 (0.5) | 506 (4.0) | 10.4 (0.03) |
| Finland | 48 (1.2) | 590 (2.0) | 47 (1.1) | 552 (2.3) | 5 (0.5) | 507 (6.7) | 10.5 (0.05) |
| Bulgaria | 47 (1.4) | 566 (3.1) | 40 (1.1) | 516 (4.3) | 12 (1.0) | 471 (7.6) | 10.3 (0.07) |
| Sweden | 47 (0.8) | 565 (2.5) | 48 (0.9) | 527 (2.4) | 5 (0.4) | 471 (6.1) | 10.5 (0.04) |
| Germany | 46 (1.0) | 568 (2.2) | 45 (1.0) | 531 (2.5) | 9 (0.5) | 489 (4.8) | 10.5 (0.05) |
| Ireland | 44 (1.1) | 580 (2.1) | 49 (1.1) | 537 (2.9) | 8 (0.6) | 490 (5.0) | 10.3 (0.05) |
| Romania | 44 (1.2) | 544 (3.7) | 44 (1.2) | 488 (4.2) | 12 (1.2) | 414 (10.1) | 10.3 (0.06) |
| Poland | 44 (0.8) | 560 (2.3) | 45 (0.8) | 513 (2.4) | 12 (0.6) | 456 (3.9) | 10.3 (0.04) |
| Slovenia | 43 (1.0) | 561 (2.1) | 48 (1.0) | 517 (2.4) | 10 (0.5) | 465 (4.6) | 10.4 (0.04) |
| Canada | 41 (0.7) | 578 (1.7) | 51 (0.6) | 536 (1.7) | 9 (0.4) | 497 (3.1) | 10.2 (0.04) |
| Hungary | 41 (1.0) | 581 (2.4) | 45 (0.8) | 524 (3.3) | 14 (0.8) | 480 (6.3) | 10.2 (0.05) |
| Norway | 40 (1.4) | 531 (2.6) | 53 (1.4) | 498 (2.3) | 6 (0.5) | 447 (5.9) | 10.3 (0.05) |
| United States | 40 (0.9) | 588 (1.6) | 49 (0.7) | 545 (1.5) | 11 (0.4) | 503 (2.4) | 10.2 (0.04) |
| Iran, Islamic Rep. of | 39 (1.0) | 490 (2.9) | 54 (0.9) | 442 (3.1) | 7 (0.4) | 395 (6.5) | 10.2 (0.04) |
| Azerbaijan | 39 (1.6) | 490 (3.3) | 54 (1.6) | 461 (3.3) | 8 (0.6) | 432 (7.6) | 10.3 (0.07) |
| Malta | 39 (0.8) | 525 (2.2) | 48 (0.8) | 463 (2.3) | 13 (0.6) | 392 (4.6) | 10.1 (0.04) |
| Saudi Arabia | 39 (1.5) | 478 (3.4) | 53 (1.4) | 406 (5.1) | 8 (0.6) | 371 (9.8) | 10.2 (0.07) |
| Trinidad and Tobago | 38 (1.2) | 520 (3.5) | 49 (1.0) | 456 (4.0) | 13 (0.7) | 392 (4.6) | 10.0 (0.05) |
| Denmark | 38 (0.9) | 584 (1.7) | 54 (0.8) | 543 (1.9) | 8 (0.4) | 490 (4.4) | 10.1 (0.04) |
| Slovak Republic | 37 (0.9) | 567 (2.3) | 49 (0.9) | 525 (3.0) | 13 (0.6) | 488 (4.0) | 10.0 (0.04) |
| Netherlands | 37 (1.0) | 565 (2.4) | 48 (1.0) | 541 (2.1) | 15 (0.7) | 519 (3.3) | 10.0 (0.05) |
| Australia | 37 (0.9) | 568 (2.4) | 53 (0.8) | 515 (2.5) | 10 (0.6) | 451 (5.4) | 10.1 (0.04) |
| England | 37 (1.1) | 589 (2.8) | 53 (1.2) | 539 (3.0) | 10 (0.6) | 483 (6.0) | 10.0 (0.05) |
| Czech Republic | 36 (1.0) | 571 (2.9) | 51 (1.1) | 541 (2.2) | 13 (0.6) | 495 (3.8) | 9.9 (0.04) |
| Spain | 35 (1.0) | 542 (2.4) | 54 (1.0) | 503 (2.7) | 10 (0.5) | 471 (5.0) | 9.9 (0.03) |
| Northern Ireland | 35 (1.0) | 591 (3.1) | 55 (1.1) | 549 (2.8) | 10 (0.6) | 501 (4.7) | 10.0 (0.04) |
| Indonesia | 34 (1.5) | 457 (3.2) | 62 (1.3) | 423 (4.2) | 5 (0.5) | 368 (10.0) | 10.1 (0.06) |
| United Arab Emirates | 33 (0.6) | 493 (2.5) | 57 (0.6) | 422 (2.5) | 10 (0.3) | 365 (4.7) | 9.9 (0.03) |
| Lithuania | 33 (0.9) | 563 (2.1) | 54 (1.1) | 521 (2.1) | 13 (0.6) | 479 (3.9) | 9.8 (0.04) |
| Portugal | 32 (1.4) | 572 (2.7) | 60 (1.2) | 532 (2.7) | 8 (0.5) | 479 (4.9) | 9.9 (0.06) |
| Qatar | 30 (1.1) | 495 (4.0) | 59 (0.9) | 410 (3.6) | 11 (0.5) | 348 (5.3) | 9.7 (0.04) |
| Belgium (French) | 29 (1.0) | 536 (3.5) | 58 (0.9) | 503 (2.6) | 12 (0.8) | 452 (5.0) | 9.7 (0.04) |
| Oman | 29 (1.1) | 444 (3.4) | 58 (1.0) | 382 (3.1) | 13 (0.6) | 322 (4.4) | 9.7 (0.06) |
| Georgia | 28 (0.9) | 526 (2.9) | 56 (1.0) | 483 (3.5) | 16 (0.8) | 457 (5.1) | 9.6 (0.04) |
| Italy | 28 (0.8) | 568 (2.8) | 63 (0.8) | 537 (2.3) | 10 (0.6) | 505 (3.8) | 9.7 (0.03) |
| Russian Federation | 28 (0.8) | 601 (3.0) | 59 (0.8) | 564 (2.8) | 14 (0.6) | 526 (4.0) | 9.6 (0.04) |
| New Zealand | 27 (0.8) | 585 (2.9) | 61 (0.8) | 523 (2.2) | 13 (0.6) | 471 (4.2) | 9.6 (0.04) |
| France | 26 (0.7) | 554 (3.0) | 60 (0.8) | 518 (2.7) | 14 (0.7) | 469 (3.6) | 9.6 (0.04) |
| Singapore | 26 (0.7) | 607 (3.3) | 61 (0.6) | 565 (3.0) | 13 (0.6) | 504 (5.2) | 9.5 (0.03) |
| Colombia | 24 (1.0) | 488 (5.1) | 65 (1.1) | 444 (4.7) | 11 (0.8) | 415 (5.3) | 9.5 (0.05) |
| Chinese Taipei | 21 (0.8) | 585 (2.7) | 57 (0.8) | 554 (1.9) | 22 (0.9) | 520 (2.8) | 9.2 (0.04) |
| Hong Kong SAR | 20 (0.9) | 601 (2.4) | 62 (0.8) | 571 (2.6) | 18 (0.9) | 538 (3.3) | 9.2 (0.05) |
| Morocco | 17 (0.9) | 367 (5.0) | 64 (1.0) | 310 (3.9) | 19 (1.2) | 273 (7.0) | 9.1 (0.05) |
| International Avg. | 36 (0.2) | 547 (0.4) | 53 (0.1) | 502 (0.4) | 11 (0.1) | 456 (0.8) | |

Centerpoint of scale set at 10.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

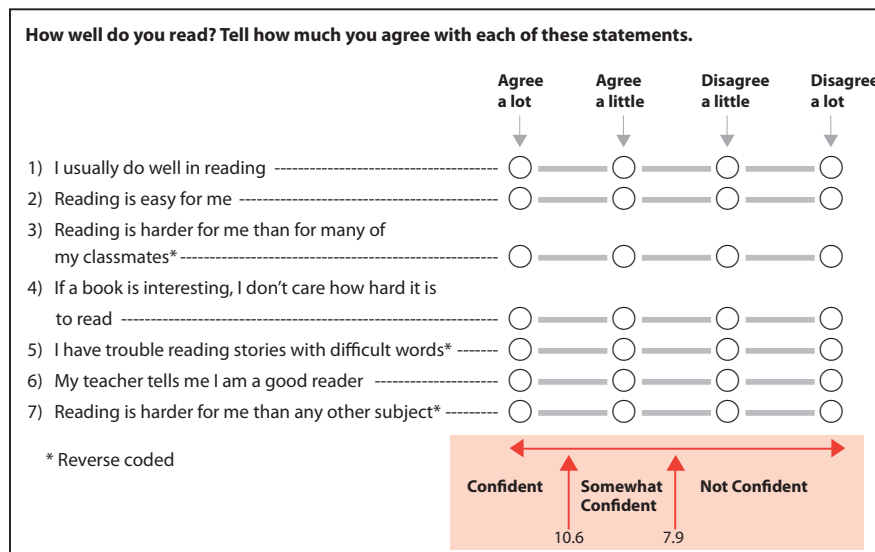
Exhibit 8.3: Students Confident in Reading (Continued)

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Confident | | Somewhat Confident | | Not Confident | | Average Scale Score |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Sixth Grade Participants | | | | | | | |
| Kuwait | 35 (1.2) | 479 (5.1) | 55 (1.2) | 407 (5.6) | 10 (0.6) | 366 (9.2) | 10.0 (0.05) |
| Botswana | 21 (1.0) | 490 (5.4) | 60 (0.9) | 414 (3.7) | 19 (0.8) | 361 (4.7) | 9.3 (0.05) |
| Honduras | 18 (1.0) | 494 (5.1) | 71 (1.0) | 444 (5.4) | 11 (0.6) | 422 (5.3) | 9.3 (0.04) |
| Morocco | 18 (0.9) | 472 (6.3) | 67 (1.0) | 420 (3.8) | 16 (1.4) | 389 (8.5) | 9.2 (0.05) |
| Benchmarking Participants[◊] | | | | | | | |
| Alberta, Canada | 44 (1.2) | 578 (2.7) | 48 (0.9) | 532 (3.1) | 8 (0.6) | 490 (6.1) | 10.4 (0.05) |
| Florida, US | 43 (1.2) | 601 (3.1) | 47 (1.2) | 554 (3.2) | 11 (0.7) | 520 (3.8) | 10.3 (0.05) |
| Ontario, Canada | 40 (1.4) | 583 (3.0) | 52 (1.4) | 539 (2.7) | 8 (0.6) | 493 (5.7) | 10.2 (0.06) |
| Dubai, UAE | 39 (0.9) | 523 (2.3) | 53 (0.8) | 460 (2.0) | 8 (0.5) | 390 (6.4) | 10.2 (0.04) |
| Andalusia, Spain | 39 (1.1) | 539 (2.4) | 52 (1.0) | 506 (2.5) | 9 (0.5) | 467 (5.3) | 10.1 (0.04) |
| Quebec, Canada | 35 (1.2) | 565 (2.5) | 55 (1.1) | 529 (2.7) | 10 (0.6) | 494 (4.9) | 10.0 (0.04) |
| Maltese - Malta | 32 (0.8) | 496 (2.0) | 50 (1.0) | 451 (2.3) | 18 (0.7) | 409 (3.6) | 9.7 (0.04) |
| Abu Dhabi, UAE | 32 (1.3) | 482 (5.0) | 57 (1.2) | 409 (4.8) | 11 (0.7) | 354 (7.5) | 9.9 (0.06) |
| Eng/Afr (5) - RSA | 26 (1.3) | 502 (9.6) | 58 (1.1) | 412 (7.0) | 16 (1.0) | 365 (10.9) | 9.5 (0.06) |

[◊] Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

| Country | Confident | | Somewhat Confident | | Not Confident | | Average Scale Score |
|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Colombia | 24 (1.0) | 611 (3.7) | 65 (1.1) | 573 (4.0) | 11 (0.7) | 547 (4.3) | 9.5 (0.05) |
| South Africa | 18 (0.7) | 548 (4.9) | 64 (0.7) | 462 (3.8) | 18 (0.6) | 419 (4.3) | 9.1 (0.04) |
| Botswana | 11 (0.8) | 554 (7.3) | 59 (1.0) | 466 (3.2) | 30 (1.2) | 431 (2.9) | 8.7 (0.05) |



achievement than those who only somewhat liked reading; and in particular, those students who reported not liking to read had the lowest average reading achievement.

Students Motivated to Read

Because spending time reading is so fundamental to developing reading skills, considerable research has been done on increasing students' motivation to read, in particular focusing on intrinsic and extrinsic motivation. Some students have the disposition to read simply because they like it, but it also is possible for parents and teachers to provide extrinsic motivation in the form of external recognition, rewards, or incentives.

Exhibit 8.2 presents the results for the PIRLS 2011 Students Motivated to Read scale. The scale itself addresses six different motivational facets of reading:

- ◆ I like to read things that make me think;
- ◆ It is important to be a good reader;
- ◆ My parents like it when I read;
- ◆ I learn a lot from reading;
- ◆ I need to read well for my future; and
- ◆ I like it when a book helps me imagine other worlds.

Students “agreeing a lot” with three of the statements and “agreeing a little” with the other three, on average, were considered to be **Motivated** readers. In comparison, students **Not Motivated** to read “disagreed a little” with three of the statements and “agreed a little” with the other three, on average.

Interestingly, on average, internationally, fourth grade students reported greater motivation to read than liking of reading. On average, three-fourths of the students reported being **Motivated** readers whereas only about one-fourth reported liking to read (Exhibit 8.1). Apparently, fourth grade students may understand the value of reading as way of learning, even though they do not choose to read as a leisure activity. There was some variation across countries, but very few fourth grade students, on average, reported a lack of motivation (5%). These students had substantially lower average reading achievement than their more highly motivated counterparts. The overall patterns observed at the fourth grade held for the sixth grade, the benchmarking, and prePIRLS participants.

Students Confident in Reading

Research, including the results from PIRLS assessments, has shown that children with greater self-efficacy or high self-esteem about themselves as readers typically are better readers. Because motivation to learn to read includes feeling that you can succeed, it is important for students to have strong self-concept about their reading ability in order to continue building on current levels of learning to move to higher plateaus (McLaughlin et al., 2005). Because of the growing importance of students' reading self-concept, PIRLS 2011 expanded the scale to cover both intrinsic and extrinsic aspects of reading confidence.

Exhibit 8.3 presents the results for the PIRLS 2011 Students Confident in Reading scale, which includes such statements as “Reading is harder for me than for many of my classmates” (reverse coded) and “My teacher tells me I am a good reader” (see second page of exhibit for all seven statements). **Confident** students “agreed a lot” with four of the seven statements and “agreed a little” with the other three, on average. Students in the **Not Confident** category “disagreed a little” with four of the statements and “agreed a little” with the other three, on average.

Internationally, on average, 36 percent of the fourth grade students expressed confidence in their reading. Average reading achievement was highest for the **Confident** fourth grade students and lowest (by 91 points) for the students lacking confidence (11% across countries). It is clear that students have a sense of themselves as readers by the fourth grade, including knowing when they are struggling. For example, higher than average percentages of students expressed a lack of confidence in their reading in the prePIRLS countries of South Africa (18%) and Botswana (30%).

Instructional Time and Approaches

Instructional Time Spent on Language and Reading

It is difficult to examine the effect of instructional time on student achievement, because a wide variety of factors influence the productivity of instruction hours—most importantly, the quality of the curriculum and instructional approaches (and all of the variables influencing them). In addition, the relationship between instructional time and student achievement is highly dependent on the effectiveness of the educational system. If an education system essentially is ineffective, increasing the amount of instruction time will have diminishing returns. Also, most countries implement levels of instructional

time across their systems so that any variation is unintended and rarely related to achievement.

Despite the difficulties in studying its effects, instructional time remains a crucial resource in considering students' opportunity to learn. If everything else about schooling was equal and of high quality, more instructional time should result in increased student learning. For example, a recent study published by the London School of Economics used data from PISA 2006 and from 10- and 13-year-olds in Israel to compare achievement estimates for the same students across curriculum subjects, and found that instructional time has a positive and significant effect on achievement (Lavy, 2010).

Exhibit 8.4 presents principals' and teachers' reports about the instructional hours per year spent on language and reading instruction. Because reading is the focus, countries in the exhibit are organized according to the last column in the table—instructional hours per year on reading across the curriculum, including the time spent in language class.

The results for the time spent on reading instruction were based on a series of calculations. As explained on the second page of the exhibit, principals provided the number of school days per year and the number of instructional hours per day. This information was combined to show the yearly total number of instructional hours in each country shown in the first column of the exhibit. There was substantial variation across countries, but the fourth grade students in the PIRLS 2011 countries received about 900 hours per year of instruction, on average.

Teachers reported the weekly amount of instruction in language, reading as part of language instruction, and reading across the curriculum. This information was combined with the data provided by principals to estimate yearly amounts of instructional time for each PIRLS 2011 participant for the following:

- ◆ Language instruction;
- ◆ Time spent on reading as part of language instruction; and
- ◆ Time spent on reading, including direct instruction and reading across the curriculum.

It should be emphasized that there was considerable variation across countries including the fourth grade, sixth grade, benchmarking, and prePIRLS participants; countries spend different amounts of time on total schooling, and allocate different amounts of the total time to language and reading instruction.

As an example of the many factors influencing productivity, the United States reported spending 246 hours a year on reading instruction, on average, compared to the 65 hours reported by Chinese Taipei, and the two countries had similar average reading achievement. Finally, it should be understood that providing time for instruction is a necessary but not sufficient condition for student learning. The time allocated for instruction is a resource that needs to be used effectively, and efficiently.

Collaborate to Improve Teaching

Part of creating a school learning environment focused on academic success involves a staff that collaborates on curricular activities. For example, a study including a comprehensive theoretical review and a meta-analysis of studies about professional communities indicated a small but positive effect of professional communities on student achievement (Lomos, Roelande, & Bosker, 2011). Because teacher collaboration with colleagues is important in building a professional community, PIRLS 2011 included the Collaborate to Improve Teaching scale. Although the idea of teacher collegiality and collaboration can involve a variety of theoretical perspectives and terms, the PIRLS 2011 scale was designed to focus on the idea of collaboration for the purpose of improving teaching.

Exhibit 8.5 shows the results for the PIRLS 2011 Collaborate to Improve Teaching scale, based on how often teachers interacted with other teachers regarding each of five areas:

- ◆ Discuss how to teach a particular topic;
- ◆ Collaborate in planning and preparing instructional materials;
- ◆ Share what I have learned about my teaching experiences;
- ◆ Visit another classroom to learn more about teaching; and
- ◆ Work together to try out new ideas.

Students were scored according to their teachers responses, with **Very Collaborative** teachers having interactions with other teachers at least “one to three times per week” in each of three of the five areas and “two or three times per month” in each of the other two, on average.

In general, most reading teachers of fourth grade students reported a high degree of collaboration with other teachers with the goal of improving teaching and learning. Internationally, on average, about one-third (35%) of the fourth grade students had **Very Collaborative** teachers. Another 54 percent

Reported by Principals and Teachers

| Country | Instructional Hours per Year | | | |
|-----------------------|------------------------------|----------------------|---|--|
| | Total | Language Instruction | Time Spent on Reading as Part of Language Instruction | Reading Across the Curriculum, Including Time Spent on Reading Instruction |
| United States | 1077 (7.9) | r 275 (8.5) | s 131 (4.9) | r 246 (9.5) |
| Slovak Republic | 780 (8.8) | 260 (3.2) | 85 (1.8) | 239 (10.3) |
| Portugal | r 939 (13.3) | r 281 (5.4) | r 82 (2.6) | s 235 (17.2) |
| New Zealand | 932 (4.9) | r 349 (8.3) | r 131 (3.9) | r 220 (6.7) |
| Hungary | 760 (12.2) | 293 (7.5) | 103 (3.7) | 206 (8.7) |
| Australia | 1008 (6.9) | s 356 (10.4) | s 119 (5.1) | s 197 (11.0) |
| Trinidad and Tobago | r 1024 (17.5) | s 295 (18.8) | s 85 (6.6) | s 196 (16.6) |
| Bulgaria | 673 (18.3) | 186 (4.6) | 56 (1.9) | 189 (10.8) |
| Canada | 957 (4.5) | r 284 (6.1) | r 101 (3.0) | r 186 (8.6) |
| Norway | 817 (10.7) | 244 (7.6) | r 77 (3.3) | r 178 (11.7) |
| Romania | 796 (17.9) | 212 (7.7) | 65 (2.8) | 161 (9.8) |
| Ireland | 854 (0.0) | 175 (3.4) | 56 (1.5) | 159 (9.3) |
| Sweden | s 849 (11.4) | s 223 (11.0) | s 75 (3.5) | s 156 (13.1) |
| Northern Ireland | r 970 (11.0) | s 274 (7.7) | s 80 (3.7) | s 155 (9.9) |
| Spain | r 888 (10.3) | r 197 (5.2) | r 60 (2.1) | r 152 (10.2) |
| Saudi Arabia | r 977 (19.4) | r 232 (12.4) | s 86 (6.1) | r 150 (9.4) |
| Lithuania | 649 (9.0) | 204 (3.8) | 51 (1.5) | 147 (8.4) |
| Czech Republic | 782 (8.2) | 283 (9.3) | 72 (3.5) | 146 (9.7) |
| Qatar | 1068 (9.1) | r 199 (10.5) | s 62 (4.6) | r 146 (11.3) |
| Poland | r 764 (13.5) | r 208 (4.5) | r 61 (2.2) | r 145 (9.8) |
| Indonesia | r 1297 (39.2) | r 206 (8.1) | s 68 (3.6) | s 145 (8.5) |
| Iran, Islamic Rep. of | 727 (11.2) | 186 (6.0) | 62 (2.3) | r 145 (15.6) |
| Oman | s 999 (17.4) | s 176 (4.9) | x x | s 144 (9.5) |
| Italy | 1085 (12.6) | 274 (7.2) | r 63 (2.2) | r 137 (6.6) |
| Russian Federation | r 660 (8.0) | 200 (2.4) | 58 (1.3) | 130 (3.8) |
| Azerbaijan | 804 (27.7) | 194 (9.0) | r 62 (3.6) | r 128 (6.0) |
| Singapore | 1012 (0.0) | 242 (5.5) | 56 (1.8) | 127 (6.0) |
| Georgia | r 748 (18.7) | r 162 (5.5) | r 53 (2.1) | r 123 (8.5) |
| England | r 987 (7.7) | r 277 (7.6) | r 77 (4.0) | r 123 (9.5) |
| Belgium (French) | r 938 (8.7) | s 342 (9.7) | s 88 (4.0) | s 120 (7.8) |
| Slovenia | 684 (0.0) | 193 (6.2) | 46 (1.7) | 118 (7.1) |
| Colombia | r 1063 (18.3) | r 189 (7.9) | r 62 (3.1) | r 117 (7.4) |
| Croatia | 776 (19.4) | 172 (4.1) | 46 (1.5) | 116 (6.8) |
| Germany | r 863 (11.2) | r 245 (8.5) | r 60 (2.7) | s 111 (6.5) |
| United Arab Emirates | r 1025 (8.5) | s 194 (7.3) | s 55 (2.6) | s 111 (5.4) |
| Denmark | 860 (8.1) | 219 (3.7) | 63 (1.8) | 108 (5.2) |
| Malta | r 891 (0.2) | s 181 (0.3) | s 37 (0.1) | s 104 (0.3) |
| Israel | s 1075 (13.6) | s 234 (7.9) | s 67 (3.6) | s 103 (10.7) |
| Hong Kong SAR | r 1060 (11.4) | r 207 (5.6) | r 73 (3.1) | r 102 (6.6) |
| Finland | 779 (9.8) | 188 (5.3) | 55 (2.4) | 99 (5.5) |
| Morocco | r 1040 (25.3) | s 207 (12.3) | s 67 (4.9) | s 99 (7.4) |
| Austria | 808 (6.9) | 263 (4.9) | 64 (1.8) | 97 (4.7) |
| Chinese Taipei | r 989 (13.4) | 192 (5.2) | 41 (2.0) | 65 (2.8) |
| France | x x | x x | x x | x x |
| Netherlands | s 1078 (5.0) | x x | x x | x x |
| International Avg. | 905 (2.1) | 232 (1.2) | 70 (0.5) | 146 (1.4) |

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

An "x" indicates data are available for less than 50% of students.

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Instructional Hours per Year | | | |
|--|------------------------------|----------------------|---|--|
| | Total | Language Instruction | Time Spent on Reading as Part of Language Instruction | Reading Across the Curriculum, Including Time Spent on Reading Instruction |
| Sixth Grade Participants | | | | |
| Honduras | 1024 (16.9) | r 228 (8.3) | r 62 (3.1) | r 157 (11.6) |
| Botswana | s 1143 (23.2) | s 173 (8.6) | s 40 (2.3) | s 98 (10.2) |
| Kuwait | x x | x x | x x | x x |
| Morocco | r 1043 (24.7) | s 225 (12.6) | x x | x x |
| Benchmarking Participants^o | | | | |
| Florida, US | r 1068 (19.6) | s 297 (20.7) | s 173 (14.2) | s 248 (17.4) |
| Ontario, Canada | 979 (7.2) | r 281 (12.5) | r 103 (5.8) | r 215 (17.4) |
| Alberta, Canada | 1011 (8.4) | 280 (9.1) | 98 (4.3) | r 193 (10.4) |
| Andalusia, Spain | 842 (9.4) | r 220 (4.9) | r 78 (3.0) | r 168 (10.5) |
| Eng/Afr (5) - RSA | r 1129 (14.7) | s 169 (18.0) | x x | s 131 (16.5) |
| Quebec, Canada | 916 (5.1) | 301 (7.0) | 99 (3.6) | 127 (4.4) |
| Abu Dhabi, UAE | r 1033 (18.1) | s 196 (12.7) | s 55 (4.8) | s 115 (9.8) |
| Dubai, UAE | r 993 (0.7) | s 183 (6.7) | s 48 (2.3) | s 101 (4.8) |
| Maltese - Malta | r 891 (0.3) | x x | x x | x x |

SOURCE: IEA's Progress in International Reading Literacy Study - PIRLS 2011

^o Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

| Country | Instructional Hours per Year | | | |
|--------------|------------------------------|----------------------|---|--|
| | Total | Language Instruction | Time Spent on Reading as Part of Language Instruction | Reading Across the Curriculum, Including Time Spent on Reading Instruction |
| South Africa | r 1184 (15.1) | s 181 (8.4) | x x | s 128 (10.7) |
| Botswana | s 1042 (20.6) | s 191 (9.0) | s 46 (3.1) | s 121 (8.7) |
| Colombia | r 1063 (18.2) | r 189 (7.9) | r 62 (3.1) | r 117 (7.4) |

| | | | | |
|--|---|--|----------|--|
| Total Instructional Hours per Year | = | Principal Reports of School Days per Year | X | Principal Reports of Instructional Hours per Day |
| Language Instructional Hours per Year | = | $\frac{\text{Teacher Reports of Weekly Language Instructional Hours}}{\text{Principal Reports of School Days per Week}}$ | X | Principal Reports of School Days per Year |

Time spent on reading as part of language instruction and hours spent on reading across the curriculum are also based on teacher reports of weekly instruction.

Exhibit 8.5: Collaborate to Improve Teaching

Reported by Teachers

Students were scored according to their teachers' responses to how often they interacted with other teachers in each of five teaching areas on the *Collaborate to Improve Teaching* scale. Students with **Very Collaborative** teachers had a score on the scale of at least 11.0, which corresponds to their teachers having interactions with other teachers at least "one to three times per week" in each of three of the five areas and "two or three times per month" in each of the other two, on average. Students with **Somewhat Collaborative** teachers had a score no higher than 7.2, which corresponds to their teachers interacting with other teachers "never or almost never" in each of three of the five areas and "two or three times per month" in each of the other two, on average. All other students had **Collaborative** teachers.

| Country | Very Collaborative | | Collaborative | | Somewhat Collaborative | | Average Scale Score |
|-----------------------|---------------------|---------------------|---------------------|---------------------|------------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Slovenia | 73 (3.5) | 530 (2.4) | 25 (3.4) | 529 (4.0) | 2 (0.8) | ~ ~ | 11.8 (0.14) |
| Romania | 68 (3.8) | 498 (5.0) | 31 (3.9) | 505 (6.7) | 1 (0.6) | ~ ~ | 11.4 (0.12) |
| Israel | 61 (3.8) | 548 (4.0) | 39 (3.8) | 534 (5.7) | 0 (0.0) | ~ ~ | 11.3 (0.13) |
| Slovak Republic | 50 (3.3) | 535 (3.9) | 47 (3.4) | 537 (3.5) | 2 (0.9) | ~ ~ | 10.7 (0.10) |
| Qatar | 50 (4.7) | 424 (6.7) | 40 (4.4) | 427 (8.3) | 10 (2.6) | 415 (20.3) | 10.4 (0.18) |
| Azerbaijan | 48 (3.9) | 462 (4.7) | 47 (3.9) | 467 (4.6) | 5 (1.9) | 434 (29.5) | 10.6 (0.13) |
| United States | 48 (2.9) | 556 (2.4) | 42 (2.7) | 556 (2.9) | 10 (1.5) | 560 (5.5) | 10.5 (0.11) |
| United Arab Emirates | 48 (2.7) | 451 (4.2) | 48 (2.7) | 427 (4.3) | 4 (0.8) | 434 (11.1) | 10.7 (0.08) |
| England | 48 (4.5) | 554 (4.3) | 44 (4.4) | 548 (4.6) | 8 (2.6) | 548 (11.8) | 10.6 (0.19) |
| Indonesia | 47 (4.4) | 428 (5.5) | 52 (4.5) | 428 (6.6) | 1 (0.7) | ~ ~ | 11.0 (0.13) |
| Oman | 47 (3.1) | 386 (4.3) | 53 (3.1) | 396 (3.5) | 0 (0.2) | ~ ~ | 10.8 (0.07) |
| Portugal | 45 (4.7) | 540 (4.3) | 50 (4.8) | 542 (3.8) | 5 (1.4) | 540 (6.2) | 10.6 (0.17) |
| Australia | 44 (3.7) | 532 (4.5) | 44 (3.9) | 532 (4.6) | 12 (2.6) | 526 (7.4) | 10.3 (0.15) |
| Hungary | 43 (4.0) | 538 (5.2) | 55 (3.9) | 540 (4.3) | 2 (0.9) | ~ ~ | 10.5 (0.12) |
| New Zealand | 41 (3.0) | 528 (3.7) | 53 (3.2) | 540 (3.6) | 6 (1.5) | 514 (16.7) | 10.3 (0.10) |
| Croatia | 41 (3.8) | 558 (3.2) | 57 (3.8) | 551 (2.3) | 2 (0.9) | ~ ~ | 10.5 (0.11) |
| Colombia | 40 (4.3) | 449 (6.8) | 50 (4.4) | 445 (6.0) | 10 (2.6) | 457 (14.3) | 10.1 (0.19) |
| Spain | 39 (3.8) | 518 (4.5) | 52 (3.7) | 511 (2.9) | 9 (1.9) | 506 (4.1) | 10.0 (0.14) |
| Lithuania | 38 (3.3) | 530 (3.4) | 57 (3.3) | 527 (3.2) | 5 (1.5) | 528 (7.1) | 10.4 (0.11) |
| Sweden | 37 (4.6) | 541 (3.7) | 52 (4.4) | 540 (3.1) | 12 (2.9) | 556 (6.1) | 10.0 (0.22) |
| Norway | 37 (3.8) | 509 (3.2) | 54 (4.4) | 506 (2.5) | 10 (2.8) | 498 (8.9) | 10.1 (0.15) |
| Georgia | 35 (3.3) | 489 (5.4) | 61 (3.4) | 489 (3.6) | 3 (1.0) | 456 (32.0) | 10.3 (0.11) |
| Poland | 32 (3.0) | 521 (3.7) | 66 (3.1) | 529 (2.6) | 2 (0.9) | ~ ~ | 10.3 (0.08) |
| Russian Federation | 31 (3.8) | 566 (5.3) | 67 (4.0) | 569 (2.9) | 1 (0.8) | ~ ~ | 10.3 (0.08) |
| Iran, Islamic Rep. of | 31 (3.0) | 451 (6.2) | 60 (2.9) | 458 (3.8) | 9 (2.0) | 472 (11.1) | 10.0 (0.14) |
| Bulgaria | 30 (3.7) | 543 (6.4) | 63 (3.6) | 528 (5.1) | 8 (1.9) | 517 (9.6) | 10.0 (0.12) |
| Trinidad and Tobago | 30 (3.8) | 467 (8.3) | 53 (4.2) | 469 (5.3) | 18 (3.0) | 482 (9.9) | 9.6 (0.17) |
| Singapore | 29 (2.0) | 569 (6.2) | 64 (2.4) | 567 (4.3) | 8 (1.6) | 563 (10.5) | 9.9 (0.08) |
| Italy | 29 (3.2) | 538 (5.1) | 57 (3.0) | 544 (2.7) | 14 (2.1) | 541 (7.0) | 9.6 (0.14) |
| Belgium (French) | 29 (4.1) | 504 (5.6) | 55 (4.2) | 506 (4.0) | 17 (2.9) | 519 (4.3) | 9.6 (0.17) |
| Finland | 27 (2.8) | 571 (3.9) | 58 (2.7) | 567 (2.4) | 15 (2.0) | 566 (3.4) | 9.6 (0.13) |
| Canada | 24 (2.1) | 546 (2.7) | 58 (2.3) | 549 (2.7) | 17 (1.7) | 550 (3.7) | 9.5 (0.10) |
| Germany | 24 (2.6) | 539 (3.8) | 59 (3.4) | 540 (2.9) | 17 (2.5) | 547 (4.8) | 9.5 (0.13) |
| Netherlands | 24 (3.4) | 542 (4.5) | 65 (3.4) | 548 (2.4) | 11 (2.1) | 543 (4.0) | 9.6 (0.13) |
| Hong Kong SAR | 23 (4.0) | 566 (5.6) | 66 (3.9) | 570 (3.3) | 11 (2.4) | 579 (6.2) | 9.5 (0.15) |
| Chinese Taipei | 23 (3.5) | 558 (3.8) | 57 (3.9) | 553 (2.4) | 20 (3.6) | 547 (4.6) | 9.4 (0.18) |
| Austria | 21 (3.2) | 525 (4.1) | 54 (3.8) | 529 (2.2) | 25 (3.0) | 534 (3.6) | 9.1 (0.15) |
| Northern Ireland | 21 (4.0) | 562 (6.6) | 55 (4.9) | 559 (3.6) | 24 (3.7) | 560 (6.5) | 9.3 (0.22) |
| France | 20 (3.0) | 515 (5.6) | 56 (3.4) | 524 (3.3) | 24 (2.8) | 515 (4.7) | 9.0 (0.15) |
| Denmark | 18 (2.5) | 557 (3.8) | 66 (3.2) | 554 (2.2) | 16 (2.4) | 551 (6.1) | 9.2 (0.11) |
| Morocco | 17 (2.5) | 324 (12.2) | 41 (3.9) | 311 (6.2) | 41 (3.9) | 308 (6.5) | 8.2 (0.21) |
| Saudi Arabia | 17 (3.2) | 440 (10.5) | 72 (3.6) | 429 (5.0) | 11 (2.6) | 427 (16.0) | 9.4 (0.13) |
| Malta | 16 (0.1) | 485 (3.9) | 51 (0.1) | 481 (1.9) | 34 (0.1) | 469 (2.8) | 8.5 (0.01) |
| Czech Republic | 16 (2.7) | 535 (4.0) | 72 (3.6) | 548 (2.6) | 13 (3.1) | 543 (4.9) | 9.3 (0.15) |
| Ireland | 16 (2.7) | 556 (7.0) | 60 (3.4) | 547 (2.8) | 25 (3.1) | 562 (4.3) | 8.8 (0.15) |
| International Avg. | 35 (0.5) | 513 (0.8) | 54 (0.5) | 512 (0.6) | 11 (0.3) | 510 (1.9) | |

Centerpoint of scale set at 10.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

A tilde (~) indicates insufficient data to report achievement.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

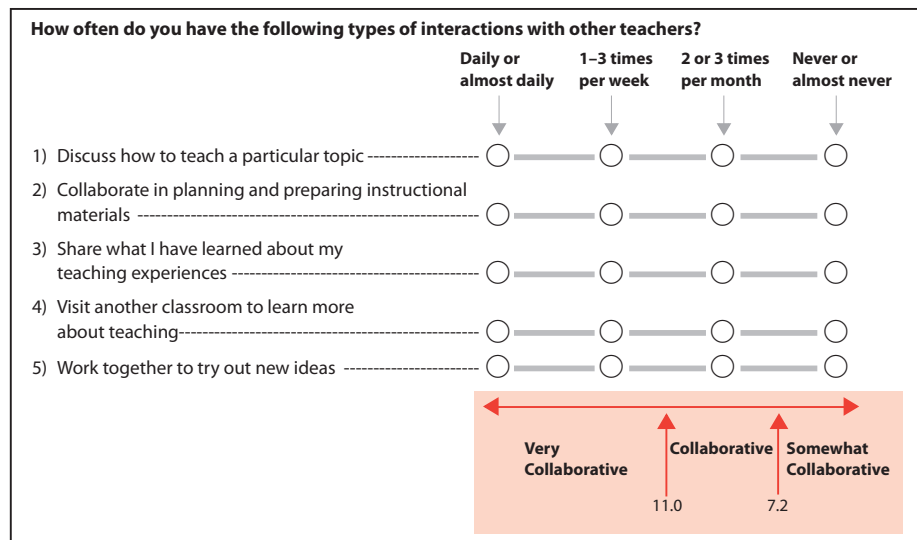
Exhibit 8.5: Collaborate to Improve Teaching (Continued)

| Country | Very Collaborative | | Collaborative | | Somewhat Collaborative | | Average Scale Score |
|--|---------------------|---------------------|---------------------|---------------------|------------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Sixth Grade Participants | | | | | | | |
| Kuwait | 65 (4.6) | 421 (7.3) | 34 (4.5) | 411 (15.1) | 1 (0.0) | ~ ~ | 11.4 (0.17) |
| Botswana | 50 (4.0) | 411 (4.9) | 44 (4.2) | 424 (6.9) | 5 (1.8) | 475 (36.8) | 10.8 (0.18) |
| Honduras | 35 (4.8) | 441 (13.3) | 51 (4.6) | 453 (4.8) | 14 (2.4) | 458 (8.3) | 9.8 (0.23) |
| Morocco | 22 (3.9) | 437 (15.0) | 38 (3.4) | 421 (8.0) | 40 (4.7) | 412 (8.5) | 8.4 (0.32) |
| Benchmarking Participants^o | | | | | | | |
| Dubai, UAE | 59 (4.5) | 488 (5.6) | 37 (4.4) | 465 (9.3) | 4 (0.8) | 445 (10.9) | 10.9 (0.11) |
| Florida, US | 53 (4.2) | 572 (5.7) | 41 (4.4) | 567 (4.7) | 6 (2.4) | 581 (10.1) | 10.7 (0.18) |
| Abu Dhabi, UAE | 47 (4.7) | 429 (7.5) | 49 (4.5) | 420 (8.3) | 4 (1.6) | 433 (17.8) | 10.7 (0.17) |
| Eng/Afr (5) - RSA | 46 (6.2) | 431 (15.0) | 41 (6.5) | 441 (14.1) | 12 (4.1) | 380 (18.7) | 10.1 (0.28) |
| Andalusia, Spain | 39 (3.7) | 515 (4.5) | 52 (4.2) | 517 (3.8) | 9 (2.3) | 505 (4.7) | 10.2 (0.15) |
| Alberta, Canada | 36 (3.7) | 548 (5.8) | 51 (3.8) | 549 (3.6) | 12 (2.8) | 544 (9.8) | 10.0 (0.17) |
| Ontario, Canada | 26 (3.8) | 550 (4.8) | 59 (4.5) | 551 (3.8) | 15 (3.0) | 552 (6.6) | 9.7 (0.18) |
| Quebec, Canada | 21 (4.1) | 534 (5.1) | 62 (4.6) | 537 (2.9) | 17 (3.1) | 542 (5.7) | 9.3 (0.17) |
| Maltese - Malta | 14 (0.1) | 447 (2.8) | 47 (0.2) | 458 (2.6) | 38 (0.2) | 464 (2.3) | 8.1 (0.01) |

^o Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Very Collaborative | | Collaborative | | Somewhat Collaborative | | Average Scale Score |
|--------------|---------------------|---------------------|---------------------|---------------------|------------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| South Africa | 54 (3.7) | 453 (6.8) | 41 (4.1) | 466 (7.5) | 5 (1.4) | 433 (16.9) | 10.9 (0.12) |
| Botswana | 50 (4.2) | 469 (5.1) | 40 (4.1) | 455 (6.4) | 10 (2.6) | 469 (16.4) | 10.9 (0.21) |
| Colombia | 40 (4.3) | 577 (6.2) | 50 (4.4) | 576 (4.5) | 10 (2.6) | 575 (11.9) | 10.1 (0.19) |



of students, on average, had teachers that reported being **Collaborative** (e.g., interacting two or three times a month for all areas). Few fourth grade students (11%, on average) had reading teachers that were only **Somewhat Collaborative** (e.g., never or almost never interacting in three of the five areas).

Looking across countries at the fourth grade, sixth grade, benchmarking, and prePIRLS participants, it is clear that there are differences from country to country, but primarily between the percentages of students with **Very Collaborative** and **Collaborative** teachers, although they had very similar achievement, on average (513 and 512, respectively). According to PIRLS 2011 reports from reading teachers, almost all students have the benefit of teachers who collaborate with other teachers to improve instruction.

Instruction to Engage Students in Learning

Historically, educational studies, including PIRLS, have struggled to link student achievement to instructional activities. Typically, teachers are asked to report how frequently they use various instructional activities and strategies, and such information can be very useful. However, in light of the growing body of evidence about the complexities of teaching and learning, researchers are beginning to understand these lists of activities cannot be used as proxies for the characteristics of good teaching.

To help build a better bridge between curriculum and instruction, PIRLS 2011 collected information about the concept of student content engagement as described by McLaughlin et al. (2005). According to this work, supported by the US National Center for Educational Statistics, student content engagement focuses on the importance of the activity that brings the student and the subject matter content together. Engagement refers to the cognitive interaction between the student and instructional content, and may take the form of listening to the teacher, reading aloud, or providing an explanation of a character's motivation. It is the student's in-the-moment cognitive interaction with instructional content.

To measure aspects of student content engagement, PIRLS 2011 developed both a teacher scale, called the Engaging Students in Learning scale, and a student scale, called the Engaged in Reading Lessons scale.

Exhibit 8.6 presents the results for the Engaging Students in Learning scale. The scale contains six items related to teachers' instructional practices intended to interest students and reinforce learning:

- ◆ Summarizing the lesson's learning goals;
- ◆ Relating the lesson to students' daily lives;

- ◆ Questioning to elicit reasons and explanations;
- ◆ Encouraging students to show improvement;
- ◆ Praising students for good effort; and
- ◆ Bringing interesting things to class.

Students were categorized according to their teachers' responses, with **Most Lessons** corresponding to teachers who used three of the six practices in “every or almost every lesson” and the other three in “about half the lessons,” on average.

Many fourth grade students, 71 percent on average, internationally, had reading teachers that made efforts to engage them in instruction by using a variety of strategies in **Most Lessons**; essentially, the rest had teachers that used engaging instructional practices in **About Half the Lessons** (with exceptions in a few countries). Across the fourth grade, sixth grade, benchmarking, and prePIRLS participants, students often had slightly higher average reading achievement if their teachers used engaging instruction in **Most Lessons** rather than **About Half the Lessons**.

Exhibit 8.7 presents the results for the PIRLS 2011 Engaged in Reading Lessons scale that looks at engagement from the student perspective. This scale asks how much students agree with the following seven statements:

- ◆ I like what I read about in school;
- ◆ My teacher gives me interesting things to read;
- ◆ I know what my teacher expects me to do;
- ◆ I think of things not related to the lesson (reverse coded);
- ◆ My teacher is easy to understand;
- ◆ I am interested in what my teacher says; and
- ◆ My teacher gives me interesting things to do.

Students in the **Engaged** category “agreed a lot” with four of the statements and “agreed a little” with the other three, on average, whereas students in the **Not Engaged** category “agreed a little” with three statements and “disagreed a little” with the other four, on average. All other students were considered **Somewhat Engaged**.

Internationally, on average, 42 percent of the fourth grade students reported being **Engaged** during their reading lessons, another 50 percent

Exhibit 8.6: Instruction to Engage Students in Learning

Reported by Teachers

Students were scored according to their teachers' responses to how often they used each of six instructional practices on the *Engaging Students in Learning* scale. Students with teachers who used engagement practices in **Most Lessons** had a score on the scale of at least 9.1, which corresponds to their teachers using three of the six practices "every or almost every lesson" and using the other three in "about half the lessons," on average. Students with teachers who used engagement practices in **Some Lessons** had a score no higher than 5.9, which corresponds to their teachers using three of the six practices in "some lessons" and using the other three in "about half the lessons," on average. All other students had teachers who used engagement practices in **About Half the Lessons**.

| Country | Most Lessons | | About Half the Lessons | | Some Lessons | | Average Scale Score |
|-----------------------|---------------------|---------------------|------------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Romania | 94 (1.8) | 501 (4.4) | 6 (1.5) | 496 (17.4) | 1 (0.0) | ~ ~ | 11.4 (0.15) |
| Lithuania | 93 (1.6) | 528 (2.1) | 7 (1.6) | 529 (8.7) | 0 (0.0) | ~ ~ | 11.1 (0.11) |
| England | 91 (2.2) | 551 (3.0) | 9 (2.2) | 548 (11.5) | 0 (0.2) | ~ ~ | 10.5 (0.14) |
| Bulgaria | 90 (2.3) | 533 (4.4) | 10 (2.3) | 523 (14.6) | 0 (0.0) | ~ ~ | 11.0 (0.14) |
| Hungary | 90 (2.0) | 538 (3.3) | 10 (2.0) | 546 (8.6) | 0 (0.0) | ~ ~ | 10.8 (0.12) |
| Portugal | 89 (2.1) | 541 (2.9) | 10 (2.1) | 539 (6.5) | 0 (0.0) | ~ ~ | 10.9 (0.13) |
| Trinidad and Tobago | 89 (2.4) | 474 (4.2) | 10 (2.3) | 445 (10.5) | 1 (0.0) | ~ ~ | 10.8 (0.14) |
| United States | 88 (1.6) | 556 (1.7) | 11 (1.5) | 560 (6.6) | 0 (0.3) | ~ ~ | 10.8 (0.08) |
| Croatia | 87 (2.2) | 554 (1.9) | 12 (2.2) | 548 (5.4) | 0 (0.2) | ~ ~ | 10.5 (0.10) |
| Israel | 86 (3.2) | 543 (3.7) | 14 (3.2) | 537 (10.1) | 0 (0.0) | ~ ~ | 10.9 (0.17) |
| Indonesia | 85 (3.3) | 432 (4.2) | 15 (3.3) | 411 (11.2) | 0 (0.0) | ~ ~ | 10.9 (0.19) |
| Qatar | 84 (3.1) | 423 (4.0) | 16 (3.1) | 428 (16.0) | 0 (0.0) | ~ ~ | 10.9 (0.15) |
| Slovenia | 84 (2.8) | 530 (2.0) | 16 (2.8) | 530 (6.1) | 0 (0.0) | ~ ~ | 10.5 (0.13) |
| Slovak Republic | 83 (2.6) | 535 (3.1) | 16 (2.6) | 534 (5.7) | 0 (0.3) | ~ ~ | 10.5 (0.12) |
| United Arab Emirates | 83 (1.6) | 440 (2.8) | 16 (1.6) | 430 (6.1) | 1 (0.5) | ~ ~ | 10.8 (0.08) |
| Russian Federation | 82 (3.0) | 569 (2.8) | 17 (2.9) | 565 (6.7) | 1 (0.7) | ~ ~ | 10.7 (0.16) |
| Malta | 81 (0.1) | 477 (1.5) | 19 (0.1) | 479 (3.8) | 0 (0.0) | ~ ~ | 10.3 (0.00) |
| Colombia | 80 (3.3) | 451 (4.2) | 20 (3.3) | 432 (11.3) | 0 (0.0) | ~ ~ | 10.6 (0.16) |
| Georgia | 78 (2.5) | 490 (2.9) | 21 (2.5) | 480 (9.3) | 0 (0.0) | ~ ~ | 10.6 (0.13) |
| Northern Ireland | r 78 (3.7) | 559 (3.1) | 21 (3.8) | 565 (6.6) | 1 (0.6) | ~ ~ | 9.8 (0.13) |
| Australia | r 77 (3.3) | 534 (3.0) | 23 (3.3) | 523 (4.7) | 0 (0.2) | ~ ~ | 10.0 (0.13) |
| Canada | 76 (1.6) | 549 (1.7) | 23 (1.7) | 546 (4.0) | 1 (0.5) | ~ ~ | 10.1 (0.09) |
| Iran, Islamic Rep. of | 75 (2.7) | 462 (3.8) | 24 (2.8) | 444 (6.9) | 1 (0.4) | ~ ~ | 10.3 (0.13) |
| Czech Republic | 74 (3.6) | 547 (2.3) | 25 (3.6) | 539 (5.7) | 1 (0.8) | ~ ~ | 9.8 (0.11) |
| Poland | 74 (3.1) | 524 (2.3) | 25 (3.1) | 531 (4.3) | 1 (0.6) | ~ ~ | 10.2 (0.13) |
| Oman | 73 (2.6) | 395 (3.2) | 26 (2.6) | 381 (5.7) | 1 (0.4) | ~ ~ | 10.0 (0.10) |
| Italy | 73 (3.1) | 539 (2.8) | 26 (3.1) | 549 (3.8) | 1 (0.7) | ~ ~ | 10.1 (0.14) |
| Singapore | 71 (2.4) | 569 (4.2) | 27 (2.4) | 560 (6.3) | 2 (0.8) | ~ ~ | 10.0 (0.12) |
| Azerbaijan | 68 (3.4) | 466 (3.5) | 32 (3.4) | 456 (6.8) | 0 (0.0) | ~ ~ | 10.0 (0.14) |
| Ireland | 67 (3.2) | 552 (2.8) | 32 (3.2) | 552 (4.6) | 1 (0.5) | ~ ~ | 9.8 (0.14) |
| Spain | 66 (3.2) | 514 (2.8) | 33 (3.0) | 513 (4.7) | 1 (0.9) | ~ ~ | 9.9 (0.14) |
| New Zealand | 66 (3.0) | 537 (2.6) | 34 (3.0) | 527 (5.0) | 0 (0.2) | ~ ~ | 9.6 (0.09) |
| Morocco | 65 (3.6) | 319 (4.6) | 32 (3.5) | 297 (7.9) | 3 (1.4) | 289 (44.3) | 9.7 (0.17) |
| Saudi Arabia | 65 (3.7) | 436 (4.6) | 34 (3.7) | 420 (9.6) | 1 (0.7) | ~ ~ | 9.8 (0.13) |
| Hong Kong SAR | 60 (4.6) | 567 (3.4) | 35 (4.7) | 576 (4.5) | 5 (1.9) | 572 (15.1) | 9.5 (0.19) |
| France | 55 (3.6) | 523 (2.9) | 44 (3.6) | 517 (3.5) | 1 (0.6) | ~ ~ | 9.4 (0.13) |
| Netherlands | 54 (3.7) | 544 (2.3) | 45 (3.6) | 548 (3.3) | 1 (0.6) | ~ ~ | 9.1 (0.11) |
| Austria | 52 (3.5) | 527 (2.7) | 46 (3.3) | 531 (2.7) | 3 (1.1) | 530 (9.9) | 9.0 (0.13) |
| Belgium (French) | 50 (4.0) | 508 (4.4) | 48 (4.0) | 506 (4.2) | 3 (1.3) | 518 (21.4) | 9.0 (0.13) |
| Sweden | r 47 (4.0) | 542 (3.1) | 52 (4.1) | 544 (3.4) | 1 (0.8) | ~ ~ | 8.9 (0.15) |
| Germany | 47 (3.3) | 536 (3.1) | 50 (3.3) | 545 (2.8) | 3 (1.2) | 559 (6.4) | 8.7 (0.11) |
| Chinese Taipei | 39 (4.3) | 551 (3.2) | 46 (3.8) | 556 (2.7) | 15 (3.1) | 549 (5.5) | 8.5 (0.22) |
| Norway | 38 (4.1) | 509 (3.9) | 59 (4.4) | 506 (2.6) | 4 (1.9) | 493 (11.6) | 8.5 (0.13) |
| Finland | 33 (3.2) | 570 (2.9) | 61 (3.2) | 566 (2.3) | 6 (1.4) | 574 (7.0) | 8.3 (0.11) |
| Denmark | 23 (2.7) | 557 (3.6) | 60 (3.1) | 553 (2.3) | 17 (2.7) | 556 (4.2) | 7.7 (0.11) |
| International Avg. | 71 (0.5) | 513 (0.5) | 27 (0.5) | 509 (1.1) | 2 (0.1) | ~ ~ | |

Centerpoint of scale set at 10.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

A tilde (~) indicates insufficient data to report achievement.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

Exhibit 8.6: Instruction to Engage Students in Learning (Continued)

| Country | Most Lessons | | About Half the Lessons | | Some Lessons | | Average Scale Score |
|--|---------------------|---------------------|------------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Sixth Grade Participants | | | | | | | |
| Honduras | 79 (4.1) | 455 (5.7) | 20 (4.1) | 431 (11.2) | 1 (1.0) | ~ ~ | 10.3 (0.19) |
| Kuwait | 78 (4.6) | 418 (8.2) | 22 (4.6) | 418 (18.3) | 0 (0.0) | ~ ~ | 10.4 (0.22) |
| Botswana | 72 (4.1) | 421 (5.8) | 28 (4.1) | 418 (8.0) | 0 (0.0) | ~ ~ | 10.4 (0.17) |
| Morocco | 72 (4.6) | 424 (6.0) | 26 (4.3) | 414 (9.4) | 3 (1.4) | 436 (28.6) | 10.1 (0.21) |
| Benchmarking Participants^o | | | | | | | |
| Florida, US | 90 (3.6) | 569 (4.3) | 10 (3.6) | 588 (9.9) | 0 (0.0) | ~ ~ | 11.1 (0.16) |
| Dubai, UAE | 89 (1.6) | 482 (2.9) | 11 (1.6) | 436 (11.4) | 0 (0.0) | ~ ~ | 11.1 (0.13) |
| Alberta, Canada | 85 (2.7) | 550 (3.0) | 15 (2.7) | 536 (7.7) | 0 (0.0) | ~ ~ | 10.4 (0.12) |
| Ontario, Canada | 84 (2.5) | 552 (2.6) | 16 (2.5) | 543 (7.7) | 0 (0.0) | ~ ~ | 10.4 (0.16) |
| Maltese - Malta | 83 (0.1) | 457 (1.7) | 17 (0.1) | 464 (3.8) | 0 (0.0) | ~ ~ | 10.6 (0.01) |
| Abu Dhabi, UAE | 81 (3.2) | 424 (5.7) | 18 (3.1) | 427 (10.4) | 1 (0.8) | ~ ~ | 10.9 (0.16) |
| Andalusia, Spain | 72 (3.9) | 517 (3.0) | 26 (3.8) | 508 (4.6) | 1 (1.0) | ~ ~ | 10.2 (0.16) |
| Eng/Afr (5) - RSA | 72 (5.0) | 423 (9.8) | 28 (5.0) | 437 (15.7) | 0 (0.0) | ~ ~ | 10.3 (0.20) |
| Quebec, Canada | 60 (4.0) | 538 (3.1) | 39 (4.1) | 537 (3.4) | 1 (0.6) | ~ ~ | 9.3 (0.13) |

^o Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Most Lessons | | About Half the Lessons | | Some Lessons | | Average Scale Score |
|--------------|---------------------|---------------------|------------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| South Africa | 80 (2.6) | 460 (4.4) | 18 (2.4) | 457 (12.4) | 1 (0.8) | ~ ~ | 10.4 (0.13) |
| Colombia | 80 (3.3) | 580 (3.3) | 20 (3.3) | 559 (10.1) | 0 (0.0) | ~ ~ | 10.5 (0.16) |
| Botswana | 61 (4.2) | 465 (5.0) | 39 (4.1) | 458 (6.2) | 1 (0.0) | ~ ~ | 9.8 (0.15) |

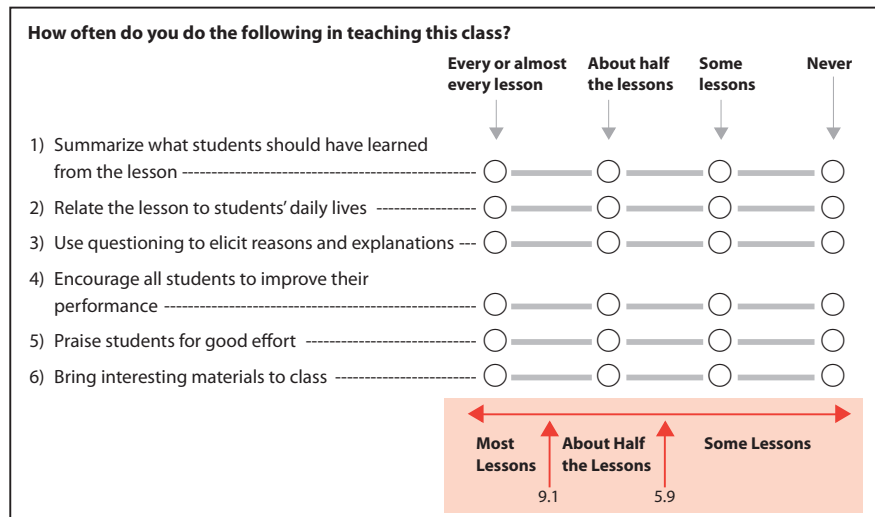


Exhibit 8.7: Students Engaged in Reading Lessons

Reported by Students

Students were scored according to their degree of agreement with seven statements on the *Engaged in Reading Lessons* scale. Students **Engaged** in reading lessons had a score on the scale of at least 10.5, which corresponds to their “agreeing a lot” with four of the seven statements and “agreeing a little” with the other three, on average. Students who were **Not Engaged** had a score no higher than 7.4, which corresponds to their “disagreeing a little” with four of the seven statements and “agreeing a little” with the other three, on average. All other students were **Somewhat Engaged** in reading lessons.

| Country | Engaged | | Somewhat Engaged | | Not Engaged | | Average Scale Score |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Indonesia | 71 (1.1) | 440 (3.8) | 27 (1.1) | 415 (5.3) | 2 (0.2) | ~ ~ | 11.3 (0.07) |
| Georgia | 68 (1.1) | 500 (2.8) | 31 (1.0) | 475 (4.4) | 2 (0.2) | ~ ~ | 11.1 (0.05) |
| Azerbaijan | 67 (1.3) | 474 (3.4) | 30 (1.2) | 459 (3.0) | 2 (0.3) | ~ ~ | 10.9 (0.06) |
| Romania | 65 (1.7) | 513 (4.5) | 31 (1.4) | 491 (5.1) | 4 (0.7) | 438 (11.8) | 11.0 (0.08) |
| Bulgaria | 64 (1.3) | 540 (3.9) | 32 (1.1) | 524 (4.9) | 3 (0.4) | 498 (9.3) | 11.0 (0.06) |
| Iran, Islamic Rep. of | 61 (1.1) | 464 (3.2) | 35 (1.1) | 451 (3.5) | 4 (0.4) | 417 (9.8) | 10.9 (0.06) |
| Colombia | 59 (1.2) | 457 (4.7) | 38 (1.1) | 442 (4.8) | 3 (0.3) | 428 (9.8) | 10.7 (0.05) |
| Morocco | 57 (1.6) | 334 (4.5) | 38 (1.3) | 289 (4.6) | 5 (0.7) | 255 (10.8) | 10.7 (0.09) |
| Malta | 55 (0.8) | 490 (2.1) | 38 (0.8) | 469 (2.7) | 7 (0.4) | 434 (6.5) | 10.6 (0.03) |
| Portugal | 55 (1.7) | 550 (2.8) | 43 (1.6) | 531 (3.4) | 2 (0.4) | ~ ~ | 10.6 (0.07) |
| Russian Federation | 53 (1.1) | 571 (3.0) | 42 (0.9) | 567 (3.3) | 5 (0.3) | 560 (6.6) | 10.6 (0.05) |
| Trinidad and Tobago | 51 (1.5) | 483 (4.3) | 43 (1.4) | 463 (4.4) | 6 (0.6) | 440 (10.4) | 10.3 (0.07) |
| United Arab Emirates | 51 (0.7) | 453 (2.5) | 43 (0.6) | 431 (3.1) | 6 (0.3) | 395 (6.4) | 10.4 (0.04) |
| Hungary | 50 (1.2) | 551 (3.2) | 43 (0.9) | 531 (3.5) | 7 (0.5) | 524 (6.5) | 10.4 (0.05) |
| Poland | 46 (1.1) | 534 (2.2) | 48 (1.0) | 522 (2.9) | 6 (0.4) | 501 (4.6) | 10.3 (0.04) |
| Oman | 44 (1.0) | 418 (2.8) | 50 (0.9) | 377 (3.4) | 6 (0.4) | 325 (6.8) | 10.2 (0.05) |
| United States | 43 (0.8) | 565 (1.9) | 49 (0.6) | 554 (1.6) | 8 (0.4) | 539 (3.1) | 10.0 (0.04) |
| Ireland | 43 (1.5) | 557 (2.5) | 49 (1.2) | 550 (3.0) | 8 (0.7) | 541 (5.6) | 10.0 (0.07) |
| Qatar | 43 (1.2) | 448 (4.1) | 49 (1.0) | 418 (4.6) | 8 (0.6) | 392 (8.6) | 10.0 (0.05) |
| Israel | 43 (1.5) | 542 (3.1) | 45 (1.1) | 539 (3.8) | 12 (1.0) | 552 (4.6) | 10.0 (0.08) |
| Lithuania | 41 (1.3) | 534 (2.1) | 54 (1.2) | 529 (2.6) | 6 (0.5) | 496 (5.0) | 10.0 (0.05) |
| Spain | 40 (1.4) | 520 (2.8) | 52 (1.1) | 510 (2.7) | 8 (0.7) | 507 (6.3) | 9.9 (0.06) |
| Canada | 39 (0.9) | 558 (1.9) | 54 (0.7) | 545 (1.9) | 7 (0.4) | 531 (4.4) | 9.9 (0.03) |
| Belgium (French) | 38 (1.4) | 508 (3.0) | 53 (1.1) | 507 (3.4) | 9 (0.8) | 497 (5.0) | 9.8 (0.06) |
| Northern Ireland | 37 (1.4) | 561 (3.5) | 55 (1.2) | 559 (2.9) | 8 (0.7) | 551 (5.4) | 9.8 (0.06) |
| Slovenia | 37 (1.2) | 531 (2.2) | 57 (1.2) | 533 (2.6) | 6 (0.6) | 513 (6.4) | 9.8 (0.05) |
| Czech Republic | 35 (1.4) | 544 (2.7) | 55 (1.1) | 549 (2.4) | 10 (0.9) | 537 (4.1) | 9.7 (0.07) |
| Croatia | 35 (1.3) | 553 (2.4) | 54 (0.9) | 554 (2.1) | 11 (1.0) | 550 (4.0) | 9.7 (0.06) |
| Germany | 35 (1.1) | 547 (3.2) | 56 (0.9) | 545 (2.2) | 9 (0.7) | 526 (4.7) | 9.7 (0.05) |
| France | 35 (1.1) | 525 (3.4) | 59 (1.1) | 521 (2.6) | 7 (0.8) | 494 (4.5) | 9.8 (0.05) |
| New Zealand | 34 (1.1) | 534 (3.1) | 57 (1.0) | 533 (1.8) | 9 (0.7) | 520 (7.0) | 9.7 (0.04) |
| Italy | 34 (1.1) | 542 (2.8) | 59 (1.0) | 545 (2.4) | 7 (0.6) | 523 (3.8) | 9.7 (0.05) |
| England | 34 (1.5) | 551 (4.0) | 57 (1.2) | 554 (2.8) | 9 (0.8) | 541 (6.1) | 9.6 (0.06) |
| Saudi Arabia | 33 (1.4) | 438 (4.9) | 61 (1.4) | 431 (5.0) | 6 (0.5) | 394 (12.5) | 9.6 (0.05) |
| Australia | 33 (1.1) | 538 (3.7) | 56 (0.9) | 526 (2.5) | 11 (0.7) | 509 (4.4) | 9.6 (0.05) |
| Slovak Republic | 32 (1.2) | 533 (4.1) | 59 (1.0) | 539 (2.4) | 9 (0.7) | 524 (4.3) | 9.6 (0.05) |
| Austria | 32 (1.1) | 527 (2.9) | 55 (1.0) | 532 (2.0) | 13 (1.0) | 525 (3.5) | 9.5 (0.05) |
| Chinese Taipei | 31 (1.3) | 561 (2.5) | 54 (0.9) | 555 (2.1) | 14 (1.0) | 531 (4.6) | 9.4 (0.06) |
| Singapore | 31 (0.8) | 575 (3.6) | 57 (0.7) | 568 (3.6) | 13 (0.6) | 554 (4.4) | 9.5 (0.03) |
| Norway | 31 (1.7) | 510 (3.2) | 59 (1.7) | 510 (2.2) | 11 (0.9) | 490 (5.6) | 9.5 (0.07) |
| Sweden | 29 (1.3) | 541 (3.1) | 63 (1.0) | 545 (2.4) | 9 (0.8) | 528 (4.4) | 9.5 (0.05) |
| Hong Kong SAR | 24 (1.0) | 578 (2.5) | 58 (0.7) | 571 (2.5) | 18 (1.0) | 563 (3.8) | 9.1 (0.06) |
| Netherlands | 20 (1.0) | 548 (2.9) | 65 (0.9) | 549 (2.2) | 15 (1.1) | 532 (2.7) | 9.0 (0.06) |
| Denmark | 18 (0.9) | 557 (3.2) | 68 (0.9) | 556 (1.8) | 14 (0.7) | 544 (2.8) | 9.0 (0.04) |
| Finland | 15 (0.8) | 568 (3.6) | 65 (1.0) | 573 (2.1) | 20 (1.0) | 553 (2.8) | 8.7 (0.04) |
| International Avg. | 42 (0.2) | 519 (0.5) | 50 (0.2) | 510 (0.5) | 8 (0.1) | 494 (1.0) | |

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

Centerpoint of scale set at 10.

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

A tilde (~) indicates insufficient data to report achievement.

Exhibit 8.7: Students Engaged in Reading Lessons (Continued)

| Country | Engaged | | Somewhat Engaged | | Not Engaged | | Average Scale Score |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Sixth Grade Participants | | | | | | | |
| Honduras | 60 (1.6) | 446 (5.2) | 37 (1.3) | 457 (5.7) | 4 (0.6) | 454 (16.0) | 10.6 (0.07) |
| Morocco | 59 (1.7) | 440 (3.7) | 37 (1.7) | 402 (5.9) | 4 (0.6) | 398 (11.4) | 10.8 (0.07) |
| Botswana | 41 (1.2) | 446 (4.4) | 51 (1.0) | 409 (4.6) | 8 (0.6) | 362 (6.6) | 9.9 (0.05) |
| Kuwait | 39 (1.4) | 441 (5.7) | 51 (1.4) | 422 (5.4) | 10 (0.7) | 396 (10.9) | 9.8 (0.06) |
| Benchmarking Participants⁰ | | | | | | | |
| Maltese - Malta | 53 (0.8) | 473 (2.2) | 38 (0.8) | 447 (2.5) | 9 (0.5) | 418 (5.5) | 10.5 (0.04) |
| Dubai, UAE | 52 (1.2) | 489 (2.5) | 42 (1.2) | 472 (3.2) | 5 (0.3) | 430 (6.3) | 10.4 (0.05) |
| Abu Dhabi, UAE | 50 (1.6) | 440 (4.9) | 43 (1.4) | 417 (5.9) | 7 (0.7) | 384 (10.5) | 10.4 (0.08) |
| Florida, US | 47 (1.5) | 577 (3.5) | 46 (1.4) | 567 (3.2) | 7 (0.6) | 543 (7.7) | 10.2 (0.06) |
| Eng/Afr (5) - RSA | 45 (1.4) | 440 (6.4) | 47 (1.3) | 417 (9.3) | 7 (0.8) | 391 (16.8) | 10.0 (0.06) |
| Alberta, Canada | 43 (1.3) | 557 (3.4) | 51 (1.3) | 544 (3.1) | 6 (0.5) | 531 (5.3) | 10.1 (0.05) |
| Ontario, Canada | 42 (1.2) | 561 (3.6) | 52 (1.2) | 548 (2.8) | 6 (0.7) | 531 (7.2) | 10.1 (0.05) |
| Andalusia, Spain | 41 (1.4) | 520 (2.7) | 50 (1.1) | 513 (2.7) | 8 (0.7) | 507 (5.9) | 10.0 (0.07) |
| Quebec, Canada | 30 (1.4) | 546 (3.2) | 61 (1.3) | 537 (2.3) | 9 (0.8) | 522 (5.3) | 9.5 (0.06) |

⁰ Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Engaged | | Somewhat Engaged | | Not Engaged | | Average Scale Score |
|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Colombia | 59 (1.2) | 583 (3.7) | 38 (1.0) | 572 (4.1) | 3 (0.3) | 565 (8.7) | 10.7 (0.05) |
| South Africa | 47 (1.3) | 493 (3.9) | 45 (1.1) | 452 (4.2) | 8 (0.5) | 409 (4.9) | 10.1 (0.07) |
| Botswana | 25 (1.3) | 515 (5.4) | 58 (1.0) | 456 (3.2) | 18 (0.9) | 424 (3.4) | 9.1 (0.07) |

Think about the reading you do for school. How much do you agree with these statements about your reading lessons?

Agree a lot Agree a little Disagree a little Disagree a lot

1) I like what I read about in school ----- ○ ————— ○ ————— ○ ————— ○

2) My teacher gives me interesting things to read ----- ○ ————— ○ ————— ○ ————— ○

3) I know what my teacher expects me to do ----- ○ ————— ○ ————— ○ ————— ○

4) I think of things not related to the lesson* ----- ○ ————— ○ ————— ○ ————— ○

5) My teacher is easy to understand ----- ○ ————— ○ ————— ○ ————— ○

6) I am interested in what my teacher says ----- ○ ————— ○ ————— ○ ————— ○

7) My teacher gives me interesting things to do ----- ○ ————— ○ ————— ○ ————— ○

* Reverse coded

Engaged Somewhat Engaged Not Engaged

10.5 7.4

reported being **Somewhat Engaged**, and only 8 percent reported being **Not Engaged**. Across the fourth grade, sixth grade, benchmarking, and prePIRLS participants, there was a positive relationship between students' reports about being more engaged and higher average reading achievement. **Engaged** students had higher achievement than their counterparts that reported being only **Somewhat Engaged**, and students **Not Engaged** had the lowest achievement.

Reading Comprehension Skills and Strategies Emphasized in Lessons

Exhibit 8.8 presents teachers' reports about the reading skills and strategies that they emphasize in their reading instruction on at least a weekly basis. On average, internationally, almost all of the fourth grade students (95–96%) were asked at least weekly to locate information within the text, identify the main ideas of what they have read, and explain or support their understanding of what they have read. Substantially fewer (80–81%) were asked at least weekly to compare what they have read with their own experiences or make generalizations and draw inferences, and even fewer (70–74%) to compare what they have read with other things they have read or make predictions about what will happen next in the text. The skills and strategies of making comparisons, generalizations, inferences, and predictions are important reading comprehension processes in the PIRLS Framework, and have been learned by the fourth grade students in the highest achieving countries (see Chapter 2).

Finally, approximately two-thirds of the fourth grade students (63–66%) were asked regularly to describe the structure of the text or determine the author's perspective or intention. The ability to examine and evaluate text also features prominently in the PIRLS Framework and is fundamental to reading across the curriculum. In general, teachers reported a nearly universal emphasis on retrieving information and identifying main ideas in texts, but the emphasis on more complex reading comprehension strategies varied from country to country. This pattern was reflected in teachers' reports for the sixth grade, benchmarking, and prePIRLS participants. However, as might have been anticipated, compared to the emphases reported at the fourth grade, the entire range of reading comprehension skills and strategies was emphasized for somewhat larger percentages of students at the sixth grade, and for somewhat smaller percentages of fourth grade students participating in prePIRLS.

Students Ready to Learn

Instruction Limited by Students Lacking Prerequisite Knowledge or Skills

The characteristics of the students themselves can be very important to the classroom atmosphere. To begin, students need the prerequisite reading skills before they can make gains in achievement. Because prior knowledge guides learning, effective reading teachers assess students' language skills and conceptual understanding, and link new ideas, skills, and competencies to prior understandings. Lack of prerequisite knowledge and skills are psychological barriers to learning to read, because it is well known that students' new learning depends on that prior knowledge: "Every new thing that a person learns must be attached to what the person already knows" (McLaughlin et al., 2005, p. 5).

Exhibit 8.9 presents teachers' reports about whether their reading instruction was limited by students lacking prerequisite knowledge or skills. On average, internationally, 28 percent of the fourth grade students were in classes where students had the necessary reading comprehension skills for instruction to proceed according to teachers' plans, and 61 percent were in classes where instruction was limited to some extent. It is consistent with teachers' reports that the students in classes where instruction was progressing unimpeded had higher average reading achievement than did their counterparts in classes where instruction was limited to some extent (526 vs. 512). Also consistent with teachers' reports, average reading achievement was substantially lower (485) for the fourth grade students in classrooms where instruction was limited "a lot" because students lacked the prerequisite knowledge or skills. As would be anticipated, the problem of students lacking prerequisite skills was more pronounced for countries participating at the sixth grade and in prePIRLS.

Instruction Limited by Students Suffering from Lack of Nutrition or Sleep

The importance of a healthy breakfast is widely advertised, including the benefit of doing better in school. Unfortunately, some children in many countries around the world suffer from hunger, and a growing body of research, mostly in developing countries, is providing evidence that malnutrition has a negative impact on educational achievement. Similarly, a number of studies in a variety of countries have shown sleep duration and quality to be related to academic functioning at school. For example, a Dutch researcher found that chronic sleep reduction can affect school achievement directly and indirectly via motivation and engagement (Meijer, 2008).

Exhibit 8.8: Teachers Develop Students' Reading Comprehension Skills and Strategies

Reported by Teachers

| Country | Percent of Students Whose Teachers Ask Them to Do the Following At Least Weekly | | | | | | | | | |
|-----------------------|---|--|---|--|--|--|--|---|---|--|
| | Locate Information Within the Text | Identify the Main Ideas of What They Have Read | Explain or Support Their Understanding of What They Have Read | Compare What They Have Read with Experiences They Have Had | Compare What They Have Read with Other Things They Have Read | Make Predictions About What Will Happen Next in the Text | Make Generalizations and Draw Inferences | Describe the Style or Structure of the Text | Determine the Author's Perspective or Intention | |
| Australia | r 96 (1.6) | r 95 (2.2) | r 96 (1.7) | r 87 (2.4) | r 72 (3.7) | r 92 (1.4) | r 92 (1.9) | r 84 (2.8) | r 73 (3.4) | |
| Austria | 87 (2.5) | 92 (1.6) | 95 (1.2) | 64 (3.4) | 44 (3.3) | 37 (3.0) | 56 (3.4) | 27 (3.0) | 24 (2.6) | |
| Azerbaijan | 99 (0.7) | 98 (1.0) | 97 (1.0) | 93 (1.7) | 93 (2.1) | 83 (2.8) | 90 (1.9) | 85 (2.8) | 95 (1.2) | |
| Belgium (French) | 86 (3.1) | 78 (3.5) | 83 (2.9) | 29 (3.5) | 23 (2.9) | 45 (4.8) | 45 (4.0) | 32 (4.4) | 29 (3.3) | |
| Bulgaria | 99 (0.5) | 99 (0.5) | 99 (0.6) | 95 (1.6) | 89 (2.3) | 87 (2.4) | 99 (0.5) | 89 (1.9) | 93 (1.9) | |
| Canada | 96 (0.9) | 94 (1.1) | 96 (0.9) | 82 (1.7) | 72 (1.9) | 87 (1.5) | 88 (1.5) | 57 (2.3) | 57 (2.3) | |
| Chinese Taipei | 89 (2.7) | 87 (3.0) | 73 (3.7) | 65 (4.2) | 51 (4.4) | 47 (4.5) | 62 (4.1) | 52 (4.4) | 66 (3.8) | |
| Colombia | 93 (2.2) | 96 (1.7) | 93 (2.3) | 83 (3.5) | 75 (4.0) | 74 (3.3) | 74 (3.7) | 70 (4.2) | 71 (3.7) | |
| Croatia | 99 (1.1) | 99 (0.7) | 97 (1.0) | 90 (2.1) | 72 (3.1) | 62 (3.2) | 94 (1.9) | 85 (2.6) | 83 (2.5) | |
| Czech Republic | 99 (0.8) | 97 (1.1) | 99 (0.5) | 83 (2.9) | 47 (3.9) | 54 (3.9) | 67 (3.8) | 32 (3.7) | 30 (3.8) | |
| Denmark | 86 (2.0) | 86 (2.6) | 86 (2.2) | 65 (3.1) | 51 (3.6) | 50 (3.5) | 54 (3.4) | 41 (3.5) | 40 (3.4) | |
| England | 97 (1.4) | 97 (1.4) | 95 (1.8) | 78 (3.3) | 74 (3.5) | 96 (1.4) | 93 (1.9) | 82 (3.2) | 72 (3.6) | |
| Finland | 86 (2.2) | 88 (2.8) | 80 (2.8) | 67 (3.5) | 39 (3.5) | 44 (3.4) | 66 (3.2) | 24 (2.6) | 15 (2.1) | |
| France | 97 (1.4) | 91 (1.8) | 92 (1.8) | 39 (3.7) | 34 (3.5) | 54 (3.1) | 55 (3.7) | 41 (3.5) | 38 (3.9) | |
| Georgia | 98 (0.9) | 100 (0.3) | 100 (0.0) | 99 (0.7) | 96 (1.5) | 92 (2.0) | 98 (1.1) | 92 (1.9) | 95 (1.6) | |
| Germany | 96 (1.4) | 90 (2.2) | 95 (1.4) | 74 (3.1) | 52 (3.5) | 53 (3.5) | 64 (3.7) | 30 (3.3) | 31 (3.3) | |
| Hong Kong SAR | 100 (0.0) | 96 (1.9) | 96 (1.9) | 81 (3.6) | 70 (3.9) | 78 (4.0) | 84 (3.3) | 77 (4.2) | 82 (3.7) | |
| Hungary | 99 (0.5) | 99 (0.9) | 100 (0.4) | 95 (1.5) | 91 (1.9) | 83 (2.9) | 96 (1.3) | 74 (3.4) | 72 (3.2) | |
| Indonesia | 89 (2.8) | 85 (4.3) | 95 (1.8) | 81 (3.6) | 80 (3.5) | 71 (4.0) | 81 (3.5) | 82 (3.3) | 62 (4.4) | |
| Iran, Islamic Rep. of | 83 (2.7) | 91 (2.1) | 84 (2.2) | 72 (2.8) | 64 (3.2) | 61 (3.5) | 76 (3.3) | 72 (3.8) | 64 (3.2) | |
| Ireland | 98 (0.9) | 97 (1.1) | 96 (1.3) | 87 (2.5) | 68 (3.6) | 91 (2.1) | 83 (3.0) | 58 (3.7) | 52 (4.2) | |
| Israel | 100 (0.0) | 100 (0.0) | 100 (0.5) | 90 (2.5) | 83 (3.1) | 97 (1.2) | 96 (1.7) | 98 (1.1) | 89 (2.7) | |
| Italy | 100 (0.1) | 100 (0.3) | 99 (0.6) | 88 (2.1) | 76 (2.9) | 78 (2.7) | 69 (3.2) | 83 (2.2) | 77 (2.7) | |
| Lithuania | 100 (0.0) | 100 (0.0) | 100 (0.4) | 99 (0.5) | 96 (1.1) | 90 (1.9) | 99 (0.6) | 91 (1.8) | 85 (2.4) | |
| Malta | 99 (0.0) | 99 (0.0) | 99 (0.0) | 81 (0.1) | 72 (0.1) | 76 (0.1) | 69 (0.1) | 61 (0.1) | 53 (0.1) | |
| Morocco | 96 (2.1) | 97 (1.1) | 97 (1.2) | 70 (4.2) | 62 (4.2) | 69 (3.7) | 81 (3.3) | 77 (3.2) | 75 (2.9) | |
| Netherlands | 99 (0.9) | 88 (3.1) | 90 (2.3) | 77 (3.8) | 57 (4.5) | 77 (3.7) | 79 (3.0) | 48 (3.3) | 45 (4.1) | |
| New Zealand | 99 (0.5) | 98 (0.7) | 97 (0.9) | 89 (2.3) | 74 (3.0) | 94 (1.6) | 94 (1.4) | 72 (2.4) | 72 (2.5) | |
| Northern Ireland | r 99 (1.1) | r 94 (2.5) | r 98 (1.3) | r 67 (3.8) | r 59 (3.7) | r 84 (3.4) | r 82 (3.4) | r 64 (4.4) | r 50 (4.6) | |
| Norway | 98 (1.4) | 90 (2.4) | 91 (2.2) | 65 (4.4) | 49 (4.6) | 33 (4.2) | 52 (4.9) | 29 (4.1) | 19 (3.3) | |
| Oman | 93 (1.3) | 95 (1.2) | 98 (0.8) | 89 (1.9) | 68 (2.5) | 76 (2.5) | 78 (2.6) | 77 (2.6) | 72 (2.7) | |
| Poland | 100 (0.3) | 99 (0.7) | 97 (1.2) | 96 (1.6) | 72 (3.2) | 75 (3.0) | 98 (1.0) | 74 (3.5) | 81 (2.5) | |
| Portugal | 100 (0.4) | 100 (0.4) | 100 (0.4) | 92 (2.4) | 91 (2.2) | 89 (2.7) | 89 (2.3) | 96 (1.5) | 92 (2.0) | |
| Qatar | 98 (1.1) | 98 (0.9) | 98 (0.9) | 90 (2.0) | 82 (3.9) | 89 (2.3) | 87 (2.2) | 83 (4.0) | 71 (5.0) | |
| Romania | 100 (0.2) | 100 (0.0) | 100 (0.0) | 94 (1.8) | 92 (2.1) | 90 (2.3) | 90 (2.3) | 85 (2.7) | 91 (2.1) | |
| Russian Federation | 100 (0.0) | 99 (0.7) | 99 (0.6) | 92 (2.0) | 88 (2.7) | 84 (2.6) | 98 (0.8) | 83 (3.0) | 96 (1.3) | |
| Saudi Arabia | 97 (1.5) | 98 (1.2) | 98 (1.1) | 91 (2.4) | 79 (3.3) | 71 (4.0) | 79 (3.4) | 79 (3.2) | 63 (3.8) | |
| Singapore | 95 (1.2) | 95 (1.2) | 95 (1.2) | 89 (1.8) | 81 (2.1) | 90 (1.7) | 90 (1.7) | 78 (2.4) | 72 (2.3) | |
| Slovak Republic | 98 (1.0) | 99 (0.6) | 99 (0.9) | 92 (1.9) | 79 (2.8) | 72 (2.9) | 88 (2.2) | 64 (3.0) | 69 (3.3) | |
| Slovenia | 98 (0.8) | 91 (2.9) | 98 (1.0) | 88 (2.5) | 71 (4.0) | 55 (3.9) | 81 (2.8) | 61 (3.7) | 42 (3.7) | |
| Spain | 98 (0.9) | 97 (1.4) | 97 (1.5) | 84 (2.4) | 74 (2.9) | 63 (3.4) | 73 (3.2) | 58 (3.0) | 48 (3.4) | |
| Sweden | r 96 (1.2) | r 78 (3.5) | r 77 (4.0) | r 56 (4.1) | r 27 (3.3) | r 38 (4.0) | r 53 (4.6) | r 19 (3.3) | r 12 (2.3) | |
| Trinidad and Tobago | 100 (0.0) | 100 (0.5) | 99 (0.6) | 95 (1.5) | 84 (3.0) | 93 (2.0) | 94 (2.0) | 65 (4.0) | 66 (4.1) | |
| United Arab Emirates | 96 (1.0) | 96 (1.0) | 99 (0.5) | 89 (1.4) | 83 (1.7) | 87 (1.5) | 71 (2.0) | 73 (2.6) | 74 (2.3) | |
| United States | r 99 (0.5) | r 99 (0.3) | r 99 (0.3) | r 95 (1.1) | r 90 (1.6) | r 98 (0.9) | r 98 (0.9) | r 81 (2.1) | r 84 (1.8) | |
| International Avg. | 96 (0.2) | 95 (0.3) | 95 (0.2) | 81 (0.4) | 70 (0.5) | 74 (0.4) | 80 (0.4) | 66 (0.5) | 63 (0.5) | |

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

Exhibit 8.8: Teachers Develop Students' Reading Comprehension Skills and Strategies (Continued)

| Country | Percent of Students Whose Teachers Ask Them to Do the Following At Least Weekly | | | | | | | | |
|---------|---|--|---|--|--|--|--|---|---|
| | Locate Information Within the Text | Identify the Main Ideas of What They Have Read | Explain or Support Their Understanding of What They Have Read | Compare What They Have Read with Experiences They Have Had | Compare What They Have Read with Other Things They Have Read | Make Predictions About What Will Happen Next in the Text | Make Generalizations and Draw Inferences | Describe the Style or Structure of the Text | Determine the Author's Perspective or Intention |

Sixth Grade Participants

| | | | | | | | | | |
|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Botswana | 92 (2.4) | 93 (2.3) | 95 (1.9) | 87 (2.6) | 79 (3.6) | 75 (3.4) | 69 (4.0) | 71 (3.8) | 67 (4.7) |
| Honduras | 97 (1.7) | 96 (1.5) | 98 (0.8) | 90 (3.1) | 82 (3.7) | 80 (3.9) | 81 (3.6) | 85 (2.7) | 74 (4.0) |
| Kuwait | s 98 (1.2) | s 96 (1.5) | s 95 (2.1) | s 88 (3.8) | s 68 (5.1) | s 75 (3.8) | s 69 (5.7) | s 76 (4.8) | s 76 (5.2) |
| Morocco | r 97 (1.5) | r 99 (0.8) | r 97 (1.6) | r 79 (3.1) | r 70 (3.8) | r 77 (3.6) | r 86 (2.3) | r 81 (3.6) | r 76 (3.9) |

Benchmarking Participants^o

| | | | | | | | | | |
|-------------------|-------------|------------|-------------|------------|------------|------------|-------------|------------|------------|
| Alberta, Canada | 92 (2.4) | 94 (1.6) | 96 (1.3) | 85 (2.9) | 71 (3.8) | 92 (2.2) | 89 (2.4) | 51 (3.6) | 51 (3.9) |
| Ontario, Canada | 98 (1.1) | 97 (1.1) | 99 (0.2) | 94 (2.2) | 86 (3.1) | 93 (2.1) | 94 (2.2) | 71 (3.2) | 71 (4.4) |
| Quebec, Canada | 99 (0.5) | 89 (2.7) | 92 (2.3) | 52 (3.6) | 37 (4.2) | 69 (4.2) | 76 (3.9) | 48 (4.6) | 48 (4.2) |
| Maltese - Malta | s 98 (0.0) | s 99 (0.0) | s 97 (0.1) | s 78 (0.2) | s 68 (0.2) | s 73 (0.2) | s 63 (0.2) | s 57 (0.2) | s 54 (0.2) |
| Eng/Afr (5) - RSA | 91 (3.1) | r 86 (3.6) | 94 (2.4) | 86 (3.4) | r 77 (4.4) | r 68 (4.2) | r 65 (5.2) | r 59 (4.3) | r 55 (5.0) |
| Andalusia, Spain | 100 (0.4) | 98 (1.3) | 97 (1.4) | 83 (3.2) | 74 (3.6) | 66 (3.7) | 74 (3.7) | 56 (3.5) | 48 (3.8) |
| Abu Dhabi, UAE | 94 (1.9) | 97 (1.5) | 99 (0.7) | 86 (2.6) | 81 (2.9) | 83 (3.1) | 69 (4.3) | 73 (4.6) | 74 (4.2) |
| Dubai, UAE | r 97 (1.2) | r 95 (1.2) | r 99 (0.4) | r 91 (1.6) | r 83 (2.3) | r 92 (1.3) | r 83 (1.9) | r 74 (3.8) | r 72 (3.8) |
| Florida, US | s 100 (0.0) | s 99 (0.9) | s 100 (0.0) | s 99 (0.9) | s 95 (1.8) | s 99 (0.9) | s 100 (0.5) | s 92 (2.4) | s 97 (1.8) |

^o Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

| Country | Percent of Students Whose Teachers Ask Them to Do the Following At Least Weekly | | | | | | | | |
|--------------|---|--|---|--|--|--|--|---|---|
| | Locate Information Within the Text | Identify the Main Ideas of What They Have Read | Explain or Support Their Understanding of What They Have Read | Compare What They Have Read with Experiences They Have Had | Compare What They Have Read with Other Things They Have Read | Make Predictions About What Will Happen Next in the Text | Make Generalizations and Draw Inferences | Describe the Style or Structure of the Text | Determine the Author's Perspective or Intention |
| Botswana | 86 (2.9) | 89 (2.7) | 87 (3.0) | 74 (3.5) | 72 (4.2) | 62 (4.1) | 58 (4.2) | 54 (4.2) | 48 (4.4) |
| Colombia | 93 (2.2) | 96 (1.7) | 93 (2.3) | 83 (3.5) | 75 (4.0) | 74 (3.3) | 74 (3.7) | 70 (4.2) | 71 (3.7) |
| South Africa | 89 (2.1) | 89 (2.3) | 96 (1.3) | 84 (2.7) | 76 (3.2) | 79 (3.0) | 71 (3.5) | 68 (3.2) | 55 (3.6) |

Exhibit 8.9: Instruction Limited by Students Lacking Prerequisite Knowledge or Skills

Reported by Teachers

| Country | Students in Classrooms Where Teachers Report Instruction Is Limited by Students Lacking Prerequisite Knowledge or Skills | | | | | |
|---------------------------|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Not At All | | Some | | A Lot | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Netherlands | 49 (4.1) | 553 (2.4) | 44 (4.1) | 543 (2.4) | 7 (1.7) | 524 (10.0) |
| Norway | 47 (4.7) | 510 (2.5) | 51 (4.7) | 506 (3.2) | 2 (0.7) | ~ ~ |
| Russian Federation | 44 (3.7) | 575 (4.2) | 44 (3.2) | 566 (4.2) | 12 (2.6) | 550 (5.9) |
| Finland | 41 (3.5) | 576 (2.3) | 57 (3.4) | 563 (2.5) | 2 (0.6) | ~ ~ |
| Denmark | 40 (3.4) | 561 (2.6) | 56 (3.5) | 551 (1.9) | 4 (1.2) | 527 (9.5) |
| Slovak Republic | 39 (3.4) | 548 (2.6) | 54 (3.4) | 531 (3.8) | 7 (1.3) | 501 (10.8) |
| Azerbaijan | 39 (3.6) | 468 (5.7) | 59 (3.7) | 462 (4.4) | 2 (0.8) | ~ ~ |
| Georgia | 38 (3.5) | 492 (5.0) | 61 (3.6) | 486 (3.7) | 2 (0.7) | ~ ~ |
| Israel | 37 (4.0) | 561 (5.3) | 50 (4.4) | 540 (5.9) | 13 (2.9) | 503 (10.8) |
| Ireland | 37 (3.1) | 567 (3.0) | 56 (3.4) | 549 (2.8) | 8 (1.9) | 502 (5.9) |
| Croatia | 35 (3.2) | 556 (2.5) | 61 (3.4) | 552 (2.5) | 4 (1.6) | 546 (10.3) |
| Sweden | r 33 (4.2) | 549 (3.4) | 60 (4.4) | 541 (3.0) | 7 (1.6) | 517 (8.0) |
| Slovenia | 33 (3.9) | 542 (3.0) | 56 (3.7) | 527 (2.4) | 11 (2.3) | 512 (3.6) |
| Austria | 31 (2.9) | 538 (2.7) | 54 (2.6) | 531 (2.2) | 15 (2.6) | 500 (3.9) |
| Australia | r 30 (3.2) | 555 (4.6) | 60 (4.0) | 524 (3.9) | 10 (2.4) | 501 (7.1) |
| Spain | 29 (3.1) | 520 (4.4) | 60 (3.1) | 515 (2.8) | 11 (2.1) | 485 (7.1) |
| Belgium (French) | 29 (3.7) | 519 (4.3) | 53 (3.9) | 510 (3.3) | 18 (3.4) | 479 (8.1) |
| Czech Republic | 28 (3.9) | 557 (3.2) | 68 (3.7) | 543 (2.6) | 3 (1.3) | 505 (25.3) |
| Oman | 28 (2.9) | 400 (4.4) | 57 (3.4) | 392 (3.8) | 15 (2.4) | 375 (6.9) |
| Romania | 28 (3.5) | 522 (7.3) | 67 (3.5) | 497 (5.3) | 5 (1.4) | 434 (27.9) |
| Hungary | 28 (3.1) | 564 (5.7) | 64 (3.5) | 536 (3.9) | 9 (2.0) | 478 (11.7) |
| Qatar | 27 (3.1) | 434 (9.5) | 66 (3.5) | 428 (5.5) | 7 (2.0) | 386 (13.7) |
| United Arab Emirates | 27 (2.3) | 465 (5.1) | 59 (2.6) | 433 (3.8) | 14 (1.9) | 412 (7.9) |
| Singapore | 26 (2.4) | 600 (5.4) | 61 (3.0) | 567 (3.7) | 13 (1.8) | 504 (8.4) |
| New Zealand | 26 (2.8) | 552 (5.0) | 64 (3.0) | 533 (3.0) | 10 (1.4) | 492 (7.7) |
| England | 26 (3.8) | 564 (6.5) | 63 (4.1) | 548 (3.7) | 11 (2.7) | 532 (10.9) |
| Northern Ireland | r 26 (3.7) | 573 (5.4) | 68 (3.9) | 557 (3.6) | 6 (2.1) | 541 (9.6) |
| Italy | 25 (2.8) | 542 (4.3) | 54 (3.6) | 541 (3.2) | 20 (3.1) | 544 (4.8) |
| Portugal | 25 (3.5) | 548 (4.3) | 65 (3.9) | 541 (3.3) | 10 (2.1) | 525 (7.6) |
| Saudi Arabia | 25 (3.5) | 432 (9.7) | 63 (4.3) | 434 (5.3) | 13 (2.9) | 405 (17.4) |
| Hong Kong SAR | 22 (4.0) | 577 (6.1) | 68 (4.1) | 573 (2.7) | 10 (2.4) | 541 (9.6) |
| Germany | 21 (2.9) | 557 (4.2) | 69 (3.1) | 542 (2.7) | 10 (1.9) | 505 (8.6) |
| Canada | 21 (2.0) | 562 (4.3) | 65 (2.3) | 547 (2.0) | 14 (1.6) | 529 (3.5) |
| Poland | 20 (2.9) | 534 (4.8) | 71 (3.4) | 525 (2.4) | 10 (2.0) | 514 (7.0) |
| Malta | 19 (0.1) | 503 (3.0) | 64 (0.1) | 479 (1.9) | 17 (0.1) | 444 (3.8) |
| Chinese Taipei | 19 (3.1) | 562 (4.4) | 74 (3.5) | 553 (2.1) | 7 (2.1) | 525 (9.2) |
| Trinidad and Tobago | 19 (3.3) | 477 (11.2) | 67 (4.1) | 474 (4.8) | 14 (2.9) | 452 (8.7) |
| Indonesia | 18 (4.5) | 452 (7.0) | 70 (4.7) | 425 (5.3) | 12 (2.5) | 407 (9.3) |
| Colombia | 18 (3.2) | 462 (10.7) | 60 (4.5) | 448 (6.0) | 22 (3.7) | 437 (7.1) |
| France | 18 (2.4) | 537 (4.1) | 52 (3.6) | 519 (3.8) | 30 (3.1) | 511 (4.2) |
| Lithuania | 16 (2.0) | 544 (4.7) | 74 (2.7) | 527 (2.3) | 10 (2.1) | 516 (5.3) |
| Iran, Islamic Rep. of | 16 (2.6) | 489 (7.8) | 64 (3.7) | 457 (4.3) | 20 (2.9) | 432 (8.5) |
| Bulgaria | 16 (2.7) | 561 (8.2) | 74 (3.0) | 532 (4.3) | 11 (2.1) | 490 (17.2) |
| United States | r 14 (1.9) | 579 (5.0) | 66 (2.1) | 558 (2.2) | 20 (1.7) | 532 (3.6) |
| Morocco | 7 (1.6) | 349 (16.7) | 56 (3.8) | 321 (5.3) | 36 (4.4) | 288 (6.2) |
| International Avg. | 28 (0.5) | 526 (0.9) | 61 (0.5) | 512 (0.5) | 11 (0.3) | 485 (1.6) |

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

A tilde (~) indicates insufficient data to report achievement.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

Exhibit 8.9: Instruction Limited by Students Lacking Prerequisite Knowledge or Skills (Continued)

| Country | Students in Classrooms Where Teachers Report Instruction Is Limited by Students Lacking Prerequisite Knowledge or Skills | | | | | |
|--|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Not At All | | Some | | A Lot | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Sixth Grade Participants | | | | | | |
| Kuwait | 40 (5.0) | 412 (12.0) | 40 (4.9) | 435 (10.0) | 19 (4.2) | 395 (20.6) |
| Honduras | 20 (3.7) | 465 (17.9) | 68 (4.1) | 441 (5.4) | 12 (2.8) | 464 (9.3) |
| Morocco | 10 (1.9) | 434 (11.5) | 53 (4.3) | 428 (7.0) | 37 (4.3) | 410 (6.1) |
| Botswana | 10 (2.5) | 487 (19.5) | 58 (4.0) | 428 (5.2) | 32 (3.7) | 387 (5.5) |
| Benchmarking Participants[◇] | | | | | | |
| Dubai, UAE | 33 (3.0) | 513 (6.0) | 57 (3.0) | 463 (4.4) | 9 (1.7) | 446 (13.9) |
| Quebec, Canada | 27 (3.9) | 552 (4.8) | 58 (4.9) | 534 (2.5) | 15 (2.9) | 523 (4.0) |
| Abu Dhabi, UAE | 24 (4.1) | 443 (8.8) | 60 (4.4) | 421 (7.3) | 15 (3.4) | 407 (15.9) |
| Andalusia, Spain | 23 (3.4) | 524 (5.2) | 63 (3.8) | 519 (3.2) | 13 (2.7) | 480 (6.6) |
| Maltese - Malta | 20 (0.1) | 472 (2.9) | 69 (0.1) | 456 (1.9) | 12 (0.1) | 449 (4.4) |
| Alberta, Canada | 19 (2.9) | 560 (6.4) | 63 (3.5) | 550 (3.7) | 18 (2.6) | 528 (6.7) |
| Ontario, Canada | 19 (3.4) | 563 (6.4) | 64 (4.6) | 551 (3.4) | 16 (3.5) | 529 (6.4) |
| Eng/Afr (5) - RSA | 13 (3.0) | 470 (24.8) | 64 (4.2) | 419 (9.6) | 23 (3.9) | 413 (15.5) |
| Florida, US | 13 (3.4) | 581 (16.8) | 60 (5.9) | 576 (4.2) | 28 (5.0) | 556 (7.2) |

[◇] Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Students in Classrooms Where Teachers Report Instruction Is Limited by Students Lacking Prerequisite Knowledge or Skills | | | | | |
|--------------|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Not At All | | Some | | A Lot | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Colombia | 18 (3.2) | 589 (8.2) | 60 (4.5) | 576 (4.8) | 22 (3.7) | 570 (6.9) |
| South Africa | 11 (2.5) | 460 (19.6) | 63 (3.7) | 459 (5.4) | 26 (3.5) | 466 (7.6) |
| Botswana | 8 (2.2) | 509 (28.7) | 60 (4.1) | 468 (4.6) | 32 (4.1) | 442 (5.5) |

Exhibit 8.10: Instruction Limited by Students Suffering from Lack of Nutrition or Sleep

Reported by Teachers

| Country | Students in Classrooms Where Teachers Report Instruction Is Limited by Students Suffering from Lack of Basic Nutrition | | | | Students in Classrooms Where Teachers Report Instruction Is Limited by Students Suffering from Not Enough Sleep | | | |
|-----------------------|--|---------------------|---------------------|---------------------|---|---------------------|---------------------|---------------------|
| | Not At All | | Some or A Lot | | Not At All | | Some or A Lot | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Australia | r 73 (3.0) | 544 (2.7) | 27 (3.0) | 497 (5.6) | r 33 (3.5) | 546 (4.5) | 67 (3.5) | 524 (4.1) |
| Austria | -- | -- | -- | -- | 42 (3.3) | 536 (2.5) | 58 (3.3) | 524 (2.3) |
| Azerbaijan | 60 (3.2) | 466 (3.8) | 40 (3.2) | 462 (5.4) | 84 (2.9) | 465 (3.4) | 16 (2.9) | 459 (6.0) |
| Belgium (French) | 89 (2.9) | 508 (3.0) | 11 (2.9) | 497 (7.1) | 23 (2.8) | 510 (6.0) | 77 (2.8) | 507 (3.1) |
| Bulgaria | 83 (3.0) | 541 (3.9) | 17 (3.0) | 485 (14.8) | 69 (4.0) | 538 (4.1) | 31 (4.0) | 517 (9.4) |
| Canada | 67 (2.2) | 554 (2.0) | 33 (2.2) | 537 (2.7) | 33 (2.6) | 554 (3.4) | 67 (2.6) | 545 (2.0) |
| Chinese Taipei | 71 (3.7) | 555 (2.3) | 29 (3.7) | 547 (4.3) | 40 (4.0) | 548 (3.0) | 60 (4.0) | 556 (2.6) |
| Colombia | 32 (3.8) | 469 (9.4) | 68 (3.8) | 438 (4.5) | 46 (4.5) | 449 (5.9) | 54 (4.5) | 447 (6.1) |
| Croatia | 83 (2.8) | 553 (2.0) | 17 (2.8) | 553 (6.1) | 44 (3.5) | 549 (2.4) | 56 (3.5) | 557 (2.8) |
| Czech Republic | 99 (0.5) | 545 (2.2) | 1 (0.5) | ~ ~ | 66 (3.4) | 547 (2.7) | 34 (3.4) | 542 (4.0) |
| Denmark | 88 (2.3) | 555 (1.9) | 12 (2.3) | 549 (4.6) | 53 (3.1) | 557 (2.6) | 47 (3.1) | 551 (2.4) |
| England | 77 (2.9) | 557 (3.2) | 23 (2.9) | 529 (5.1) | 37 (4.1) | 564 (5.1) | 63 (4.1) | 542 (3.6) |
| Finland | 91 (2.2) | 570 (1.8) | 9 (2.2) | 553 (5.1) | 41 (3.9) | 573 (2.5) | 59 (3.9) | 565 (2.5) |
| France | 87 (2.6) | 522 (2.5) | 13 (2.6) | 503 (7.7) | 20 (2.5) | 530 (4.5) | 80 (2.5) | 517 (2.9) |
| Georgia | 46 (3.9) | 499 (3.5) | 54 (3.9) | 479 (4.8) | 65 (3.8) | 485 (3.6) | 35 (3.8) | 495 (5.6) |
| Germany | 85 (2.6) | 546 (2.3) | 15 (2.6) | 513 (5.9) | 50 (3.1) | 552 (2.7) | 50 (3.1) | 531 (3.3) |
| Hong Kong SAR | 89 (2.5) | 572 (2.3) | 11 (2.5) | 558 (8.9) | 52 (4.7) | 577 (2.7) | 48 (4.7) | 563 (4.3) |
| Hungary | 76 (3.2) | 546 (3.5) | 24 (3.2) | 514 (6.6) | 47 (3.5) | 550 (4.1) | 53 (3.5) | 528 (4.6) |
| Indonesia | 64 (4.6) | 436 (4.4) | 36 (4.6) | 418 (8.2) | 75 (4.5) | 431 (4.8) | 25 (4.5) | 425 (9.7) |
| Iran, Islamic Rep. of | 30 (3.6) | 483 (5.6) | 70 (3.6) | 447 (3.9) | 41 (3.6) | 464 (4.8) | 59 (3.6) | 453 (4.0) |
| Ireland | 78 (2.9) | 558 (2.5) | 22 (2.9) | 532 (5.0) | 38 (3.8) | 566 (3.2) | 62 (3.8) | 544 (2.8) |
| Israel | 86 (2.9) | 551 (3.3) | 14 (2.9) | 493 (7.7) | 60 (4.0) | 555 (4.1) | 40 (4.0) | 524 (5.7) |
| Italy | 72 (3.4) | 543 (2.7) | 28 (3.4) | 539 (4.8) | 49 (3.9) | 545 (3.0) | 51 (3.9) | 539 (3.4) |
| Lithuania | 81 (2.9) | 530 (2.6) | 19 (2.9) | 521 (4.8) | 51 (3.0) | 532 (3.0) | 49 (3.0) | 525 (2.8) |
| Malta | 88 (0.1) | 482 (1.5) | 12 (0.1) | 439 (5.2) | 73 (0.1) | 482 (1.7) | 27 (0.1) | 463 (3.1) |
| Morocco | 21 (3.0) | 340 (10.5) | 79 (3.0) | 303 (4.8) | 41 (4.1) | 315 (7.5) | 59 (4.1) | 309 (5.6) |
| Netherlands | 87 (2.3) | 549 (2.2) | 13 (2.3) | 527 (4.5) | 45 (3.7) | 550 (2.6) | 55 (3.7) | 543 (3.0) |
| New Zealand | 63 (2.6) | 546 (2.8) | 37 (2.6) | 511 (3.8) | 31 (2.7) | 552 (4.1) | 69 (2.7) | 525 (3.1) |
| Northern Ireland | r 80 (3.1) | 567 (3.0) | 20 (3.1) | 535 (7.3) | r 40 (4.7) | 573 (3.6) | 60 (4.7) | 552 (3.8) |
| Norway | 76 (3.9) | 509 (2.2) | 24 (3.9) | 503 (4.2) | 60 (4.1) | 508 (2.6) | 40 (4.1) | 506 (3.1) |
| Oman | 50 (3.2) | 405 (3.7) | 50 (3.2) | 380 (4.4) | 57 (3.0) | 395 (3.2) | 43 (3.0) | 389 (4.5) |
| Poland | 88 (2.2) | 526 (2.4) | 12 (2.2) | 519 (4.3) | 62 (3.1) | 527 (2.7) | 38 (3.1) | 524 (3.2) |
| Portugal | 86 (3.0) | 543 (3.0) | 14 (3.0) | 529 (7.3) | 67 (3.8) | 544 (3.6) | 33 (3.8) | 535 (4.2) |
| Qatar | 57 (3.8) | 441 (6.2) | 43 (3.8) | 406 (6.2) | 52 (3.5) | 425 (7.2) | 48 (3.5) | 428 (7.3) |
| Romania | 50 (3.6) | 522 (5.2) | 50 (3.6) | 480 (6.6) | 62 (3.8) | 507 (4.4) | 38 (3.8) | 491 (8.1) |
| Russian Federation | 83 (2.6) | 574 (3.1) | 17 (2.6) | 544 (5.3) | 73 (2.7) | 571 (3.3) | 27 (2.7) | 561 (4.2) |
| Saudi Arabia | 44 (3.9) | 437 (6.0) | 56 (3.9) | 424 (6.5) | 32 (3.7) | 443 (6.4) | 68 (3.7) | 424 (5.9) |
| Singapore | 86 (1.8) | 573 (3.4) | 14 (1.8) | 532 (9.8) | 60 (2.8) | 578 (3.8) | 40 (2.8) | 551 (6.2) |
| Slovak Republic | 95 (1.1) | 537 (2.8) | 5 (1.1) | 499 (11.3) | 80 (2.4) | 539 (2.9) | 20 (2.4) | 520 (7.4) |
| Slovenia | 88 (2.0) | 532 (1.9) | 12 (2.0) | 518 (4.9) | 48 (4.5) | 534 (2.6) | 52 (4.5) | 527 (2.6) |
| Spain | 89 (1.8) | 516 (2.7) | 11 (1.8) | 490 (4.8) | 64 (3.3) | 518 (2.9) | 36 (3.3) | 504 (3.9) |
| Sweden | r 96 (1.5) | 542 (2.5) | 4 (1.5) | 548 (11.6) | r 60 (3.7) | 548 (2.6) | 40 (3.7) | 534 (3.6) |
| Trinidad and Tobago | 73 (3.3) | 475 (4.9) | 27 (3.3) | 458 (6.2) | 61 (3.7) | 474 (5.7) | 39 (3.7) | 465 (6.3) |
| United Arab Emirates | 62 (2.2) | 455 (3.3) | 38 (2.2) | 412 (4.4) | 49 (2.5) | 452 (4.0) | 51 (2.5) | 426 (3.8) |
| United States | r 60 (2.6) | 563 (2.2) | 40 (2.6) | 544 (3.2) | r 24 (2.2) | 566 (3.5) | 76 (2.2) | 553 (2.1) |
| International Avg. | 73 (0.4) | 519 (0.6) | 27 (0.4) | 495 (1.0) | 51 (0.5) | 518 (0.6) | 49 (0.5) | 507 (0.7) |

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent. A dash (-) indicates comparable data not available. A tilde (~) indicates insufficient data to report achievement. An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

Exhibit 8.10: Instruction Limited by Students Suffering from Lack of Nutrition or Sleep (Continued)

| Country | Students in Classrooms Where Teachers Report Instruction Is Limited by Students Suffering from Lack of Basic Nutrition | | | | Students in Classrooms Where Teachers Report Instruction Is Limited by Students Suffering from Not Enough Sleep | | | | |
|--|--|---------------------|---------------------|---------------------|---|---------------------|---------------------|---------------------|--|
| | Not At All | | Some or A Lot | | Not At All | | Some or A Lot | | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Sixth Grade Participants | | | | | | | | | |
| Botswana | 57 (3.7) | 440 (6.8) | 43 (3.7) | 395 (4.8) | 39 (4.2) | 438 (7.4) | 61 (4.2) | 408 (5.6) | |
| Honduras | 28 (4.0) | 476 (8.9) | 72 (4.0) | 440 (5.9) | 64 (4.3) | 454 (6.2) | 36 (4.3) | 441 (8.6) | |
| Kuwait | s 64 (4.7) | 417 (9.8) | 36 (4.7) | 418 (10.5) | s 46 (4.8) | 419 (9.7) | 54 (4.8) | 416 (11.2) | |
| Morocco | r 18 (2.3) | 462 (7.9) | 82 (2.3) | 412 (4.9) | r 41 (4.4) | 423 (8.3) | 59 (4.4) | 420 (6.3) | |
| Benchmarking Participants^o | | | | | | | | | |
| Alberta, Canada | 54 (3.7) | 562 (4.0) | 46 (3.7) | 532 (3.5) | 24 (3.0) | 571 (5.4) | 76 (3.0) | 541 (3.2) | |
| Ontario, Canada | 69 (4.5) | 554 (3.3) | 31 (4.5) | 545 (5.3) | 36 (4.2) | 550 (3.7) | 64 (4.2) | 552 (3.5) | |
| Quebec, Canada | 72 (3.5) | 542 (2.5) | 28 (3.5) | 524 (4.2) | 34 (3.6) | 546 (3.3) | 66 (3.6) | 533 (2.4) | |
| Maltese - Malta | r 88 (0.1) | 462 (1.6) | 12 (0.1) | 431 (5.4) | r 79 (0.1) | 462 (1.7) | 21 (0.1) | 441 (3.4) | |
| Eng/Afr (5) - RSA | 41 (4.8) | 456 (14.1) | 59 (4.8) | 404 (10.8) | 41 (5.2) | 435 (14.1) | 59 (5.2) | 418 (10.5) | |
| Andalusia, Spain | 92 (2.3) | 516 (2.5) | 8 (2.3) | 510 (7.7) | 69 (4.0) | 515 (3.2) | 31 (4.0) | 514 (3.6) | |
| Abu Dhabi, UAE | 64 (4.1) | 437 (6.1) | 36 (4.1) | 401 (8.8) | 46 (4.8) | 434 (8.8) | 54 (4.8) | 415 (6.4) | |
| Dubai, UAE | 70 (2.0) | 498 (3.3) | 30 (2.0) | 428 (6.8) | 59 (2.7) | 495 (4.5) | 41 (2.7) | 452 (5.6) | |
| Florida, US | r 73 (5.1) | 577 (4.8) | 27 (5.1) | 555 (6.0) | r 32 (5.5) | 590 (6.7) | 68 (5.5) | 562 (4.8) | |

^o Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

| Country | Students in Classrooms Where Teachers Report Instruction Is Limited by Students Suffering from Lack of Basic Nutrition | | | | Students in Classrooms Where Teachers Report Instruction Is Limited by Students Suffering from Not Enough Sleep | | | |
|--------------|--|---------------------|---------------------|---------------------|---|---------------------|---------------------|---------------------|
| | Not At All | | Some or A Lot | | Not At All | | Some or A Lot | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Botswana | 58 (3.9) | 479 (5.8) | 42 (3.9) | 440 (4.2) | 43 (4.3) | 470 (6.7) | 57 (4.3) | 458 (5.0) |
| Colombia | 32 (3.8) | 591 (7.3) | 68 (3.8) | 569 (4.0) | 46 (4.5) | 576 (4.8) | 54 (4.5) | 576 (5.1) |
| South Africa | 36 (3.0) | 474 (8.7) | 64 (3.0) | 454 (5.1) | 46 (3.3) | 455 (7.0) | 54 (3.3) | 469 (6.6) |

Exhibit 8.11: Instruction Limited by Disruptive or Uninterested Students

Reported by Teachers

| Country | Students in Classrooms Where Teachers Report Instruction Is Limited by Disruptive Students | | | | Students in Classrooms Where Teachers Report Instruction Is Limited by Uninterested Students | | | | | |
|---------------------------|--|---------------------|---------------------|---------------------|--|---------------------|---------------------|---------------------|-----------------|------------------|
| | Some or Not At All | | A Lot | | Some or Not At All | | A Lot | | | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | | |
| Australia | r | 86 (2.7) | 535 (3.2) | 14 (2.7) | 509 (5.2) | r | 95 (1.7) | 533 (2.9) | 5 (1.7) | 503 (11.0) |
| Austria | | 91 (2.0) | 530 (2.1) | 9 (2.0) | 516 (6.4) | | 94 (2.0) | 530 (2.0) | 6 (2.0) | 512 (6.4) |
| Azerbaijan | | 99 (0.7) | 464 (2.9) | 1 (0.7) | ~ ~ | | 97 (1.0) | 465 (3.0) | 3 (1.0) | 435 (12.0) |
| Belgium (French) | | 80 (3.3) | 508 (3.1) | 20 (3.3) | 506 (5.2) | | 80 (3.4) | 511 (2.7) | 20 (3.4) | 491 (7.4) |
| Bulgaria | | 93 (1.8) | 535 (4.1) | 7 (1.8) | 497 (11.1) | | 87 (2.5) | 538 (3.6) | 13 (2.5) | 489 (14.7) |
| Canada | | 82 (1.9) | 551 (1.9) | 18 (1.9) | 538 (3.2) | | 94 (0.9) | 550 (1.8) | 6 (0.9) | 528 (4.0) |
| Chinese Taipei | | 97 (1.6) | 554 (1.9) | 3 (1.6) | 526 (15.3) | | 91 (2.3) | 554 (1.9) | 9 (2.3) | 541 (8.1) |
| Colombia | | 83 (3.3) | 451 (4.8) | 17 (3.3) | 431 (7.3) | | 64 (4.4) | 450 (5.5) | 36 (4.4) | 446 (6.2) |
| Croatia | | 93 (1.9) | 553 (1.9) | 7 (1.9) | 557 (6.4) | | 95 (1.4) | 554 (1.9) | 5 (1.4) | 546 (5.8) |
| Czech Republic | | 89 (2.5) | 547 (2.2) | 11 (2.5) | 535 (9.2) | | 95 (1.6) | 547 (2.1) | 5 (1.6) | 516 (18.7) |
| Denmark | | 89 (2.0) | 555 (1.7) | 11 (2.0) | 545 (6.6) | | 91 (2.0) | 556 (1.7) | 9 (2.0) | 542 (7.1) |
| England | | 91 (1.8) | 553 (2.9) | 9 (1.8) | 525 (9.3) | | 97 (1.5) | 551 (2.9) | 3 (1.5) | 539 (9.6) |
| Finland | | 89 (2.3) | 569 (1.9) | 11 (2.3) | 559 (3.4) | | 97 (0.8) | 568 (1.8) | 3 (0.8) | 564 (12.1) |
| France | | 69 (3.2) | 524 (2.8) | 31 (3.2) | 512 (5.0) | | 72 (2.8) | 526 (2.5) | 28 (2.8) | 505 (5.4) |
| Georgia | | 98 (1.1) | 488 (3.2) | 2 (1.1) | ~ ~ | | 93 (1.9) | 487 (3.4) | 7 (1.9) | 501 (10.1) |
| Germany | | 90 (2.0) | 543 (2.6) | 10 (2.0) | 519 (6.8) | | 97 (1.0) | 541 (2.4) | 3 (1.0) | 533 (5.9) |
| Hong Kong SAR | | 94 (2.0) | 572 (2.2) | 6 (2.0) | 543 (14.3) | | 92 (2.5) | 573 (2.2) | 8 (2.5) | 547 (10.1) |
| Hungary | | 90 (1.9) | 542 (3.3) | 10 (1.9) | 511 (11.7) | | 94 (1.7) | 540 (3.2) | 6 (1.7) | 521 (12.1) |
| Indonesia | | 98 (0.9) | 429 (4.3) | 2 (0.9) | ~ ~ | | 99 (0.5) | 429 (4.3) | 1 (0.5) | ~ ~ |
| Iran, Islamic Rep. of | | 88 (2.4) | 459 (3.1) | 12 (2.4) | 447 (11.1) | | 81 (3.2) | 463 (3.4) | 19 (3.2) | 435 (8.1) |
| Ireland | | 90 (2.4) | 553 (2.2) | 10 (2.4) | 547 (8.2) | | 96 (1.5) | 552 (2.2) | 4 (1.5) | 544 (11.5) |
| Israel | | 84 (3.4) | 546 (3.5) | 16 (3.4) | 529 (10.9) | | 90 (2.5) | 547 (3.3) | 10 (2.5) | 509 (16.2) |
| Italy | | 78 (3.3) | 544 (2.6) | 22 (3.3) | 534 (5.4) | | 89 (2.2) | 544 (2.2) | 11 (2.2) | 525 (10.0) |
| Lithuania | | 80 (2.5) | 528 (2.4) | 20 (2.5) | 530 (5.5) | | 84 (2.7) | 530 (2.4) | 16 (2.7) | 521 (7.1) |
| Malta | | 84 (0.1) | 482 (1.5) | 16 (0.1) | 456 (4.2) | | 90 (0.1) | 481 (1.5) | 10 (0.1) | 447 (5.7) |
| Morocco | | 85 (3.6) | 312 (4.3) | 15 (3.6) | 303 (9.2) | | 67 (4.3) | 319 (4.9) | 33 (4.3) | 294 (5.8) |
| Netherlands | | 95 (1.7) | 547 (2.1) | 5 (1.7) | 537 (7.5) | | 98 (1.2) | 547 (2.0) | 2 (1.2) | ~ ~ |
| New Zealand | | 90 (1.4) | 536 (2.7) | 10 (1.4) | 507 (6.8) | | 96 (1.0) | 534 (2.4) | 4 (1.0) | 512 (13.7) |
| Northern Ireland | r | 95 (2.1) | 560 (2.9) | 5 (2.1) | 554 (10.5) | r | 97 (1.6) | 561 (2.7) | 3 (1.6) | 535 (8.3) |
| Norway | | 91 (2.6) | 508 (2.2) | 9 (2.6) | 501 (7.8) | | 97 (1.5) | 507 (2.1) | 3 (1.5) | 514 (15.7) |
| Oman | | 81 (2.6) | 397 (3.0) | 19 (2.6) | 368 (5.5) | | 80 (2.6) | 395 (3.0) | 20 (2.6) | 378 (5.8) |
| Poland | | 85 (2.6) | 526 (2.4) | 15 (2.6) | 524 (5.8) | | 93 (1.7) | 526 (2.2) | 7 (1.7) | 518 (7.5) |
| Portugal | | 88 (2.3) | 541 (2.9) | 12 (2.3) | 542 (7.9) | | 85 (2.9) | 541 (3.1) | 15 (2.9) | 539 (7.5) |
| Qatar | | 84 (2.6) | 432 (4.3) | 16 (2.6) | 385 (10.2) | | 86 (2.9) | 430 (4.0) | 14 (2.9) | 390 (8.2) |
| Romania | | 98 (0.8) | 501 (4.4) | 2 (0.8) | ~ ~ | | 93 (2.0) | 504 (4.5) | 7 (2.0) | 455 (16.0) |
| Russian Federation | | 94 (1.8) | 569 (3.0) | 6 (1.8) | 556 (8.3) | | 95 (1.8) | 570 (2.7) | 5 (1.8) | 547 (10.7) |
| Saudi Arabia | | 90 (2.6) | 431 (4.5) | 10 (2.6) | 418 (20.1) | | 80 (3.6) | 434 (4.9) | 20 (3.6) | 415 (13.2) |
| Singapore | | 89 (1.9) | 571 (3.5) | 11 (1.9) | 541 (11.0) | | 91 (1.8) | 570 (3.4) | 9 (1.8) | 538 (12.2) |
| Slovak Republic | | 95 (1.2) | 536 (2.9) | 5 (1.2) | 511 (10.4) | | 93 (1.7) | 537 (2.5) | 7 (1.7) | 501 (11.7) |
| Slovenia | | 66 (3.6) | 533 (2.2) | 34 (3.6) | 525 (3.2) | | 84 (2.4) | 531 (2.2) | 16 (2.4) | 526 (4.3) |
| Spain | | 88 (2.6) | 517 (2.7) | 12 (2.6) | 488 (6.9) | | 81 (2.6) | 519 (2.4) | 19 (2.6) | 487 (5.5) |
| Sweden | r | 94 (1.7) | 544 (2.4) | 6 (1.7) | 518 (7.4) | r | 98 (1.0) | 542 (2.3) | 2 (1.0) | ~ ~ |
| Trinidad and Tobago | | 88 (2.4) | 473 (3.9) | 12 (2.4) | 457 (10.6) | | 97 (1.3) | 472 (4.0) | 3 (1.3) | 422 (14.7) |
| United Arab Emirates | | 88 (1.2) | 443 (2.6) | 12 (1.2) | 412 (6.9) | | 89 (1.7) | 443 (2.7) | 11 (1.7) | 402 (8.0) |
| United States | | 84 (1.6) | 560 (1.9) | 16 (1.6) | 535 (3.6) | r | 89 (1.5) | 558 (1.8) | 11 (1.5) | 539 (6.7) |
| International Avg. | | 88 (0.3) | 514 (0.4) | 12 (0.3) | 501 (1.4) | | 90 (0.3) | 515 (0.4) | 10 (0.3) | 494 (1.6) |

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

A tilde (~) indicates insufficient data to report achievement.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

Exhibit 8.11: Instruction Limited by Disruptive or Uninterested Students (Continued)

| Country | Students in Classrooms Where Teachers Report Instruction Is Limited by Disruptive Students | | | | Students in Classrooms Where Teachers Report Instruction Is Limited by Uninterested Students | | | | |
|--|--|---------------------|---------------------|---------------------|--|---------------------|---------------------|---------------------|--|
| | Some or Not At All | | A Lot | | Some or Not At All | | A Lot | | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Sixth Grade Participants | | | | | | | | | |
| Botswana | 89 (2.6) | 423 (4.7) | 11 (2.6) | 403 (12.5) | 82 (3.4) | 425 (5.2) | 18 (3.4) | 401 (8.3) | |
| Honduras | 95 (1.3) | 449 (5.3) | 5 (1.3) | 464 (9.0) | 89 (2.6) | 448 (5.6) | 11 (2.6) | 460 (8.6) | |
| Kuwait | s 80 (3.8) | 418 (8.3) | 20 (3.8) | 413 (18.1) | s 80 (4.2) | 423 (8.8) | 20 (4.2) | 394 (17.6) | |
| Morocco | r 81 (4.8) | 424 (5.2) | 19 (4.8) | 408 (15.8) | r 71 (3.7) | 430 (5.3) | 29 (3.7) | 401 (7.4) | |
| Benchmarking Participants[◇] | | | | | | | | | |
| Alberta, Canada | 85 (3.0) | 551 (3.1) | 15 (3.0) | 534 (6.4) | 93 (2.1) | 549 (3.0) | 7 (2.1) | 532 (9.1) | |
| Ontario, Canada | 81 (3.3) | 553 (2.9) | 19 (3.3) | 540 (5.4) | 95 (1.7) | 552 (2.7) | 5 (1.7) | 532 (10.0) | |
| Quebec, Canada | 77 (3.8) | 539 (2.5) | 23 (3.8) | 530 (3.5) | 90 (2.8) | 539 (2.3) | 10 (2.8) | 524 (5.5) | |
| Maltese - Malta | r 82 (0.1) | 461 (1.5) | 18 (0.1) | 448 (3.6) | r 90 (0.1) | 460 (1.5) | 10 (0.1) | 447 (6.5) | |
| Eng/Afr (5) - RSA | 79 (4.9) | 427 (7.6) | 21 (4.9) | 420 (20.2) | 81 (4.1) | 430 (8.4) | 19 (4.1) | 409 (21.7) | |
| Andalusia, Spain | 92 (1.9) | 518 (2.6) | 8 (1.9) | 477 (9.4) | 84 (3.2) | 520 (2.6) | 16 (3.2) | 487 (6.7) | |
| Abu Dhabi, UAE | 90 (1.8) | 424 (5.3) | 10 (1.8) | 429 (13.6) | 93 (2.0) | 427 (5.1) | 7 (2.0) | 390 (14.9) | |
| Dubai, UAE | 92 (0.8) | 481 (2.8) | 8 (0.8) | 444 (8.3) | 94 (1.6) | 482 (2.5) | 6 (1.6) | 413 (24.5) | |
| Florida, US | r 86 (3.5) | 576 (3.9) | 14 (3.5) | 542 (8.2) | r 82 (4.1) | 577 (4.0) | 18 (4.1) | 541 (8.2) | |

[◇] Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

| Country | Students in Classrooms Where Teachers Report Instruction Is Limited by Disruptive Students | | | | Students in Classrooms Where Teachers Report Instruction Is Limited by Uninterested Students | | | |
|--------------|--|---------------------|---------------------|---------------------|--|---------------------|---------------------|---------------------|
| | Some or Not At All | | A Lot | | Some or Not At All | | A Lot | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Botswana | 90 (2.4) | 465 (4.1) | 10 (2.4) | 447 (8.4) | 75 (3.6) | 470 (4.5) | 25 (3.6) | 441 (8.2) |
| Colombia | 83 (3.3) | 579 (3.8) | 17 (3.3) | 560 (7.7) | 64 (4.4) | 579 (4.4) | 36 (4.4) | 572 (5.4) |
| South Africa | 86 (2.0) | 458 (4.7) | 14 (2.0) | 484 (11.7) | 86 (2.6) | 459 (4.2) | 14 (2.6) | 469 (11.7) |

Exhibit 8.10 presents teachers' reports about the degree to which their instruction is limited by students' lack of nutrition or not having enough sleep. On average, internationally, 73 percent of the fourth grade students were in classrooms where instruction was "not at all" limited because students were lacking in basic nutrition. These fourth grade students had higher average reading achievement than their peers in classrooms where instruction was limited "some" or "a lot" due to lack of basic nutrition (519 vs. 495). It is of considerable concern that 27 percent of fourth grade students, on average, were reported to be suffering from lack of basic nutrition; and this percentage is much higher in some countries, including some of those that participated at the sixth grade and in prePIRLS.

Teachers reported that 51 percent of the fourth grade students, on average, were in classrooms where instruction was "not at all" limited by students suffering from not enough sleep. However, it is rather alarming that 49 percent, on average, were in classrooms where instruction was limited "some" or "a lot" by students suffering from lack of sleep. The achievement gap for sleep deprivation was somewhat less than that related to lack of nutrition, but the fourth grade students suffering from some amount of sleep deprivation did have lower average reading achievement than their more alert counterparts (507 vs. 518). Again, there was considerable variation across countries in teachers' reports about the percentages of fourth grade students suffering from not enough sleep. According to their teachers, in a number of PIRLS 2011 countries and benchmarking participants, the majority of students were at least somewhat sleep deprived.

Instruction Limited by Disruptive or Uninterested Students

The importance of classroom management and maintaining a positive and productive classroom environment is widely recognized as central to high-quality teaching (Bill & Melinda Gates Foundation, 2010). Yet, even the most experienced and effective teachers can encounter discipline problems.

Exhibit 8.11 presents teachers' reports about the extent to which their fourth grade classroom instruction in reading was limited by disruptive or uninterested students. As some good news, internationally, on average, teachers reported their instruction was rarely limited by either disruptive or bored students, with 88 to 90 percent of the fourth grade students in classrooms with some or no problems. The 10 to 12 percent of students in classrooms with a lot of student behavior problems did have lower average reading achievement

(from 13–21 points). Across the fourth grade, sixth grade, benchmarking, and prePIRLS participants, there was some variation in teachers’ reports about disruptive and uninterested students. In general, however, teachers reported that fourth grade students around the world were relatively well behaved and attentive during their reading lessons.

Classroom Resources for Teaching Reading

Resources Teachers Use for Teaching Reading

Exhibit 8.12 contains teachers’ reports about the classroom materials used for teaching reading. On average, internationally, textbooks were used most often as the basis for reading instruction, for 72 percent of the fourth grade students, and workbooks or worksheets were used the next most often, for 40 percent of the students. A variety of children’s books or a reading series was used as the basis of instruction for approximately one-fourth of the fourth grade students, and relying on computer software was relatively rare, used for only eight percent of the students. Teachers reported that all of the materials asked about were used to some extent as a supplementary resources for reading instruction, with the most popular, on average, being a variety of children’s books used with 69 percent of the students, followed by a reading series and workbooks or worksheets used with 56 to 59 percent of the students. Teachers reported using computer software as a supplementary resource for 48 percent of the fourth grade students, on average.

There was considerable variation across countries in the types of materials used as the basis for reading instruction versus being considered as supplementary. For example, some countries used children’s books as the basis for instruction for the majority of their fourth grade students, including Australia, Canada, Denmark, England, France, New Zealand, Northern Ireland, and Sweden. Of these, Australia, France, New Zealand, and Northern Ireland had a dual approach, also using a reading series as a basis for instruction for the majority of their students. The pattern of a variety of approaches to using textbooks, workbooks or worksheets, and children’s books to provide and supplement reading instruction also was evidenced at the sixth grade, and with the benchmarking and prePIRLS participants. For these students, teachers often reported using a reading series and children’s books as supplementary resources in their reading instruction.

Exhibit 8.12: Resources Teachers Use for Teaching Reading

Reported by Teachers

| Country | Percent of Students Whose Teachers Use | | | | | | | | | |
|---------------------------|--|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|---|-----------------|
| | A Variety of Children's Books | | Textbooks | | Reading Series | | Workbooks or Worksheets | | Computer Software for Reading Instruction | |
| | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement |
| Australia | r 61 (4.0) | 39 (4.1) | r 14 (2.7) | 48 (3.6) | r 51 (4.2) | 41 (4.2) | r 16 (2.6) | 80 (3.1) | r 18 (3.2) | 66 (4.2) |
| Austria | 23 (2.6) | 76 (2.6) | 59 (3.2) | 36 (2.9) | 8 (1.9) | 65 (3.6) | 39 (3.3) | 61 (3.3) | 9 (2.0) | 61 (3.6) |
| Azerbaijan | 16 (3.1) | 80 (3.3) | 89 (2.4) | 11 (2.4) | 21 (3.4) | 67 (3.7) | 54 (3.8) | 44 (4.0) | 13 (2.3) | 35 (4.0) |
| Belgium (French) | 36 (4.5) | 58 (4.6) | 36 (4.1) | 51 (4.0) | 12 (2.4) | 61 (3.7) | 40 (4.7) | 49 (4.8) | 1 (0.7) | 14 (3.2) |
| Bulgaria | 4 (1.5) | 94 (1.6) | 98 (0.9) | 2 (0.9) | 10 (2.2) | 89 (2.2) | 61 (3.3) | 39 (3.3) | 0 (0.3) | 20 (2.9) |
| Canada | 61 (2.3) | 39 (2.4) | 33 (2.3) | 50 (3.0) | 25 (2.5) | 55 (2.7) | 27 (2.3) | 65 (2.3) | 6 (1.0) | 51 (2.3) |
| Chinese Taipei | 33 (3.4) | 64 (3.6) | 76 (3.2) | 19 (2.8) | 8 (2.1) | 51 (4.2) | 40 (3.9) | 55 (4.1) | 8 (2.2) | 72 (3.2) |
| Colombia | 45 (4.7) | 50 (4.7) | 56 (4.4) | 42 (4.4) | 27 (4.0) | 51 (4.2) | 41 (4.5) | 55 (4.5) | 10 (2.9) | 37 (4.5) |
| Croatia | 12 (2.2) | 87 (2.3) | 92 (2.0) | 7 (1.9) | 8 (1.8) | 84 (2.2) | 39 (3.6) | 61 (3.6) | 1 (0.5) | 25 (2.8) |
| Czech Republic | 22 (3.5) | 78 (3.5) | 85 (3.1) | 15 (3.1) | 12 (2.9) | 75 (3.6) | 19 (3.2) | 68 (4.0) | 2 (1.0) | 24 (3.3) |
| Denmark | 55 (3.6) | 44 (3.7) | 50 (3.8) | 48 (3.6) | 27 (3.1) | 72 (3.1) | 41 (3.4) | 54 (3.4) | 3 (1.2) | 71 (3.2) |
| England | 83 (2.9) | 17 (2.9) | 20 (3.7) | 62 (4.5) | 29 (3.9) | 45 (4.0) | 9 (2.5) | 77 (3.4) | 17 (3.3) | 54 (3.9) |
| Finland | 22 (2.9) | 77 (2.9) | 86 (2.3) | 12 (2.0) | 8 (1.4) | 73 (2.7) | 53 (3.4) | 44 (3.5) | 2 (0.7) | 60 (3.9) |
| France | 72 (3.0) | 28 (3.0) | 25 (3.1) | 52 (4.1) | 56 (3.0) | 36 (2.8) | 19 (2.9) | 64 (3.3) | 0 (0.3) | 15 (2.3) |
| Georgia | 12 (3.0) | 87 (3.0) | 98 (1.0) | 2 (1.0) | 7 (1.9) | 79 (3.1) | 14 (2.8) | 81 (3.1) | 1 (0.5) | 35 (3.7) |
| Germany | 24 (3.2) | 75 (3.2) | 62 (3.3) | 31 (3.0) | 7 (1.8) | 72 (3.2) | 52 (3.5) | 47 (3.4) | 6 (1.7) | 52 (3.8) |
| Hong Kong SAR | 10 (2.3) | 83 (3.2) | 96 (1.7) | 4 (1.7) | 13 (3.4) | 69 (4.0) | 63 (4.2) | 36 (4.2) | 22 (3.8) | 67 (4.4) |
| Hungary | 5 (1.4) | 93 (1.6) | 97 (1.1) | 3 (1.1) | 5 (1.8) | 81 (2.9) | 76 (2.9) | 24 (2.9) | 3 (1.2) | 39 (3.5) |
| Indonesia | 6 (1.9) | 84 (2.9) | 86 (3.2) | 14 (3.2) | 18 (3.1) | 73 (3.4) | 42 (4.6) | 56 (4.7) | 3 (1.5) | 33 (4.5) |
| Iran, Islamic Rep. of | 6 (1.6) | 84 (3.5) | 86 (3.9) | 14 (3.8) | 12 (2.2) | 61 (3.4) | 10 (2.2) | 71 (2.9) | 1 (0.0) | 20 (2.9) |
| Ireland | 38 (3.4) | 61 (3.4) | 74 (3.2) | 25 (3.2) | 36 (3.4) | 51 (3.6) | 19 (2.8) | 79 (2.9) | 6 (1.6) | 62 (3.3) |
| Israel | 35 (4.1) | 62 (4.1) | 81 (3.2) | 17 (2.8) | -- | -- | 55 (4.4) | 45 (4.4) | 17 (3.6) | 55 (4.4) |
| Italy | 17 (3.1) | 82 (3.1) | 80 (2.9) | 19 (2.8) | 10 (2.1) | 83 (2.5) | 32 (3.3) | 66 (3.5) | 1 (0.0) | 30 (3.3) |
| Lithuania | 9 (1.8) | 90 (1.8) | 97 (1.5) | 3 (1.5) | 5 (1.1) | 87 (2.0) | 68 (3.6) | 30 (3.4) | 2 (0.8) | 57 (3.5) |
| Malta | 24 (0.1) | 72 (0.1) | 86 (0.1) | 13 (0.1) | 59 (0.1) | 34 (0.1) | 45 (0.1) | 50 (0.1) | 16 (0.1) | 55 (0.1) |
| Morocco | 6 (1.6) | 54 (4.1) | 95 (1.9) | 3 (1.8) | 23 (3.9) | 59 (4.7) | 48 (4.4) | 35 (4.2) | r 8 (2.6) | 19 (2.9) |
| Netherlands | 28 (3.0) | 70 (3.0) | 84 (2.7) | 13 (2.6) | 21 (3.3) | 54 (3.9) | 46 (4.3) | 48 (4.2) | 10 (2.3) | 51 (3.6) |
| New Zealand | 51 (3.4) | 48 (3.4) | 14 (2.3) | 38 (2.8) | 84 (2.7) | 16 (2.7) | 14 (2.3) | 81 (2.5) | 9 (1.6) | 73 (2.7) |
| Northern Ireland | r 69 (4.6) | 31 (4.6) | r 30 (3.9) | 66 (4.2) | r 54 (4.2) | 41 (4.2) | r 17 (3.2) | 81 (3.3) | r 9 (2.2) | 73 (4.1) |
| Norway | 26 (3.8) | 73 (3.8) | 81 (4.1) | 19 (4.1) | 35 (4.3) | 61 (4.5) | 54 (4.1) | 45 (4.1) | 12 (3.2) | 64 (4.5) |
| Oman | 10 (1.8) | 83 (2.3) | 95 (1.2) | 4 (1.1) | 30 (3.0) | 69 (3.0) | 36 (3.3) | 62 (3.3) | 10 (2.3) | 46 (2.7) |
| Poland | 11 (2.3) | 89 (2.3) | 85 (2.8) | 15 (2.8) | 56 (3.5) | 44 (3.5) | 57 (3.5) | 43 (3.4) | 0 (0.0) | 53 (3.8) |
| Portugal | 32 (4.7) | 67 (4.7) | 67 (5.0) | 33 (5.0) | 32 (3.7) | 63 (3.8) | 50 (4.7) | 49 (4.6) | 10 (2.3) | 63 (4.6) |
| Qatar | 19 (2.6) | 72 (3.1) | 77 (3.3) | 19 (3.4) | 18 (3.9) | 61 (4.9) | 55 (3.6) | 43 (3.6) | 26 (3.1) | 49 (4.0) |
| Romania | 11 (2.3) | 87 (2.5) | 94 (1.5) | 6 (1.5) | 22 (3.2) | 78 (3.2) | 43 (3.9) | 57 (3.9) | 3 (1.4) | 45 (4.0) |
| Russian Federation | 7 (1.9) | 93 (2.0) | 95 (1.6) | 5 (1.6) | 2 (1.1) | 90 (2.4) | 22 (3.0) | 65 (3.5) | 2 (0.8) | 47 (3.2) |
| Saudi Arabia | 18 (3.6) | 75 (4.0) | 99 (0.8) | 1 (0.8) | 9 (2.6) | 54 (4.6) | 72 (3.5) | 28 (3.5) | 19 (3.1) | 54 (4.2) |
| Singapore | 13 (1.8) | 82 (2.0) | 78 (2.4) | 11 (1.9) | 18 (2.3) | 60 (2.7) | 71 (2.4) | 29 (2.4) | 13 (1.4) | 68 (2.5) |
| Slovak Republic | 9 (1.7) | 91 (1.7) | 92 (1.7) | 8 (1.7) | 6 (1.8) | 29 (2.9) | 24 (2.7) | 73 (2.8) | 1 (0.6) | 52 (3.6) |
| Slovenia | 21 (3.3) | 79 (3.3) | 76 (3.0) | 22 (2.9) | 89 (2.8) | 10 (2.8) | 61 (3.9) | 38 (4.0) | 1 (0.9) | 51 (3.9) |
| Spain | 23 (2.8) | 74 (2.8) | 66 (3.4) | 34 (3.4) | 32 (2.7) | 64 (2.8) | 22 (2.8) | 75 (2.8) | 1 (0.6) | 51 (4.0) |
| Sweden | r 53 (3.7) | 46 (3.7) | r 45 (4.6) | 50 (4.4) | r 37 (4.3) | 50 (4.3) | r 30 (4.3) | 66 (4.4) | r 6 (2.1) | 58 (4.1) |
| Trinidad and Tobago | 14 (2.9) | 84 (3.1) | 55 (4.2) | 45 (4.1) | 61 (3.8) | 35 (3.5) | 26 (3.5) | 73 (3.6) | 5 (1.4) | 33 (4.0) |
| United Arab Emirates | 23 (1.8) | 70 (2.1) | 86 (1.6) | 12 (1.6) | 38 (2.5) | 52 (2.5) | 50 (2.2) | 49 (2.2) | 22 (2.1) | 48 (2.2) |
| United States | r 47 (2.5) | 51 (2.5) | r 46 (2.8) | 40 (2.5) | r 47 (2.9) | 36 (2.2) | r 19 (2.1) | 75 (2.2) | r 9 (1.5) | 65 (2.7) |
| International Avg. | 27 (0.4) | 69 (0.5) | 72 (0.4) | 23 (0.4) | 27 (0.4) | 59 (0.5) | 40 (0.5) | 56 (0.5) | 8 (0.3) | 48 (0.5) |

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

A dash (-) indicates comparable data not available.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Percent of Students Whose Teachers Use | | | | | | | | | |
|--|--|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|---|-----------------|
| | A Variety of Children's Books | | Textbooks | | Reading Series | | Workbooks or Worksheets | | Computer Software for Reading Instruction | |
| | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement |
| Sixth Grade Participants | | | | | | | | | | |
| Botswana | 10 (2.2) | 82 (3.1) | 74 (4.3) | 26 (4.3) | 7 (2.5) | 80 (3.6) | 19 (3.5) | 43 (4.8) | 1 (0.9) | 9 (2.6) |
| Honduras | 26 (4.7) | 54 (4.6) | 82 (3.6) | 17 (3.5) | 27 (4.4) | 59 (4.4) | 34 (4.6) | 56 (4.7) | 10 (2.8) | 22 (3.5) |
| Kuwait | s 9 (2.4) | 77 (4.5) | s 94 (2.3) | 6 (2.3) | s 24 (4.7) | 69 (5.1) | s 76 (4.8) | 22 (4.9) | s 11 (3.2) | 38 (4.2) |
| Morocco | r 12 (2.6) | 56 (4.1) | r 94 (1.6) | 5 (1.5) | r 26 (5.1) | 58 (5.0) | r 51 (4.7) | 32 (4.2) | s 9 (2.4) | 27 (5.0) |
| Benchmarking Participants[◇] | | | | | | | | | | |
| Alberta, Canada | 67 (3.9) | 33 (3.9) | 18 (2.6) | 54 (3.9) | 26 (3.7) | 48 (3.8) | 10 (2.4) | 78 (3.0) | 7 (2.1) | 61 (3.7) |
| Ontario, Canada | 62 (4.3) | 38 (4.3) | 28 (3.9) | 61 (4.2) | 32 (3.9) | 58 (4.1) | 16 (3.2) | 76 (3.8) | 7 (2.2) | 59 (4.1) |
| Quebec, Canada | 36 (4.7) | 63 (4.7) | 62 (4.7) | 32 (4.6) | 17 (3.7) | 61 (4.5) | 60 (3.5) | 38 (3.5) | 2 (1.1) | 24 (3.6) |
| Maltese - Malta | s 27 (0.2) | 64 (0.2) | s 83 (0.1) | 13 (0.1) | s 57 (0.2) | 34 (0.2) | s 46 (0.2) | 43 (0.2) | s 12 (0.1) | 42 (0.1) |
| Eng/Afr (5) - RSA | r 27 (5.3) | 62 (6.2) | 68 (5.1) | 31 (5.0) | r 37 (4.4) | 53 (5.1) | 59 (5.5) | 40 (5.5) | r 9 (4.2) | 42 (5.7) |
| Andalusia, Spain | 28 (3.9) | 71 (3.8) | 67 (3.8) | 33 (3.7) | 34 (4.3) | 66 (4.3) | 29 (3.8) | 68 (3.9) | 1 (0.5) | 34 (4.0) |
| Abu Dhabi, UAE | 22 (3.5) | 71 (4.1) | 88 (2.9) | 11 (2.8) | 39 (4.7) | 49 (4.8) | 54 (4.3) | 46 (4.3) | 22 (3.6) | 49 (4.5) |
| Dubai, UAE | r 28 (2.6) | 68 (2.7) | r 71 (3.7) | 26 (3.7) | r 36 (2.7) | 57 (2.3) | r 32 (2.5) | 65 (2.5) | r 17 (2.1) | 59 (2.8) |
| Florida, US | r 46 (5.3) | 54 (5.3) | r 49 (6.0) | 43 (5.2) | r 56 (5.7) | 33 (5.3) | r 13 (3.5) | 82 (4.4) | r 22 (4.1) | 73 (4.9) |

[◇] Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Percent of Students Whose Teachers Use | | | | | | | | | |
|--------------|--|-----------------|--------------------------|-----------------|--------------------------|-----------------|--------------------------|-----------------|---|-----------------|
| | A Variety of Children's Books | | Textbooks | | Reading Series | | Workbooks or Worksheets | | Computer Software for Reading Instruction | |
| | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement | As Basis for Instruction | As a Supplement |
| Botswana | 14 (3.0) | 77 (3.7) | 68 (3.9) | 32 (3.9) | 13 (2.6) | 74 (3.6) | 15 (3.0) | 52 (4.3) | 2 (1.0) | 3 (1.5) |
| Colombia | 45 (4.7) | 50 (4.7) | 56 (4.4) | 42 (4.4) | 27 (4.0) | 51 (4.2) | 41 (4.5) | 55 (4.5) | 10 (2.9) | 37 (4.5) |
| South Africa | 25 (3.5) | 64 (3.7) | 60 (3.4) | 39 (3.4) | r 42 (3.7) | 50 (3.8) | 63 (3.0) | 33 (2.6) | 4 (1.3) | 20 (2.6) |

Classroom Libraries

Having students read books and a variety of different types of materials is fundamental to developing their reading comprehension skills and strategies. Consistent with the abundant research on this topic (e.g., the work pioneered by Jeanne Chall), a number of educational institutions and systems have invested in classroom libraries so that children can have ready access to books and magazines as part of their reading lessons and activities.

Exhibit 8.13 presents teachers' reports about the role of classroom libraries in their reading instruction. There was substantial variation in the results, from countries where almost all students (95–99%) had classroom libraries to countries where only about one-third (30–39%) of students had classroom libraries. This highlights the need to consider the results in Exhibit 8.13 together with the results about school libraries presented in Exhibit 5.7, because some countries concentrate on resourcing and promoting the use of school libraries, some concentrate on classroom libraries, and some concentrate on both.

Internationally, on average, 72 percent of the fourth grade students had classroom libraries and their average reading achievement was higher than their counterparts in classrooms without libraries (514 vs. 507). About one-third of the fourth grade students, on average, had classroom libraries with more than 50 books and about one-third had classroom libraries with at least three magazines.

Interestingly, there may be more availability than actual use of classroom libraries. In comparison to 72 percent of the fourth grade students, on average, having classroom libraries, only 60 percent of the students were given time to use the classroom library at least weekly and just 56 percent could borrow books from it.

According to their teachers, about two-thirds of the fourth grade students, on average, also visited libraries other than the classroom library at least monthly.

Computer Activities During Reading Lessons

According to the *PIRLS 2011 Encyclopedia*, countries are investing in technology as a way to enhance teaching and learning. Technology's role in reading instruction is becoming more important as students increasingly use the Internet to locate information for their assignments across different school subjects as well as in everyday life. According to some researchers, making meaning from electronic texts can be a complex task and requires skills, such as media literacy, that sometimes have been referred to as “new literacies” (Leu, 2009). Also,

there has been tremendous growth in the availability of sophisticated software that facilitates student learning in reading comprehension strategies (e.g., the Improving Comprehension Online (ICON) project).

Exhibit 8.14 contains teachers' reports about the prevalence and types of computer-based activities used as part of reading instruction. Computer availability during reading lessons varied greatly across countries, from 2 percent of the students in Belgium (French-speaking community) to 88 percent in Norway. Internationally, on average, less than half (45%) of the fourth grade students had computers available for their reading lessons. Interestingly, average reading achievement was equivalent between those fourth grade students with computers available and those without computers available.

Teachers reported that 38 percent of students, on average, were asked to look up information on the computer at least monthly. Considering other computer activities that occurred at least monthly, somewhat smaller percentages of students were asked to use the computer to read stories or texts or write stories or texts (32% in both cases). Teachers reported using instructional software to develop reading skills and strategies with 29 percent of the fourth grade students, on average. The range in computer availability across the benchmarking participants reflected the fourth grade results across countries. However, the students participating at the sixth grade and in prePIRLS had less access to computers for reading instruction than did the fourth grade PIRLS students, on average.

Exhibit 8.13: Classroom Libraries
Reported by Teachers

For information about school libraries, see Exhibit 5.7

| Country | Have a Classroom Library | | | Percent of Students | | | | |
|---------------------------|--------------------------|---------------------|------------------|--|--|--|---|--|
| | Percent of Students | Average Achievement | | With More than 50 Books in Their Classroom Library | With At Least 3 Magazine Titles in Their Classroom Library | Given Class Time to Use Classroom Library At Least Once a Week | Who Can Borrow Books From Classroom Library | Whose Teachers Take Them to Library Other than the Classroom Library At Least Once a Month |
| | | Yes | Yes | | | | | |
| United States | r 99 (0.7) | 557 (1.8) | ~ ~ | r 92 (1.3) | r 36 (2.5) | r 98 (0.8) | r 88 (1.6) | r 95 (1.3) |
| New Zealand | 99 (0.5) | 534 (2.2) | ~ ~ | 29 (3.2) | 37 (3.3) | 99 (0.5) | 62 (2.9) | 94 (1.3) |
| Ireland | 98 (0.8) | 552 (2.3) | ~ ~ | 87 (2.6) | 18 (2.6) | 94 (1.5) | 87 (2.4) | 42 (3.9) |
| Northern Ireland | r 97 (1.5) | 561 (2.9) | 532 (33.7) | r 89 (2.6) | r 35 (4.2) | r 91 (2.6) | r 88 (3.2) | r 61 (4.5) |
| Canada | 95 (1.8) | 547 (1.7) | 566 (18.7) | 80 (2.0) | 48 (2.6) | 94 (1.8) | 70 (2.7) | 93 (1.7) |
| Hong Kong SAR | 95 (2.5) | 572 (2.6) | 542 (8.0) | 75 (4.3) | 42 (4.5) | 75 (4.0) | 61 (4.5) | 53 (4.4) |
| Singapore | 92 (1.2) | 565 (3.5) | 586 (12.1) | 44 (2.8) | 32 (2.5) | 76 (2.1) | 73 (2.2) | 60 (2.3) |
| Chinese Taipei | 92 (2.4) | 553 (2.1) | 554 (4.7) | 73 (3.8) | 40 (4.2) | 74 (3.6) | 75 (3.2) | 78 (2.7) |
| Australia | r 91 (2.1) | 533 (3.2) | 521 (8.9) | r 48 (3.8) | r 35 (4.4) | r 89 (2.3) | r 54 (3.6) | r 93 (2.2) |
| Spain | 91 (2.0) | 514 (2.6) | 509 (4.7) | 37 (3.0) | 24 (2.9) | 78 (2.7) | 80 (2.7) | 51 (3.1) |
| Malta | 90 (0.1) | 474 (1.6) | 505 (4.7) | 49 (0.1) | 35 (0.1) | 82 (0.1) | 76 (0.1) | 75 (0.1) |
| Israel | 89 (2.6) | 549 (3.3) | 490 (15.4) | 33 (4.0) | 35 (4.1) | 84 (3.0) | 75 (3.9) | 72 (4.1) |
| Belgium (French) | 89 (2.3) | 510 (3.0) | 490 (11.4) | 63 (3.7) | 75 (3.3) | 78 (3.1) | 57 (3.3) | 43 (4.6) |
| France | 87 (2.4) | 522 (2.7) | 509 (6.7) | 51 (3.8) | 56 (3.3) | 77 (3.1) | 63 (3.2) | 52 (3.7) |
| England | 87 (2.9) | 549 (3.0) | 560 (10.2) | 70 (4.0) | 22 (3.6) | 85 (3.3) | 73 (3.9) | 62 (4.6) |
| Lithuania | 87 (2.3) | 529 (2.2) | 524 (6.4) | 24 (3.1) | 40 (3.1) | 74 (3.3) | 82 (2.7) | 82 (2.9) |
| Netherlands | 86 (2.6) | 545 (2.3) | 556 (4.3) | 59 (3.9) | 33 (3.4) | 85 (2.6) | 14 (2.7) | 48 (5.0) |
| Germany | 82 (2.8) | 539 (2.3) | 550 (4.7) | 34 (3.3) | 24 (2.8) | 66 (3.5) | 70 (3.3) | 54 (3.5) |
| Hungary | 80 (2.3) | 542 (3.3) | 527 (7.0) | 13 (2.3) | 17 (2.6) | 75 (2.7) | 56 (3.3) | 76 (3.2) |
| Austria | 78 (2.8) | 529 (2.2) | 527 (4.0) | 39 (3.7) | 20 (2.7) | 70 (3.3) | 70 (3.0) | 62 (3.7) |
| Russian Federation | 77 (2.4) | 571 (2.9) | 558 (5.8) | 36 (3.4) | 50 (3.8) | 41 (4.3) | 76 (2.5) | 85 (3.0) |
| Italy | 73 (3.2) | 544 (2.6) | 534 (3.7) | 25 (3.0) | 17 (3.0) | 47 (3.0) | 70 (3.4) | 41 (3.5) |
| Qatar | 73 (2.7) | 421 (5.2) | 435 (6.6) | 17 (3.3) | 33 (3.6) | 43 (4.1) | 52 (5.1) | 67 (3.5) |
| Azerbaijan | 71 (3.4) | 463 (3.2) | 460 (7.6) | 10 (2.4) | 54 (4.0) | 64 (4.0) | 70 (3.5) | 91 (2.1) |
| Trinidad and Tobago | 69 (3.5) | 469 (5.2) | 474 (7.7) | 13 (2.8) | 26 (3.8) | 66 (3.6) | 39 (3.9) | 64 (4.0) |
| Romania | 69 (4.0) | 499 (5.3) | 504 (7.8) | 15 (3.0) | 49 (4.2) | 59 (4.2) | 66 (4.0) | 86 (2.4) |
| Slovak Republic | 69 (3.3) | 538 (2.7) | 528 (5.0) | 10 (2.0) | 29 (3.2) | 49 (3.4) | 55 (3.3) | 49 (3.1) |
| Portugal | 67 (3.9) | 542 (3.6) | 538 (4.1) | 14 (2.9) | 23 (3.2) | 59 (4.1) | 56 (4.3) | 67 (4.1) |
| Poland | 65 (4.1) | 525 (2.5) | 527 (3.7) | 8 (1.8) | 28 (3.1) | 42 (4.0) | 50 (4.2) | 85 (2.7) |
| Norway | 60 (4.3) | 507 (2.9) | 505 (2.9) | 18 (3.1) | 22 (3.7) | 57 (4.4) | 39 (4.6) | 89 (2.3) |
| Slovenia | 59 (3.8) | 528 (2.5) | 533 (3.1) | 4 (1.4) | 26 (3.0) | 42 (3.0) | 40 (3.9) | 84 (2.8) |
| United Arab Emirates | r 59 (2.6) | 444 (3.4) | 430 (4.6) | r 14 (1.8) | r 31 (2.4) | r 46 (2.7) | r 45 (2.6) | r 83 (2.0) |
| Indonesia | 58 (3.9) | 431 (5.3) | 425 (6.5) | 45 (4.5) | 43 (4.2) | 44 (4.3) | 49 (4.3) | 62 (4.3) |
| Czech Republic | 55 (3.6) | 544 (3.0) | 546 (2.8) | 14 (2.5) | 20 (3.7) | 37 (3.7) | 43 (3.5) | 40 (3.7) |
| Georgia | 54 (3.9) | 492 (3.9) | 482 (5.0) | 7 (2.1) | 31 (3.8) | 43 (4.0) | 53 (4.0) | 73 (3.5) |
| Iran, Islamic Rep. of | 53 (3.9) | 465 (4.7) | 448 (4.9) | 17 (2.6) | 16 (2.8) | 37 (3.7) | 50 (3.9) | 49 (3.4) |
| Sweden | r 52 (4.2) | 540 (3.0) | 546 (3.8) | r 28 (3.5) | r 10 (2.6) | r 50 (4.3) | r 44 (4.2) | r 80 (3.3) |
| Finland | 51 (3.8) | 566 (2.6) | 570 (2.5) | 22 (3.0) | 13 (2.3) | 42 (3.7) | 25 (3.0) | 70 (3.2) |
| Croatia | 51 (3.9) | 555 (2.3) | 551 (2.6) | 10 (1.8) | 41 (3.6) | 30 (3.4) | 41 (3.8) | 79 (2.6) |
| Bulgaria | 49 (3.9) | 538 (5.7) | 526 (5.8) | 3 (0.9) | 20 (2.5) | 27 (3.3) | 39 (4.2) | 77 (3.3) |
| Oman | 41 (2.8) | 406 (4.2) | 380 (3.7) | 4 (1.1) | 20 (2.6) | 35 (2.6) | 34 (2.9) | 68 (2.9) |
| Saudi Arabia | 39 (4.0) | 447 (9.1) | 420 (6.0) | 5 (2.1) | 22 (3.1) | 21 (4.0) | 35 (4.2) | 48 (3.7) |
| Denmark | 38 (3.6) | 558 (3.0) | 552 (2.2) | 5 (1.5) | 7 (1.7) | 31 (3.2) | 26 (3.3) | 94 (1.5) |
| Colombia | 37 (4.1) | 436 (7.0) | 453 (5.5) | 13 (2.6) | 25 (3.8) | 34 (4.0) | 27 (3.9) | 55 (4.0) |
| Morocco | 30 (4.2) | 317 (9.3) | 306 (5.2) | 4 (2.1) | 14 (2.6) | r 13 (3.5) | 22 (3.5) | 10 (2.1) |
| International Avg. | 72 (0.5) | 514 (0.6) | 507 (1.3) | 32 (0.4) | 31 (0.5) | 60 (0.5) | 56 (0.5) | 68 (0.5) |

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

A tilde (~) indicates insufficient data to report achievement.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

Exhibit 8.13: Classroom Libraries (Continued)

| Country | Have a Classroom Library | | | Percent of Students | | | | |
|---------|--------------------------|---------------------|-----|--|--|--|---|--|
| | Percent of Students | Average Achievement | | With More than 50 Books in Their Classroom Library | With At Least 3 Magazine Titles in Their Classroom Library | Given Class Time to Use Classroom Library At Least Once a Week | Who Can Borrow Books From Classroom Library | Whose Teachers Take Them to Library Other than the Classroom Library At Least Once a Month |
| | | Yes | Yes | | | | | |

Sixth Grade Participants

| | | | | | | | | |
|----------|------------|------------|------------|-----------|------------|------------|------------|------------|
| Botswana | 83 (3.1) | 417 (5.0) | 441 (11.5) | 24 (3.6) | 52 (4.5) | 78 (3.3) | 65 (4.3) | 74 (3.8) |
| Honduras | 52 (4.7) | 459 (8.3) | 437 (7.1) | 15 (3.4) | 30 (4.1) | 41 (4.1) | 30 (4.9) | 40 (4.1) |
| Morocco | r 30 (3.7) | 453 (5.5) | 408 (5.7) | r 6 (1.9) | r 17 (3.0) | r 13 (2.4) | r 24 (3.5) | r 12 (2.2) |
| Kuwait | s 26 (4.3) | 444 (13.1) | 414 (8.5) | s 2 (1.3) | s 11 (2.8) | s 3 (1.5) | s 18 (3.7) | s 70 (4.8) |

Benchmarking Participants⁰

| | | | | | | | | |
|-------------------|-------------|------------|------------|------------|------------|------------|------------|------------|
| Florida, US | s 100 (0.0) | 570 (3.9) | ~ ~ | s 92 (2.5) | s 41 (4.8) | s 96 (2.0) | s 94 (2.3) | s 96 (2.3) |
| Quebec, Canada | 99 (0.9) | 538 (2.2) | ~ ~ | 68 (4.4) | 49 (4.8) | 95 (1.9) | 63 (4.7) | 95 (1.9) |
| Alberta, Canada | 98 (1.0) | 548 (3.1) | ~ ~ | 87 (2.5) | 44 (3.8) | 95 (1.7) | 76 (3.1) | 93 (2.1) |
| Ontario, Canada | 94 (2.5) | 550 (2.8) | 557 (13.8) | 79 (4.3) | 50 (4.3) | 94 (2.6) | 75 (4.4) | 94 (1.4) |
| Andalusia, Spain | 92 (2.3) | 515 (2.5) | 514 (7.9) | 38 (4.2) | 19 (3.3) | 75 (3.6) | 81 (3.4) | 46 (4.6) |
| Maltese - Malta | s 88 (0.1) | 455 (1.7) | 476 (4.6) | s 52 (0.2) | s 32 (0.2) | s 77 (0.1) | s 76 (0.2) | s 75 (0.2) |
| Dubai, UAE | r 72 (2.3) | 485 (4.5) | 456 (6.9) | r 16 (2.3) | r 30 (2.8) | r 62 (2.6) | r 55 (3.0) | r 88 (1.6) |
| Eng/Afr (5) - RSA | 71 (5.4) | 436 (10.1) | 401 (16.9) | 29 (4.8) | 40 (5.1) | 67 (5.6) | 50 (5.7) | 63 (5.1) |
| Abu Dhabi, UAE | 54 (4.9) | 426 (8.5) | 425 (8.5) | 14 (3.2) | 25 (4.2) | 40 (4.6) | 43 (4.4) | 84 (3.6) |

⁰ Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Have a Classroom Library | | | Percent of Students | | | | |
|---------|--------------------------|---------------------|-----|--|--|--|---|--|
| | Percent of Students | Average Achievement | | With More than 50 Books in Their Classroom Library | With At Least 3 Magazine Titles in Their Classroom Library | Given Class Time to Use Classroom Library At Least Once a Week | Who Can Borrow Books From Classroom Library | Whose Teachers Take Them to Library Other than the Classroom Library At Least Once a Month |
| | | Yes | Yes | | | | | |

| | | | | | | | | |
|--------------|----------|-----------|------------|----------|----------|----------|----------|----------|
| Botswana | 80 (3.5) | 464 (4.1) | 460 (10.8) | 18 (3.3) | 52 (4.6) | 77 (3.5) | 51 (4.4) | 64 (3.3) |
| South Africa | 70 (3.8) | 471 (5.3) | 438 (6.3) | 30 (4.0) | 45 (4.5) | 57 (4.2) | 51 (3.8) | 46 (3.5) |
| Colombia | 37 (4.1) | 568 (5.7) | 581 (4.6) | 13 (2.6) | 25 (3.8) | 34 (4.0) | 27 (3.9) | 55 (4.0) |

Exhibit 8.14: Computer Activities During Reading Lessons

Reported by Teachers

| Country | Computers Available for Reading Lessons | | | Percent of Students Whose Teachers Have Them Use Computers At Least Monthly | | | |
|-----------------------|---|---------------------|-----------|---|--------------------------------|---------------------------------|--|
| | Percent of Students | Average Achievement | | To Look Up Information | To Read Stories or Other Texts | To Write Stories or Other Texts | To Develop Reading Skills and Strategies with Instructional Software |
| | Yes | Yes | No | | | | |
| Norway | 88 (2.5) | 507 (2.2) | 506 (4.4) | 79 (3.2) | 54 (4.9) | 77 (3.8) | 68 (3.6) |
| Denmark | 87 (2.0) | 553 (1.9) | 564 (3.9) | 76 (2.6) | 65 (2.7) | 83 (2.3) | 54 (3.5) |
| New Zealand | 86 (2.2) | 534 (2.4) | 532 (8.8) | 83 (2.4) | 70 (2.9) | 79 (2.7) | 55 (3.0) |
| Netherlands | 85 (2.6) | 546 (2.4) | 549 (3.0) | 78 (3.4) | 55 (4.1) | 68 (3.5) | 48 (4.3) |
| Australia | r 82 (2.9) | 533 (3.3) | 525 (6.4) | r 76 (3.2) | r 68 (3.4) | r 74 (3.2) | r 58 (3.5) |
| Austria | 79 (3.3) | 529 (2.0) | 529 (3.9) | 60 (3.4) | 51 (3.2) | 42 (3.4) | 59 (3.2) |
| United States | r 74 (2.2) | 554 (2.0) | 562 (3.8) | r 61 (2.4) | r 53 (2.3) | r 49 (2.4) | r 55 (2.6) |
| Sweden | r 73 (3.8) | 543 (2.5) | 544 (4.5) | r 64 (4.2) | r 44 (4.3) | r 65 (4.1) | r 43 (4.8) |
| Malta | 73 (0.1) | 461 (1.7) | 512 (3.1) | 65 (0.1) | 63 (0.1) | 59 (0.1) | 49 (0.1) |
| Germany | 73 (2.8) | 544 (2.5) | 534 (4.5) | 54 (3.2) | 42 (3.3) | 37 (3.2) | 45 (3.4) |
| Northern Ireland | r 65 (4.2) | 559 (3.1) | 562 (5.6) | r 61 (4.3) | r 51 (4.4) | r 63 (4.2) | r 40 (4.8) |
| Finland | 64 (3.1) | 568 (2.3) | 569 (2.9) | 59 (3.6) | 41 (3.3) | 53 (3.4) | 34 (3.4) |
| Singapore | 64 (2.8) | 563 (4.6) | 572 (4.8) | 58 (2.7) | 51 (2.8) | 47 (2.8) | 47 (2.7) |
| Ireland | 56 (3.7) | 555 (2.9) | 548 (3.5) | 50 (3.9) | 42 (3.7) | 43 (3.7) | 30 (3.4) |
| Qatar | 53 (3.3) | 409 (6.3) | 440 (6.1) | 51 (3.5) | 49 (3.2) | 44 (4.3) | 48 (3.2) |
| Chinese Taipei | 48 (3.9) | 553 (2.5) | 553 (2.8) | 36 (3.8) | 39 (3.7) | 20 (2.9) | 37 (3.5) |
| Portugal | 47 (5.3) | 542 (4.4) | 540 (4.0) | 45 (5.4) | 41 (5.3) | 44 (5.4) | 36 (5.2) |
| England | 47 (4.0) | 547 (4.1) | 555 (4.2) | 43 (4.2) | 34 (4.5) | 40 (4.1) | 26 (4.1) |
| Canada | 46 (2.5) | 550 (2.4) | 547 (2.2) | 43 (2.4) | 34 (2.6) | 40 (2.5) | 24 (2.2) |
| United Arab Emirates | 45 (2.4) | 439 (4.0) | 439 (3.8) | r 41 (2.5) | r 41 (2.4) | r 33 (2.5) | r 37 (2.5) |
| Hong Kong SAR | 45 (4.7) | 569 (3.7) | 572 (3.7) | 38 (4.6) | 36 (4.6) | 10 (2.9) | 34 (4.6) |
| Lithuania | 45 (3.9) | 529 (4.0) | 528 (3.0) | 41 (4.2) | 36 (3.9) | 32 (3.3) | 33 (3.5) |
| Azerbaijan | 42 (3.8) | 461 (5.0) | 463 (5.6) | 30 (3.8) | 28 (3.7) | 29 (3.7) | 30 (3.8) |
| Israel | 40 (4.2) | 547 (5.6) | 539 (4.1) | 37 (4.1) | 35 (4.2) | 35 (3.7) | 31 (3.9) |
| Czech Republic | 39 (4.5) | 544 (4.0) | 546 (2.4) | 33 (4.3) | 22 (3.6) | 15 (3.3) | 16 (3.2) |
| Hungary | 38 (3.5) | 530 (6.0) | 544 (3.8) | 35 (3.5) | 29 (3.5) | 12 (2.4) | 18 (2.8) |
| Indonesia | 37 (4.6) | 430 (7.5) | 429 (5.5) | 14 (3.1) | 13 (3.2) | 9 (2.8) | 12 (2.4) |
| Slovak Republic | 37 (3.5) | 539 (3.0) | 532 (3.8) | 32 (3.3) | 32 (3.2) | 26 (3.0) | 23 (2.9) |
| Slovenia | 36 (3.7) | 534 (3.2) | 528 (2.7) | 32 (3.5) | 25 (3.0) | 23 (3.0) | 22 (2.9) |
| Colombia | 32 (4.5) | 446 (8.6) | 447 (4.8) | 25 (4.1) | 24 (3.9) | 26 (4.2) | 25 (4.1) |
| Saudi Arabia | 31 (4.2) | 436 (8.9) | 428 (5.3) | 24 (4.2) | 24 (3.9) | 21 (4.1) | 26 (4.1) |
| Russian Federation | 29 (3.6) | 568 (7.1) | 568 (2.3) | 24 (2.8) | 20 (2.5) | 23 (2.7) | 20 (3.0) |
| Trinidad and Tobago | 27 (3.4) | 469 (7.4) | 472 (4.6) | 14 (2.7) | 16 (2.7) | 11 (2.7) | 13 (2.7) |
| Romania | 25 (3.4) | 502 (9.6) | 500 (4.7) | 21 (3.3) | 20 (3.4) | 17 (3.0) | 19 (3.2) |
| Italy | 24 (2.9) | 539 (4.0) | 542 (2.6) | 14 (2.4) | 15 (2.5) | 18 (2.6) | 14 (2.3) |
| Spain | 20 (2.9) | 510 (6.1) | 513 (2.4) | 17 (2.8) | 12 (2.4) | 13 (2.5) | 13 (2.8) |
| Oman | 20 (2.2) | 403 (5.8) | 388 (3.2) | 15 (2.0) | 13 (1.9) | 12 (1.8) | 12 (1.8) |
| Poland | 20 (3.0) | 524 (4.8) | 526 (2.4) | 19 (2.9) | 16 (3.0) | 12 (2.6) | 9 (2.4) |
| Georgia | 18 (2.8) | 491 (6.6) | 486 (3.8) | 17 (2.8) | 15 (2.7) | 11 (2.6) | 12 (2.5) |
| Bulgaria | 17 (2.5) | 531 (11.3) | 532 (4.3) | 15 (2.4) | 16 (2.6) | 10 (1.8) | 6 (1.5) |
| Croatia | 14 (2.1) | 551 (4.9) | 553 (2.0) | 13 (2.0) | 12 (2.1) | 10 (1.7) | 5 (1.2) |
| France | 11 (2.0) | 521 (10.0) | 520 (2.6) | 10 (1.7) | 5 (1.2) | 9 (1.7) | 4 (1.0) |
| Morocco | 11 (2.3) | 325 (12.5) | 307 (4.4) | 5 (1.2) | 3 (0.8) | 2 (0.7) | 4 (1.1) |
| Iran, Islamic Rep. of | 9 (2.2) | 494 (11.6) | 453 (3.4) | 6 (1.8) | 6 (1.8) | 5 (1.6) | 5 (1.7) |
| Belgium (French) | 2 (1.0) | ~ ~ | 508 (2.9) | 1 (0.8) | 1 (0.5) | 1 (0.6) | 1 (0.6) |
| International Avg. | 45 (0.5) | 513 (0.9) | 513 (0.6) | 38 (0.5) | 32 (0.5) | 32 (0.5) | 29 (0.5) |

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

() Standard errors appear in parentheses. Because of rounding some results may appear inconsistent.

An "r" indicates data are available for at least 70% but less than 85% of the students. An "s" indicates data are available for at least 50% but less than 70% of the students.

Exhibit 8.14: Computer Activities During Reading Lessons (Continued)

| Country | Computers Available for Reading Lessons | | | Percent of Students Whose Teachers Have Them Use Computers At Least Monthly | | | | |
|--|---|---------------------|------------|---|--------------------------------|---------------------------------|--|--|
| | Percent of Students | Average Achievement | | To Look Up Information | To Read Stories or Other Texts | To Write Stories or Other Texts | To Develop Reading Skills and Strategies with Instructional Software | |
| | Yes | Yes | No | | | | | |
| Sixth Grade Participants | | | | | | | | |
| Kuwait | s 29 (4.8) | 409 (14.2) | 424 (9.2) | s 23 (4.6) | s 24 (4.3) | s 23 (4.5) | s 25 (4.7) | |
| Honduras | 19 (3.6) | 487 (11.4) | 439 (5.4) | 15 (3.3) | 15 (3.3) | 13 (3.1) | 12 (2.8) | |
| Morocco | r 17 (2.9) | 436 (14.7) | 418 (4.9) | r 9 (1.8) | r 7 (1.6) | r 5 (1.3) | r 6 (1.6) | |
| Botswana | 6 (2.1) | 452 (26.6) | 419 (4.1) | 2 (1.4) | 2 (1.4) | 2 (1.4) | 2 (1.4) | |
| Benchmarking Participants[◊] | | | | | | | | |
| Florida, US | s 91 (2.9) | 569 (4.1) | 583 (13.8) | s 79 (4.5) | s 78 (4.6) | s 58 (5.2) | s 81 (4.0) | |
| Alberta, Canada | 61 (4.4) | 547 (3.9) | 549 (4.7) | 58 (4.5) | 50 (4.3) | 57 (4.7) | 36 (4.3) | |
| Maltese - Malta | s 58 (0.2) | 452 (2.3) | 461 (3.0) | s 44 (0.2) | s 40 (0.2) | s 43 (0.2) | s 27 (0.1) | |
| Dubai, UAE | r 53 (2.3) | 482 (4.2) | 478 (5.4) | r 50 (2.4) | r 48 (2.4) | r 38 (2.1) | r 41 (2.0) | |
| Ontario, Canada | 47 (4.5) | 552 (4.0) | 550 (3.3) | 42 (4.3) | 32 (4.3) | 42 (4.5) | 28 (4.4) | |
| Abu Dhabi, UAE | 43 (4.6) | 420 (9.7) | 430 (7.6) | 37 (4.9) | 37 (4.9) | 32 (4.2) | 36 (4.5) | |
| Eng/Afr (5) - RSA | 39 (6.1) | 440 (14.3) | 419 (11.5) | r 24 (5.6) | r 22 (5.0) | r 15 (4.5) | r 19 (4.5) | |
| Quebec, Canada | 30 (3.8) | 540 (4.9) | 536 (2.5) | 26 (3.6) | 22 (3.5) | 21 (3.4) | 8 (2.4) | |
| Andalusia, Spain | 20 (3.3) | 518 (5.9) | 514 (2.9) | 17 (3.2) | 13 (2.8) | 9 (2.2) | 10 (2.6) | |

[◊] Republic of South Africa (RSA) tested 5th grade students receiving instruction in English (ENG) or Afrikaans (AFR).

SOURCE: IEA's Progress in International Reading Literacy Study – PIRLS 2011

| Country | Computers Available for Reading Lessons | | | Percent of Students Whose Teachers Have Them Use Computers At Least Monthly | | | |
|--------------|---|---------------------|-----------|---|--------------------------------|---------------------------------|--|
| | Percent of Students | Average Achievement | | To Look Up Information | To Read Stories or Other Texts | To Write Stories or Other Texts | To Develop Reading Skills and Strategies with Instructional Software |
| | Yes | Yes | No | | | | |
| Colombia | 32 (4.5) | 572 (6.7) | 577 (4.1) | 25 (4.1) | 24 (3.9) | 26 (4.2) | 25 (4.1) |
| South Africa | 22 (2.5) | 489 (11.1) | 454 (4.8) | 9 (1.6) | 9 (1.4) | 7 (1.5) | 10 (1.6) |
| Botswana | 4 (1.8) | 493 (12.0) | 462 (3.8) | 2 (1.0) | 2 (1.0) | 1 (1.0) | 2 (1.0) |

