

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)	

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 8.1: Students Like Reading (Continued)

PIRLS 2011 4th Grade

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

prePIRLS 2011 4th Grade

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)

What do you think about reading? Tell how much you agree with each of these statements.

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

1) I read only if I have to* -----○-----○-----○-----○

2) I like talking about what I read with other people -----○-----○-----○-----○

3) I would be happy if someone gave me a book as a present -----○-----○-----○-----○

4) I think reading is boring* -----○-----○-----○-----○

5) I would like to have more time for reading -----○-----○-----○-----○

6) I enjoy reading -----○-----○-----○-----○

* Reverse coded

Like Reading Somewhat Like Reading Do Not Like Reading

11.0 8.2

How often do you do these things outside of school?

Every day or almost every day Once or twice a week Once or twice a month Never or almost never

1) I read for fun -----○-----○-----○-----○

2) I read things that I choose myself -----○-----○-----○-----○

Like Reading Somewhat Like Reading Do Not Like Reading

11.0 8.2

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.

Exhibit 8.2: Students Motivated to Read (Continued)

PIRLS 2011 4th Grade

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).

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)

Do you read for any of the following reasons? Tell how much you agree with each of these statements.

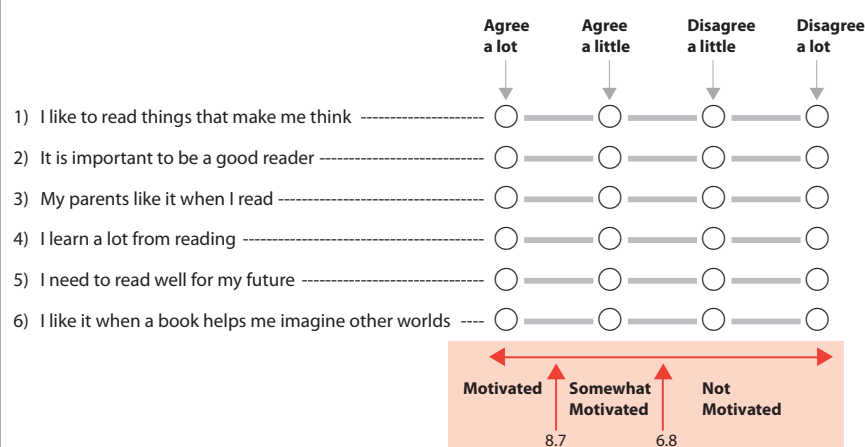


Exhibit 8.3: Students Confident in Reading

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.

Exhibit 8.3: Students Confident in Reading (Continued)
PIRLS 2011 4th Grade

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 ⁰							
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)

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 Study – PIRLS 2011

prePIRLS 2011 4th Grade

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)

How well do you read? Tell how much you agree with each of these statements.

	Agree a lot	Agree a little	Disagree a little	Disagree a lot
1) I usually do well in reading -----	☐	☐	☐	☐
2) Reading is easy for me -----	☐	☐	☐	☐
3) Reading is harder for me than for many of my classmates* -----	☐	☐	☐	☐
4) If a book is interesting, I don't care how hard it is to read -----	☐	☐	☐	☐
5) I have trouble reading stories with difficult words* -----	☐	☐	☐	☐
6) My teacher tells me I am a good reader -----	☐	☐	☐	☐
7) Reading is harder for me than any other subject* -----	☐	☐	☐	☐

* Reverse coded

Confident Somewhat Confident Not Confident

10.6 7.9

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

^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	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 $\times$ Principal Reports of Instructional Hours per Day

Language Instructional Hours per Year = $\frac{\text{Teacher Reports of Weekly Language Instructional Hours}}{\text{Principal Reports of School Days per Week}}$ $\times$ 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.

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

Exhibit 8.5: Collaborate to Improve Teaching (Continued)
PIRLS 2011 4th Grade

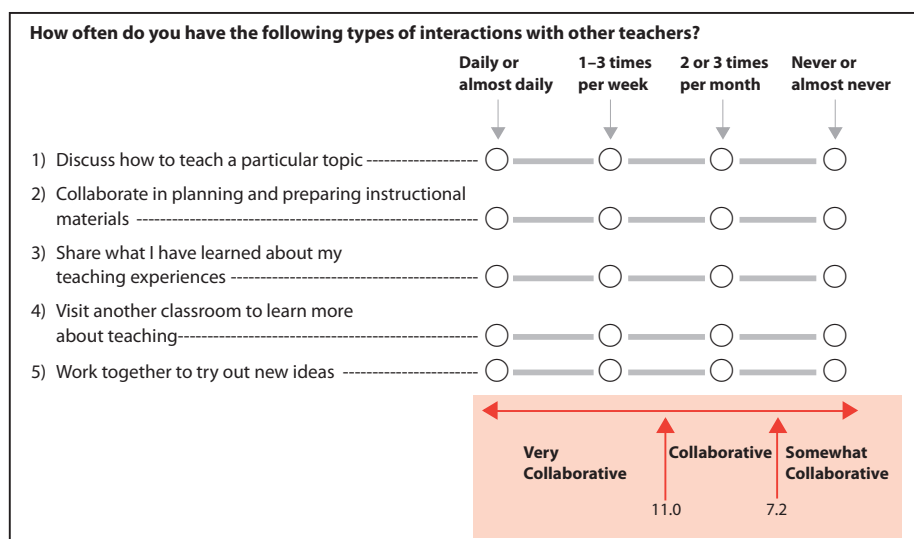
Country	Very Collaborative		Collaborative		Somewhat Collaborative		Average Scale Score	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement		
Sixth Grade Participants								
Kuwait	s	65 (4.6)	421 (7.3)	34 (4.5)	411 (15.1)	1 (0.0)	~ ~	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	r	22 (3.9)	437 (15.0)	38 (3.4)	421 (8.0)	40 (4.7)	412 (8.5)	8.4 (0.32)
Benchmarking Participants [‡]								
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	r	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	r	14 (0.1)	447 (2.8)	47 (0.2)	458 (2.6)	38 (0.2)	464 (2.3)	8.1 (0.01)

^Δ 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

prePIRLS 2011 4th Grade

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	78 (3.7)	559 (3.1)	21 (3.8)	565 (6.6)	1 (0.6)	~ ~	9.8 (0.13)
Australia	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	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)
PIRLS 2011 ^{4th} Grade

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 [◇]							
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)

[◇] 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

prePIRLS 2011 ^{4th} Grade

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)

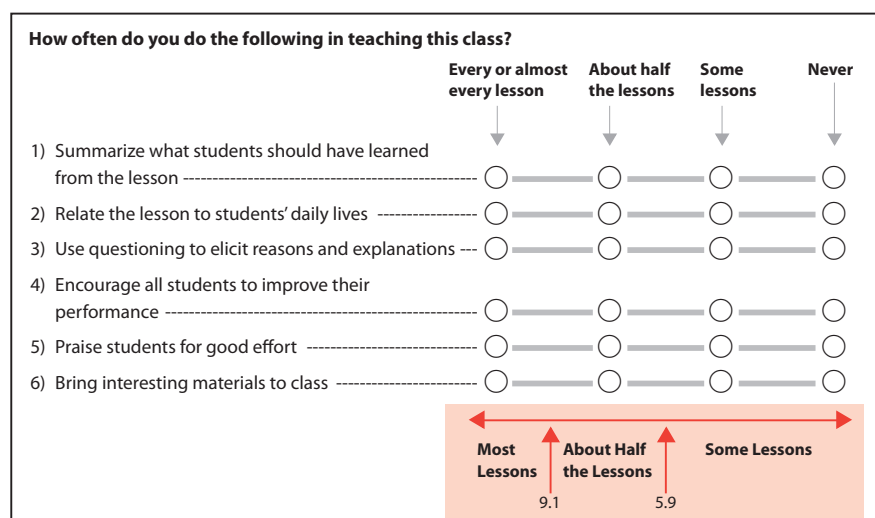


Exhibit 8.7: Students Engaged in Reading Lessons

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)	

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.

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

Exhibit 8.7: Students Engaged in Reading Lessons (Continued)
PIRLS 2011 4th Grade

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 Participants ⁰							
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

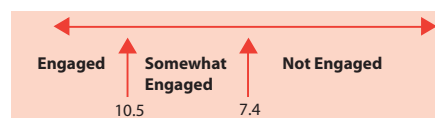
prePIRLS 2011 4th Grade

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



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

PIRLS 2011 4th Grade

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)

() 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.

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

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

PIRLS 2011 4th Grade

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 Participants⁰

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)

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

prePIRLS 2011 4th Grade

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)

PIRLS 2011 4th Grade

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

prePIRLS 2011 4th Grade

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

PIRLS 2011 4th Grade

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 60 (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)

() 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.

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

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

PIRLS 2011 4th Grade

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).

prePIRLS 2011 4th Grade

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)

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

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.

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						No					
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)

() 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 8.13: Classroom Libraries (Continued)
PIRLS 2011 ^{4th}
Grade

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	No					

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).

prePIRLS 2011 ^{4th}
Grade

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	No					

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)

() 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.

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

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					
	Yes	Yes	No	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

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).

Country	Computers Available for Reading Lessons			Percent of Students Whose Teachers Have Them Use Computers At Least Monthly			
	Percent of Students	Average Achievement					
	Yes	Yes	No	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

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)

