



Chapter 5

School Curriculum and Organization for Teaching Reading

As described in the PIRLS 2001 Encyclopedia,¹ there is a great deal of diversity in how countries arrange their educational systems to provide reading instruction in the primary school. Chapter 5 brings together reports from the teachers and parents of fourth-grade students and from school principals to describe, in particular, the school curriculum and organization for teaching reading.

Specifically, this chapter summarizes the emphasis of preprimary education and reading readiness, schools' emphasis on reading in the curriculum, the amount of time devoted to language and reading instruction, the organization and sizes of classes for reading instruction, and strategies for working with students having difficulties learning to read.

The information reported in this chapter was collected via questionnaires to the parents, teachers, and school principals of the students participating in PIRLS. Because the sampling was based on participating students, when the information from the parents, teachers, or principals is being reported, the student is always the unit of analysis. That is, the data shown are the percentages of students whose parents, teachers, or school principals reported on various activities or characteristics. Using the student as the unit of analysis makes it possible to focus on students' experiences in learning to read in school, and is consistent with the PIRLS goals of providing information about the educational contexts and performance of students.

For reporting purposes, the information provided by parents, teachers, and school principals is tied directly to the students tested. Sometimes, however, respondents did not complete the questionnaire assigned to them, so most countries had some percentage of students for whom no questionnaire information is available. The exhibits in this chapter have special notations on

Parents' reports on the number of years their fourth-grade child attended preschool or kindergarten are summarized in Exhibit 5.1. Almost all countries make provision for at least one year of preprimary education – only in Iran and Turkey did the majority of students not attend preschool. Two-fifths of the students, on average, had parents reporting that the student had at least two years of preprimary education. Countries where two-thirds or more of the students were in this category included France, Germany, Hong Kong, Hungary, and Italy. Internationally, average reading achievement was lowest among students not attending preschool (491 score points), and highest among those who attended for more than two years (523 points).

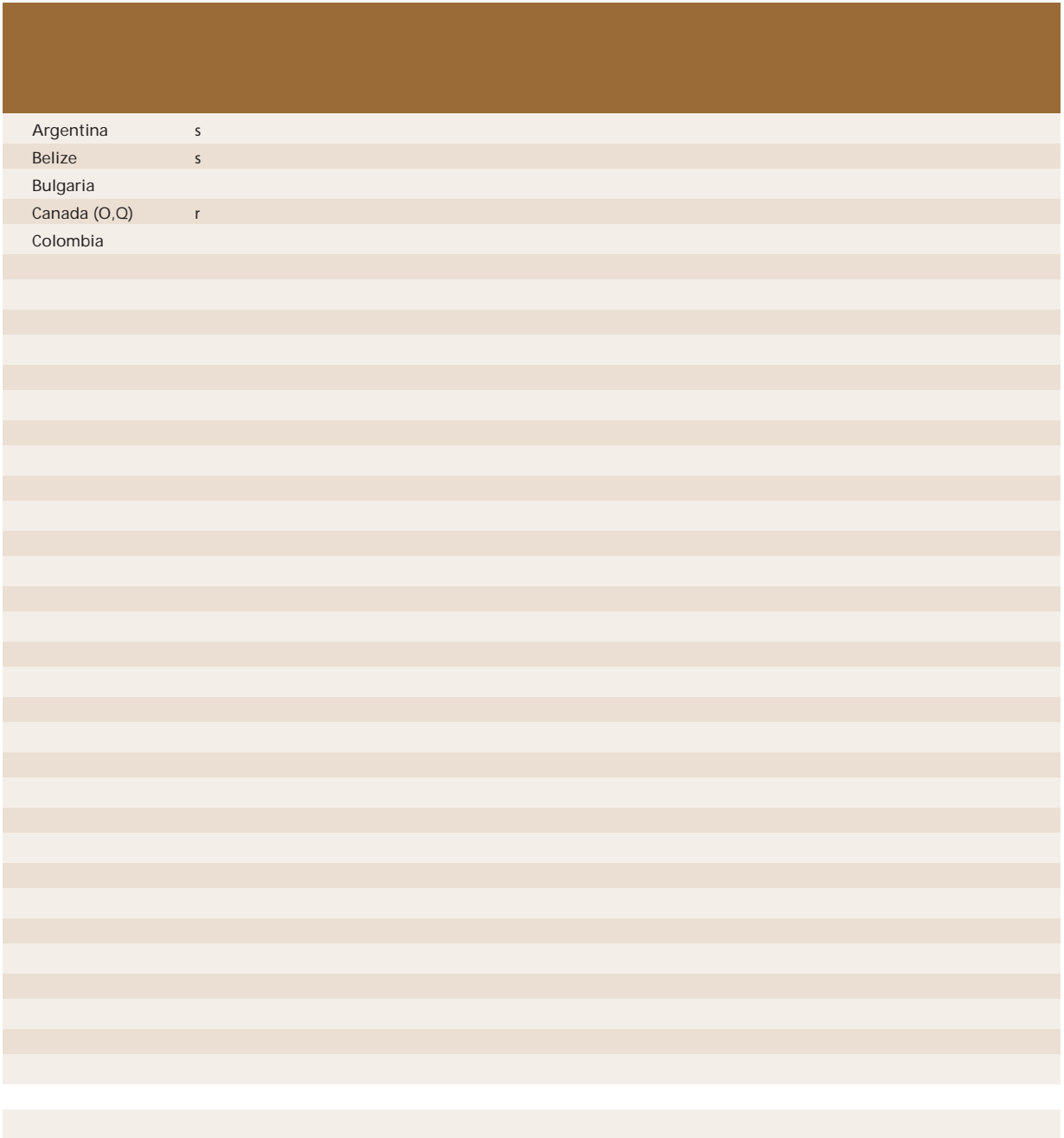
Students in the PIRLS countries mostly began primary education when they were six or seven years old, as shown in Exhibit 5.2, although in England, New Zealand, and Scotland almost all students began when they were five or younger. There is no clear relationship between age of entry to primary schooling and fourth-grade reading achievement. Among the top-performing countries on the PIRLS reading assessment, for example, the students in The Netherlands started primary school when they were six, and those in England when they were five. Among low-performing countries there was also a range of starting ages, with students in Belize mostly starting when they were five or younger, those in Argentina when they were six, and those in Iran when they were six or seven.

Regardless of when they begin primary school, a more important issue from the perspective of the school is whether incoming students are ready to begin learning in a formal setting. PIRLS asked school principals to estimate how many students beginning the first year of school could:

- Recognize most of the alphabet
- Read some words
- Read sentences



Figure 5.2 Progress in Reading Literacy Skills



Argentina	s
Belize	s
Bulgaria	
Canada (O,Q)	r
Colombia	

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS), 2001.



- Write letters of the alphabet
- Write some words.

To

5.4

(75%)

Argentina	22 (3.6)	12 (3.1)	14 (3.2)	14 (3.3)	10 (2.9)
Belize	r 7 (3.9)	3 (1.7)	5 (3.7)	6 (3.8)	4 (3.6)
Bulgaria	21 (3.1)	11 (2.7)	7 (1.7)	3 (1.3)	1 (0.0)
Canada (O,Q)	51 (3.4)	45 (3.7)	32 (3.1)	27 (3.2)	6 (1.5)
Colombia	30 (4.7)	27 (4.8)	26 (4.8)	23 (4.3)	14 (3.2)
Cyprus	r 1 (1.1)	r 3 (2.6)	r 0 (0.0)	r 2 (1.3)	r 0 (0.0)
Czech Republic	2 (1.1)	2 (1.1)	0 (0.0)	0 (0.0)	0 (0.0)
England	r 58 (5.9)	r 55 (5.5)	r 64 (5.3)	r 44 (4.8)	r 29 (4.7)
France	29 (4.0)	40 (5.2)	25 (3.9)	24 (4.0)	3 (1.6)
Germany	1 (1.0)	4 (1.7)	1 (0.7)	2 (1.3)	0 (0.0)
Greece	10 (2.7)	6 (2.2)	2 (1.1)	2 (1.4)	1 (0.0)
Hong Kong, SAR	--	--	93 (2.2)	92 (2.4)	86 (3.2)
Hungary	1 (0.7)	4 (1.7)	0 (0.0)	0 (0.0)	0 (0.0)
Iceland	r 34 (0.4)	r 20 (0.4)	r 3 (0.1)	r 6 (0.2)	r 0 (0.0)
Iran, Islamic Rep. of	5 (1.5)	5 (1.4)	3 (1.3)	3 (1.2)	2 (0.9)
Israel	16 (3.0)	14 (3.1)	7 (2.1)	5 (2.0)	6 (1.8)
Italy	16 (2.4)	15 (2.8)	2 (1.1)	3 (1.3)	2 (1.1)
Kuwait	13 (3.8)	12 (3.5)	10 (3.3)	10 (3.2)	7 (2.6)
Latvia	38 (4.3)	12 (2.4)	19 (3.5)	6 (2.0)	5 (2.0)
Lithuania	21 (3.2)	9 (2.0)	8 (2.2)	4 (1.7)	2 (1.2)
Macedonia, Rep. of	27 (3.9)	17 (3.3)	7 (2.4)	4 (1.6)	3 (1.6)
Moldova, Rep. of	37 (3.9)	27 (3.7)	17 (3.3)	14 (3.4)	13 (3.2)



SOURCE: IEA Progress in International Reading Literacy Study (PIRLS), 2001.

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
 An "r" indicates data are available for 70-84% of the students. An "s" indicates data are available for 50-69% of the students. An "x" indicates data are available for less than 50% of the students.

A dash (-) indicates data are not available. A tilde (~) indicates insufficient data to report achievement.

parents had a more positive view. More than half the students (54%), on average, had parents that reported their child could do the literacy activities moderately or very well at the time they began school, and only 17 percent had parents reporting that they could not do them at all. The highest level was in Singapore, where half the students had parents reporting that they could do the activities very well.

Par

Table 5.6 Progress in Reading Literacy (PIRLS) 2001

Country	2001	2006	2011	2016	2021
Argentina	s 24 (1.3)	s 27 (1.3)	s 15 (0.8)	s 22 (1.1)	s 11 (0.7)
Belize	s 29 (1.5)	s 29 (1.4)	s 15 (1.0)	s 18 (1.3)	s 11 (1.1)
Bulgaria	49 (1.4)	38 (1.2)	25 (1.0)	21 (0.9)	14 (0.8)
Canada (O,Q)	r 56 (0.9)	r 40 (1.0)	r 25 (0.8)	r 20 (0.7)	r 13 (0.7)
Colombia	29 (1.2)	r 30 (1.3)	r 18 (1.0)	r 24 (1.0)	r 16 (0.8)
Cyprus	s 24 (1.2)	s 27 (1.0)	s 17 (1.0)	s 19 (0.8)	s 13 (0.9)
Czech Republic	20 (0.9)	12 (0.7)	8 (0.6)	4 (0.4)	5 (0.4)
England	s 43 (1.5)	s 30 (1.3)	s 25 (1.3)	s 18 (1.3)	s 12 (0.9)
France	41 (1.0)	38 (1.4)	31 (1.0)	25 (0.9)	14 (0.8)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2001.

Table 5.7 Grade by Which Skill or Strategy Is Emphasized for at Least 50% of the Students*

ISC
4th Grade
PIRLS 2001

Countries	Grade by Which Skill or Strategy Is Emphasized for at Least 50% of the Students*					
	Knowing Alphabet	Knowing Letter-Sound Relationships	Reading Words	Reading Isolated Sentences	Reading Connected Text	Identifying Main Text Idea
Argentina	1	1	1	1	2	2
Belize	r 1	r 1	r 1	r 1	r 2	r 3
Bulgaria	1	1	1	1	1	2
Canada (O,Q)	1	1	1	1	1	2
Colombia	1	1	1	1	2	3
Cyprus	r 1	r 1	r 1	r 1	r 1	r 2
Czech Republic	1	1	1	1	2	2
England	1	1	1	1	1	1
France	1	1	1	1	1	2
Germany	1	1	1	1	1	2
Greece	1	1	1	1	1	3
Hong Kong, SAR	–	–	1	1	2	3
Hungary	1	1	1	1	2	2
Iceland	r 1	r 1	r 1	r 1	r 1	r 2
Iran, Islamic Rep. of	1	1	1	1	2	3
Israel	1	1	1	1	1	2
Italy	1	1	1	1	2	2
Kuwait	1	1	1	r 2	3	4
Latvia	1	1	1	r 1	r 1	r 2
Lithuania	1	1	1	1	r 1	r 2
Macedonia, Rep. of	1	1	1	1	r 1	r 2
Moldova, Rep. of	1	1	1	1	r 2	r 2
Morocco	1	1	1	1	2	4
Netherlands	1	1	1	1	r 1	r 2
New Zealand	1	1	1	1	1	1
Norway	2	2	2	2	2	3
Romania	1	1	1	1	r 1	r 2
Russian Federation	1	1	1	1	1	1
Scotland	1	1	1	1	1	2
Singapore	1	1	1	1	1	2
Slovak Republic	1	1	1	1	2	2
Slovenia	1	1	1	1	1	2
Sweden	1	1	1	1	2	2
Turkey	1	1	1	1	1	2
United States	1	1	1	1	1	2
International Avg.	1	1	1	1	1	2

*N = Not by Grade 4

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2001.

Background data provided by schools.

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

An "r" indicates data are available for 70-84% of the students. An "s" indicates data are available for 50-69% of the students. An "x" indicates data are available for less than 50% of the students.

A dash (-) indicates data are not available. A tilde (~) indicates insufficient data to report achievement.

Figure 5.7 Grade by Which Skill or Strategy Is Emphasized (Average Grade)

Grade by Which Skill or Strategy Is Emphasized									
Country	1	2	3	4	5	6	7	8	9
Argentina		2	3						
Belize	r	3	r	3	r				r
Bulgaria		2	2						
Canada (O,Q)		2	2						
Colombia		3	4						
Cyprus	r	2	r	2	r	r	r	r	r
Czech Republic		2	2						
England		1	2						
France		2	3						
Germany		2	2						
Greece		2	2						
Hong Kong, SAR		3	4						N
Hungary		2	2						
Iceland	r	2	s	3	s	r	r	r	N
Iran, Islamic Rep. of		3	4						
Israel		1	2						
Italy		2	2						
Kuwait		4	r	4	r				N
Latvia	r	2	r	2	s	r	r	r	
Lithuania	r	2	r	2	r	r	r	r	
Macedonia, Rep. of	r	2	3						
Moldova, Rep. of	r	2	r	2	r	r	r		
Morocco		4	4		N	N	N	N	
Netherlands	r	2	r	3	r	r	r	r	
New Zealand		1	1						
Norway		3	3						N
Romania	r	2	r	3	r	r			
Russian Federation		1	2						
Scotland		2	2						
Singapore		2	2						
Slovak Republic		2	3						
Slovenia		2	3						N
Sweden		2	2						
Turkey		2	3						
United States		2	1						
International Avg.		2	2	3					

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS), 2001.

the text did not receive major emphasis until the third grade in most countries. Describing text style and structure first got major emphasis in some countries at fourth grade, but for many others it was an activity that occurred more often at higher grade levels.

To further explore schools' emphasis on reading in the curriculum, PIRLS asked teachers how often they had their fourth-grade students do a range of classroom activities to help develop reading comprehension skills or strategies. Exhibit 5.8 presents the percent of students in classes where teachers asked them to do these activities at least weekly. On average, across countries, the most commonly used classroom activities for students were identifying the main idea and explaining or supporting their understanding of what they had read, with 90 percent of students in classes where the teacher asked them to do each of these at least weekly. Next most common was comparing what they had read with their own experiences (73%), and making generalizations and drawing inferences (71%), followed by making predictions about what will happen next (61%), compare what they had read with other things they had read (59%), and describing text style or structure (52%).

Schools may have a range of policies and procedures in place to promote reading instruction throughout the school. According to principals' reports summarized in Exhibit 5.9, schools varied widely in the extent to which they had a policy to coordinate reading instruction across the primary school grades (grades 4 and below). In Argentina, Bulgaria, England, Hungary, Iceland, Macedonia, the Russian Federation, Scotland, and the United States a policy of coordination was quite common, with more than 70 percent of students in schools that coordinate reading instruction, whereas coordination across the grades was much less frequently reported in Germany, Norway, and the Slovak

Figure 5.8 Progress in Reading Literacy Skills, 2001

Country	2001	2006	2011	2016	2019	2020	2021
Argentina	87 (3.7)	88 (3.3)	71 (5.0)	70 (5.0)	63 (4.4)	58 (5.0)	57 (5.0)
Belize	95 (1.9)	90 (2.9)	80 (3.9)	70 (5.2)	86 (3.1)	63 (6.8)	45 (5.5)
Bulgaria	100 (0.0)	99 (0.6)	90 (2.4)	75 (3.5)	71 (3.8)	97 (1.4)	74 (3.6)
Canada (O,Q)	88 (2.1)	87 (2.5)	69 (3.4)	51 (3.6)	80 (2.2)	71 (3.3)	46 (3.3)
Colombia	89 (3.3)	87 (2.9)	67 (4.5)	65 (4.2)	59 (4.9)	55 (4.7)	44 (4.9)
Cyprus	92 (2.5)	93 (2.6)	96 (1.8)	77 (4.5)	79 (4.4)	85 (4.1)	75 (4.2)
Czech Republic	97 (1.6)	94 (1.8)	79 (3.8)	43 (3.9)	39 (4.1)	70 (3.6)	30 (4.4)
England	93 (2.3)	94 (2.2)	66 (4.9)	65 (4.8)	83 (3.4)	85 (3.1)	84 (3.5)
France	80 (2.9)	78 (2.9)	31 (3.0)	23 (3.0)	40 (3.6)	23 (3.3)	34 (3.9)
Germany	93 (1.4)	94 (1.4)	72 (3.1)	53 (2.9)	52 (3.4)	64 (3.1)	26 (2.5)
Greece	92 (2.1)	85 (3.2)	87 (3.0)	68 (4.6)	68 (4.2)	82 (3.9)	67 (4.9)
Hong Kong, SAR	80 (3.3)	72 (4.4)	57 (4.8)	31 (3.9)	43 (4.7)	46 (4.1)	49 (4.5)
Hungary	94 (2.0)	99 (1.0)	86 (2.9)	80 (3.2)	56 (3.6)	92 (1.9)	82 (3.2)
Iceland	--	62 (0.4)	37 (0.4)	9 (0.2)	17 (0.3)	32 (0.4)	1 (0.1)
Iran, Islamic Rep. of	90 (2.1)	81 (3.8)	56 (4.5)	50 (4.6)	49 (4.6)	73 (3.7)	58 (4.3)
Israel	95 (2.1)	96 (1.5)	87 (2.9)	79 (3.6)	81 (3.6)	89 (2.9)	78 (4.2)
Italy	96 (1.5)	96 (1.6)	79 (2.8)	64 (3.5)	58 (3.7)	48 (3.7)	64 (3.7)
Kuwait	88 (2.6)	97 (0.7)	84 (3.3)	71 (3.5)	64 (3.9)	67 (4.1)	59 (3.9)
Latvia	99 (0.7)	96 (1.7)	84 (3.6)	64 (4.4)	66 (4.3)	86 (3.3)	36 (4.2)
Lithuania	99 (1.0)	99 (1.0)	90 (2.7)	81 (3.4)	73 (3.9)	96 (1.7)	71 (3.6)
Macedonia, Rep. of	99 (0.8)	96 (2.0)	84 (3.3)	74 (4.3)	65 (4.7)	91 (2.7)	77 (3.9)
Moldova, Rep. of	96 (1.6)	99 (0.9)	91 (2.6)	90 (2.4)	70 (3.7)	98 (1.2)	87 (2.9)
Morocco	92 (2.8)	94 (2.8)	46 (5.7)	41 (5.5)	45 (4.8)	79 (4.2)	42 (5.3)
Netherlands	71 (4.0)	76 (3.5)	52 (4.8)	37 (4.4)	46 (4.5)	57 (4.6)	31 (4.5)
New Zealand	90 (2.7)	93 (2.2)	82 (3.6)	62 (4.2)	85 (3.0)	83 (3.4)	53 (4.2)
Norway	2m8	46 (4.58)	46 (4.8)	46 (4.8)	46 (4.8)	46 (4.8)	46 (4.8)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS), 2001.

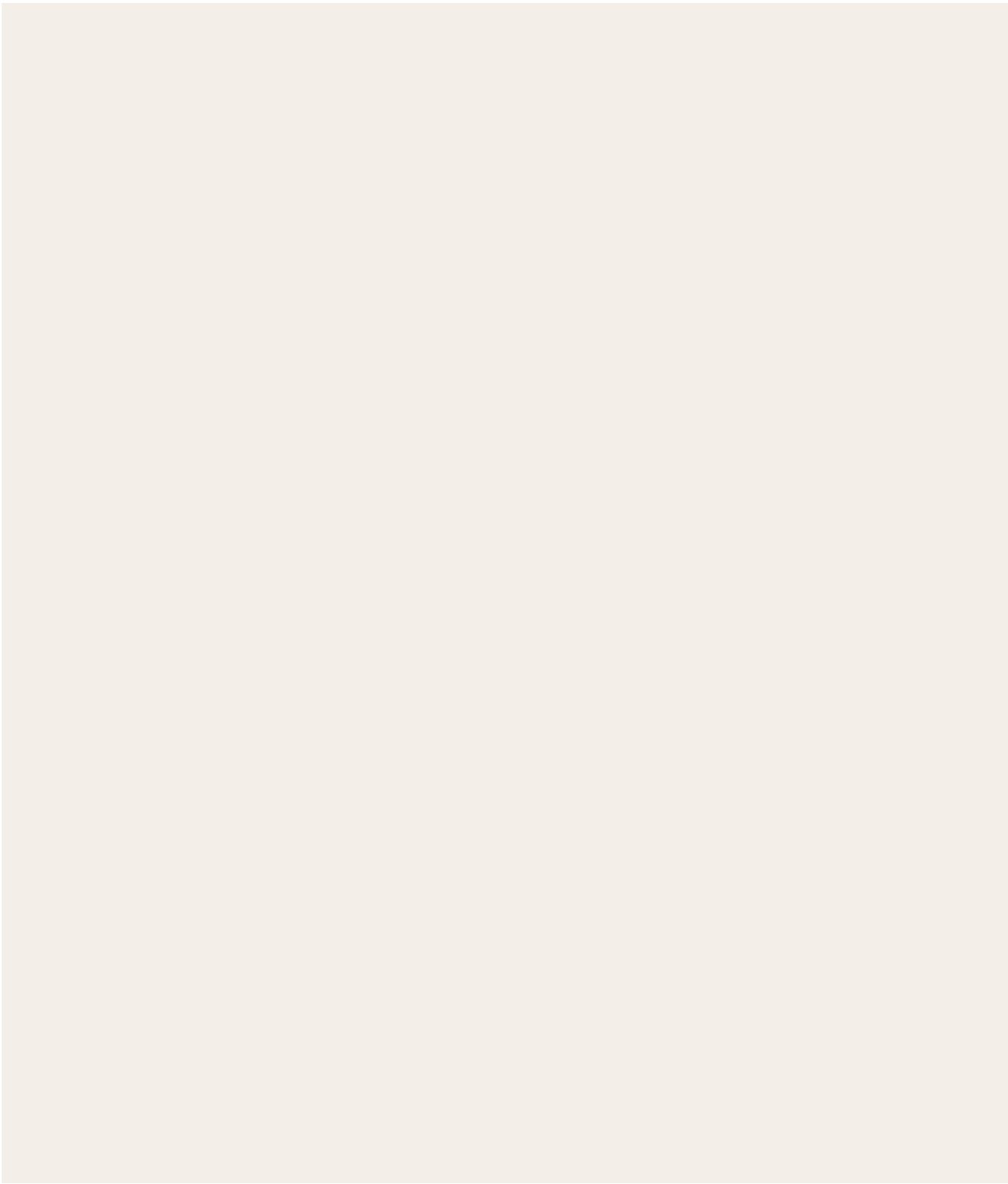
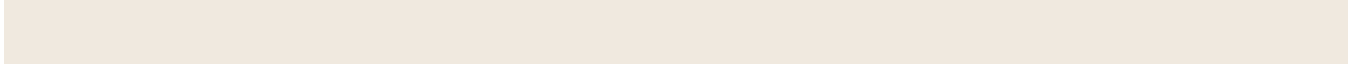


Table 5.10

Argentina	80 (4.1)	27 (4.3)	10 (2.5)	34 (4.7)	50 (4.7)
Belize	85 (4.9)	45 (7.7)	r 15 (4.6)	14 (4.5)	11 (3.7)
Bulgaria	89 (2.8)	16 (2.7)	8 (2.0)	14 (2.6)	20 (2.9)
Canada (O,Q)	94 (1.4)	28 (3.1)	12 (2.4)	7 (1.8)	5 (1.3)
Colombia	75 (4.0)	28 (4.0)	7 (3.0)	28 (4.4)	39 (5.2)
Cyprus	94 (2.5)	r 10 (3.3)	r 3 (2.1)	r 7 (3.3)	r 6 (2.2)
Czech Republic	82 (3.4)	2 (1.2)	1 (0.8)	12 (3.1)	6 (2.0)
England	92 (2.3)	59 (4.8)	7 (2.4)	7 (2.4)	4 (2.0)
France	78 (4.0)	19 (4.0)	10 (3.4)	1 (1.0)	11 (3.3)
Germany	93 (2.2)	10 (2.8)	1 (0.7)	2 (1.1)	5 (1.8)
Greece	90 (2.7)	1 (0.1)	1 (0.8)	1 (1.0)	3 (1.0)
Hong Kong, SAR	52 (4.5)	15 (3.0)	12 (2.6)	20 (2.8)	13 (2.9)
Hungary					



Instructional Time for Language and Reading Instruction

Total time for instruction in school as reported by school principals (Exhibit 5.11) ranged from 602 hours on average in Slovenia to 1082 hours in The Netherlands, with an international average of 837. Fourth-grade teachers reported that, on average, about one-third of this total was devoted to language instruction and about one-quarter to instruction in reading, both formal reading instruction and informal reading activities across the curriculum. Several of the countries with fewer instructional hours per year in total, including Iran, Argentina, Lithuania, Norway, Romania, and Bulgaria, had teachers that reported spending greater than average percentages of time on reading (more than 30%).

Teachers reported spending as much as 9 hours per week, on average, on language instruction in Colombia, the United States, New Zealand, Canada (O,Q), France, Cyprus, and Greece, and as little as three hours in Macedonia; the average across all countries was seven hours. With regard to instruction in reading, teachers reported spending five hours each week, on average, internationally, although the amount ranged from just one hour in Macedonia to as many as nine hours in the United States. Of all the PIRLS countries, principals and teachers in the United States reported the greatest amount of time devoted to reading instruction. Total time for instruction in the United States was above the international average (1041 hours per year vs. 837 internationally), and the percentage of this time devoted to reading also was above average (31% vs. 24% internationally). The number of hours spent on reading instruction each week also was above the international average in the United States (nine hours vs. five hours internationally), and in fact was the highest of any country.

Exhibit 5.12 provides more detail on the number of hours reading is taught weekly, whether as a formally scheduled activity or as an activity integrated across other areas of the curriculum. On average, across countries, 28 percent of fourth-grade students were in schools where teachers reported spending more than six hours each week on reading instruction, 35 percent in schools devoting from three to six hours weekly, and 37 percent up to three hours. In

Table 5.12 Progress in Reading Literacy Study (PIRLS) 2001 (Selected Countries)

Country	Reading Literacy Score (Mean)	Reading Literacy Score (SD)	Reading Literacy Score (Mean)	Reading Literacy Score (SD)	Reading Literacy Score (Mean)	Reading Literacy Score (SD)	Reading Literacy Score (Mean)
Argentina	45 (4.7)	402 (10.0)	25 (4.0)	432 (11.7)	30 (4.3)	437 (10.1)	
Belize	r 36 (4.3)	317 (10.8)	47 (4.4)	327 (7.2)	17 (4.0)	295 (13.7)	
Bulgaria	31 (3.4)	541 (8.4)	56 (3.9)	552 (5.1)	14 (2.8)	558 (9.4)	
Canada (O,Q)	35 (3.5)	547 (3.7)	44 (3.4)	545 (3.7)	21 (3.1)	542 (4.3)	
Colombia	40 (4.9)	421 (6.7)	33 (4.8)	413 (8.7)	27 (3.6)	442 (10.0)	
Cyprus	r 36 (5.2)	499 (4.6)	23 (4.7)	497 (6.1)	42 (5.7)	489 (5.4)	
Czech Republic	18 (3.5)	536 (5.6)	35 (4.1)	542 (4.0)	46 (4.7)	533 (3.5)	
England	13 (3.2)	532 (11.5)	34 (4.4)	557 (7.1)	53 (4.2)	561 (4.6)	
France	404.1) 5378.7)	11 (2.7)	529 (8.9)	553 (3.4)	40 (4.7)	528 (3.8)	49 (5.2)
Germany	r 12 (2.4)	530 (8.7)	28 (3.2)	537 (3.5)	60 (3.3)	542 (2.9)	
Greece	36 (4.3)	522 (6.0)	26 (4.3)	537 (7.2)	37 (4.9)	524 (5.7)	
Hong Kong, SAR	r 3						

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2001.

addition to Iran, where 70 percent of students were in schools spending more than six hours weekly, other countries devoting a lot of time to reading instruction each week included Romania and the United States.

Because reading in fourth grade may be taught both as a formal teaching activity and more informally as students read for other subjects, PIRLS asked teachers if any of the time they spent on reading instruction was explicitly for formal reading instruction designed to develop or enhance reading comprehension skills. Exhibit 5.13 shows that such formal reading instruction was very much a part of reading in fourth grade in all countries. On average, 85 percent of students were in schools with such formal reading instruction, and in many countries almost all students were in such schools. The number of hours spent on formal reading instruction ranged from 1.2 hours per week in Germany to 5.0 hours in Moldova.

According to teachers' reports (Exhibit 5.14), reading instruction was a daily or almost daily activity in most countries, with 54 percent of students internationally in schools where instruction takes place daily, and 35 percent in schools where it happens on three or four days each week. In Hong Kong, Iceland, Macedonia, Singapore, and Slovenia, 20 percent or more of students were in schools where reading instruction took place on fewer than three days each week.

5.3.3.2. School Reading Instructional Programs

In implementing the school reading instructional program for students at different reading levels, the most common approach was to have all students follow the same instructional program but at different speeds. As shown in Exhibit 5.15, 60 percent of students, on average, internationally, were in schools that follow this practice, and in Bulgaria, Colombia, Cyprus, the Czech Republic, France, Germany, Hungary, Italy, Latvia, Lithuania, Moldova, the Russian Federation, and Slovenia, more than 70 percent of fourth-grade students were in such schools. A less common approach was to have students at different reading levels follow different reading instructional programs. However, although just 29 percent of students, on average, across countries, were in schools following this approach, it was the approach used in schools with the majority of

5.14

ISC
4th Grade
PIRLS 2001

Countries	Every Day		3-4 Days a Week		Fewer than 3 Days a Week	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Argentina	28 (4.1)	415 (11.4)	53 (4.8)	416 (9.2)	19 (3.6)	432 (13.6)
Belize	71 (5.2)	324 (5.6)	24 (4.5)	325 (17.1)	5 (2.1)	314 (19.7)
Bulgaria	31 (4.4)	551 (8.2)	60 (4.5)	554 (5.0)	9 (2.3)	543 (10.4)
Canada (O,Q)	67 (3.5)	548 (2.7)	24 (3.3)	540 (4.3)	8 (1.8)	530 (7.8)
Colombia	58 (4.3)	426 (5.0)	28 (3.9)	408 (10.0)	13 (3.1)	442 (18.8)
Cyprus	79 (4.6)	494 (3.5)	17 (4.2)	489 (6.8)	4 (1.9)	500 (14.6)
Czech Republic	44 (4.0)	536 (4.0)	42 (4.3)	535 (3.5)	13 (3.1)	547 (5.9)
England	74 (3.6)	551 (4.2)	23 (3.6)	564 (8.8)	3 (1.7)	570 (8.8)
France	66 (3.9)	524 (2.8)	28 (3.7)	527 (5.2)	7 (1.9)	531 (7.3)
Germany	51 (3.0)	537 (2.5)	32 (2.8)	545 (3.4)	16 (2.3)	539 (3.8)
Greece	81 (3.5)	522 (3.6)	13 (3.5)	535 (12.6)	7 (2.9)	550 (20.4)
Hong Kong, SAR	17 (3.4)	525 (7.4)	38 (4.6)	534 (5.2)	46 (4.4)	525 (4.4)
Hungary	40 (4.2)	543 (3.6)	60 (4.2)	545 (3.0)	0 (0.0)	~ ~
Iceland	37 (0.4)	511 (1.7)	41 (0.4)	513 (2.4)	22 (0.3)	516 (2.6)
Iran, Islamic Rep. of	32 (4.0)	412 (10.4)	52 (4.3)	421 (6.7)	17 (3.4)	404 (8.8)
Israel	55 (4.3)	505 (7.1)	35 (4.2)	512 (7.4)	11 (2.7)	515 (10.9)
Italy	36 (3.6)	535 (4.7)	49 (3.9)	544 (3.6)	15 (2.6)	549 (5.9)
Kuwait	82 (3.0)	399 (5.7)	12 (2.5)	398 (8.3)	6 (1.6)	412 (7.5)
Latvia	66 (4.3)	540 (3.1)	32 (4.3)	555 (4.2)	2 (1.1)	~ ~
Lithuania	67 (4.2)	543 (3.6)	29 (4.0)	542 (5.4)	4 (1.6)	561 (2.6)
Macedonia, Rep. of	41 (3.8)	459 (9.2)	39 (4.4)	431 (8.3)	20 (3.7)	429 (14.6)
Moldova, Rep. of	32 (3.8)	503 (7.1)	63 (3.9)	489 (5.3)	5 (1.8)	455 (12.4)
Morocco	35 (5.3)	340 (11.4)	59 (5.5)	344 (11.7)	7 (2.4)	351 (31.6)
Netherlands	55 (4.3)	557 (3.2)	39 (4.2)	549 (4.9)	6 (1.8)	550 (7.3)
New Zealand	68 (3.7)	522 (4.2)	30 (3.8)	543 (8.2)	2 (1.0)	~ ~
Norway	58 (4.5)	503 (4.6)	32 (3.9)	493 (4.4)	10 (3.1)	496 (8.5)
Romania	71 (4.1)	521 (5.4)	24 (3.7)	495 (12.2)	4 (2.0)	482 (26.1)
Russian Federation	87 (2.6)	529 (4.7)	12 (2.5)	522 (11.0)	1 (0.6)	~ ~
Scotland	45 (4.9)	526 (5.4)	45 (4.9)	528 (5.7)	11 (2.9)	547 (13.0)
Singapore	45 (4.0)	522 (8.2)	34 (4.0)	530 (9.6)	22 (3.3)	532 (11.9)
Slovak Republic	48 (3.9)	514 (4.5)	52 (3.9)	521 (3.7)	0 (0.0)	~ ~
Slovenia	36 (4.1)	499 (3.6)	34 (4.0)	498 (3.5)	30 (4.2)	509 (4.1)
Sweden	57 (3.6)	562 (3.3)	30 (3.4)	556 (3.5)	13 (2.2)	568 (3.4)
Turkey	54 (5.0)	454 (5.2)	37 (4.5)	439 (6.7)	10 (2.7)	459 (9.9)
United States	93 (2.1)	541 (4.2)	6 (2.0)	555 (7.5)	1 (0.5)	~ ~
International Avg.	54 (0.7)	500 (1.0)	35 (0.7)	500 (1.3)	10 (0.4)	495 (2.2)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2001.

Background data provided by teachers.

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

An "r" indicates data are available for 70-84% of the students. An "s" indicates data are available for 50-69% of the students. An "x" indicates data are available for less than 50% of the students.

A dash (-) indicates data are not available. A tilde (~) indicates insufficient data to report achievement.

students in Canada (O,Q), England, Iceland, Israel, Kuwait, New Zealand, and Sweden. All students following the reading instructional program at the same speed was relatively rare, with just 11 percent of students internationally in schools where this was reported to be the practice.

Teachers' reports about the reading level of the fourth-grade students in the PIRLS class indicate that most students (56%) were in classes that the teacher considered to be of average ability (Exhibit 5.16). Countries with relatively higher percentages in average classes included the Czech Republic, Hungary, Italy, Macedonia, Moldova, Norway, the Slovak Republic, and Slovenia, where 70 percent or more of students were in such classes. Although only 18 percent of students internationally were in above average classes in their teachers' estimation, in countries such as Bulgaria, Cyprus, Greece, and Turkey, there were 40 percent or more of students in above average classes. Students' average reading performance on the PIRLS assessment were generally in line with teachers' reports, with students in above-average classes performing above those in average classes, and those in average classes scoring above those in below-average classes. Students in classes where the teacher reported that the reading level varies greatly had average reading performance just below the international average.

Table 5.17 ...

Argentina	5 (1.8)	74 (4.4)	5 (2.2)	16 (3.7)
Belize	4 (2.4)	64 (4.4)	10 (3.0)	22 (3.0)
Bulgaria	8 (2.2)	59 (3.6)	3 (1.3)	31 (3.6)
Canada (O,Q)	6 (1.2)	56 (3.4)	9 (1.9)	30 (3.4)
Colombia	10 (3.7)	66 (4.3)	4 (1.6)	19 (3.1)
Cyprus	4 (1.9)	84 (4.1)	1 (1.0)	11 (3.5)
Czech Republic	2 (1.3)	86 (3.1)	3 (1.4)	9 (2.6)
England	0 (0.0)	30 (4.2)	1 (0.9)	69 (4.4)
France	5 (1.7)	74 (3.7)	6 (1.9)	15 (3.1)
Germany	3 (1.1)	77 (2.3)	5 (1.3)	15 (2.1)
Greece	2 (1.2)	85 (2.7)	3 (1.3)	10 (2.3)
Hong Kong, SAR	18 (3.2)	35 (4.1)	38 (4.5)	9 (2.8)
Hungary	1 (0.9)	91 (2.4)	1 (0.9)	7 (2.0)
Iceland	3 (0.1)	31 (0.3)	4 (0.1)	62 (0.3)
Iran, Islamic Rep. of	8 (2.3)	33 (4.1)	9 (3.2)	49 (4.4)
Israel	7 (2.3)	53 (4.4)	3 (1.5)	36 (4.5)
Italy	8 (2.0)	54 (3.8)	7 (1.9)	31 (4)

5.18

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Countries	As Part of Instruction in Different Curriculum Areas		As a Separate Subject		Equally as Part of Instruction in Different Curriculum Areas and as a Separate Subject	
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Argentina	19 (4.2)	416 (17.2)	7 (2.6)	422 (13.2)	74 (4.5)	419 (6.8)
Belize	26 (5.4)	321 (10.9)	20 (5.5)	325 (17.3)	54 (7.2)	324 (8.8)
Bulgaria	5 (2.0)	531 (10.8)	9 (2.4)	561 (11.7)	86 (2.8)	552 (3.9)
Canada (O,Q)	11 (2.0)	538 (4.8)	21 (3.1)	549 (5.1)	68 (3.4)	545 (2.9)
Colombia	37 (4.9)	412 (7.2)	8 (2.5)	447 (36.2)	55 (5.0)	426 (5.5)
Cyprus	7 (2.6)	498 (9.5)	36 (4.5)	488 (4.6)	58 (4.7)	497 (4.1)
Czech Republic	6 (2.2)	543 (11.1)	35 (4.2)	537 (4.5)	58 (4.5)	536 (2.9)
England	10 (2.9)	547 (11.1)	43 (4.8)	558 (4.7)	48 (4.8)	553 (6.4)
France	5 (1.7)	553 (8.5)	6 (1.9)	526 (15.0)	89 (2.6)	524 (2.5)
Germany	30 (3.1)	545 (3.2)	6 (1.4)	535 (10.8)	64 (2.9)	538 (2.6)
Greece	14 (3.4)	524 (10.9)	32 (3.7)	516 (5.6)	54 (4.4)	531 (6.2)
Hong Kong, SAR	17 (2.7)	529 (5.5)	51 (4.6)	525 (4.4)	32 (4.0)	533 (6.2)
Hungary	55 (3.9)	545 (2.9)	18 (3.0)	539 (6.8)	27 (3.3)	547 (6.2)
Iceland	12 (0.2)	497 (3.5)	17 (0.2)	510 (2.7)	70 (0.3)	516 (1.3)
Iran, Islamic Rep. of	19 (2.8)	414 (10.2)	33 (3.8)	420 (9.3)	48 (3.7)	410 (6.5)
Israel	42 (4.3)	525 (7.3)	12 (2.9)	450 (15.4)	47 (4.6)	505 (7.0)
Italy	5 (1.6)	509 (14.0)	29 (3.1)	545 (4.7)	67 (3.3)	541 (3.0)
Kuwait	57 (3.7)	403 (6.7)	2 (1.0)	~ ~	41 (3.7)	397 (7.1)
Latvia	14 (3.5)	544 (6.4)	25 (3.2)	540 (4.9)	60 (4.5)	547 (3.4)
Lithuania	18 (3.2)	555 (7.7)	8 (2.3)	549 (9.1)	75 (3.6)	540 (3.0)
Macedonia, Rep. of	16 (3.6)	464 (14.6)	22 (2.8)	405 (13.2)	62 (4.3)	450 (7.2)
Moldova, Rep. of	25 (3.9)	476 (6.7)	4 (1.4)	497 (22.0)	71 (3.8)	496 (5.4)
Morocco	38 (5.1)	340 (14.5)	19 (3.9)	345 (15.8)	44 (4.9)	349 (12.5)
Netherlands	16 (3.3)	563 (6.0)	32 (4.5)	551 (5.1)	52 (4.9)	554 (2.7)
New Zealand	8 (2.2)	521 (12.9)	41 (4.8)	527 (7.3)	51 (4.7)	530 (5.4)
Norway	32 (4.0)	493 (5.8)	9 (2.5)	489 (5.7)	59 (4.2)	504 (3.3)
Romania	24 (3.9)	520 (9.1)	10 (2.1)	525 (10.2)	65 (4.2)	508 (6.3)
Russian Federation	38 (3.4)	528 (6.6)	6 (1.8)	490 (24.9)	57 (3.6)	532 (4.6)
Scotland	0 (0.0)	~ ~	65 (5.1)	529 (4.7)	35 (5.1)	528 (6.5)
Singapore	30 (3.1)	528 (9.3)	12 (2.6)	525 (12.0)	58 (3.0)	529 (7.6)
Slovak Republic	26 (3.8)	521 (4.2)	24 (3.5)	524 (6.2)	50 (4.0)	514 (4.5)
Slovenia	20 (3.3)	506 (4.8)	10 (2.2)	495 (7.3)	71 (3.2)	501 (2.4)
Sweden	29 (3.1)	559 (4.1)	6 (1.7)	570 (7.6)	65 (3.5)	562 (2.7)
Turkey	22 (3.4)	445 (6.4)	6 (2.0)	433 (13.7)	72 (3.7)	451 (4.3)
United States	6 (2.0)	506 (14.9)	31 (3.8)	539 (6.0)	63 (4.4)	547 (5.2)
International Avg.	21 (0.6)	498 (1.6)	20 (0.6)	500 (2.1)	58 (0.7)	501 (0.9)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2001.

Background data provided by teachers.

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

An "r" indicates data are available for 70-84% of the students. An "s" indicates data are available for 50-69% of the students. An "x" indicates data are available for less than 50% of the students.

A dash (-) indicates data are not available. A tilde (~) indicates insufficient data to report achievement.

Table 5.1

Argentina	58 (4.5)	7 (2.4)	27 (4.2)	r	8 (2.9)	18 (3.4)	23 (4.3)
Belize	r 33 (6.3)	r 12 (4.2)	r 20 (5.5)	r	6 (2.7)	r 6 (2.2)	r 49 (7.2)
Bulgaria	77 (3.4)	1 (0.8)	1 (0.8)		3 (1.5)	24 (3.2)	19 (3.1)
Canada (O,Q)	27 (2.8)	7 (1.9)	3 (1.0)		1 (1.0)	7 (2.2)	64 (3.3)
Colombia	40 (4.5)	3 (1.6)	13 (3.2)		5 (1.8)	21 (4.0)	45 (4.9)
Cyprus	32 (4.2)	r 1 (0.0)	28 (4.8)	r	3 (2.1)	12 (2.4)	47 (5.7)
Czech Republic	38 (4.0)	2 (1.4)	x x		1 (0.9)	8 (2.7)	40 (4.4)
England	25 (3.9)	27 (4.3)	3 (1.6)	r	3 (1.6)	3 (1.6)	60 (4.7)
France	26 (3.3)	5 (1.4)	3 (1.4)		1 (0.7)	3 (1.6)	68 (4.0)
Germany	30 (3.2)	1 (0.6)	1 (0.4)	r	1 (0.7)	7 (1.6)	66 (3.4)
Greece	71 (4.8)	0 (0.0)	6 (1.7)		0 (0.0)	10 (3.4)	19 (3.7)
Hong Kong, SAR	73 (3.3)	1 (0.0)	11 (2.6)		9 (2.2)	6 (2.0)	22 (3.3)
Hungary	11 (2.3)	6 (1.7)	r 1 (0.0)	r	0 (0.0)	r 2 (1.2)	r 85 (3.1)
Iceland	30 (0.3)	r 7 (0.2)	r 5 (0.2)	r	2 (0.0)	20 (0.4)	r 54 (0.4)
Iran, Islamic Rep. of	54 (4.0)	9 (2.3)	19 (3.4)		12 (2.1)	16 (3.2)	29 (3.3)
Israel	25 (3.7)	8 (2.6)	10 (3.0)	r	3 (1.6)	r 3 (1.3)	r 61 (4.5)
Italy	57 (3.4)	2 (1.3)	6 (1.8)		2 (1.0)	8 (2.3)	40 (3.5)
Kuwait	r 43 (4.0)	r 8 (1.8)	r 14 (2.8)	r	7 (1.8)	46 (3.6)	r 24 (3.3)
Latvia	58 (4.1)	2 (1.4)	4 (1.6)		0 (0.0)	6 (1.9)	39 (4.1)
Lithuania	28 (3.9)	4 (1.7)	6 (2.2)		1 (1.0)	7 (1.9)	62 (4.3)
Macedonia, Rep. of	42 (4.6)	6 (2.1)	12 (2.9)	r	6 (2.2)	22 (3.6)	44 (4.6)
Moldova, Rep. of	54 (4.0)	5 (1.7)	7 (2.2)		2 (1.1)	13 (2.9)	37 (4.1)
Morocco	62 (4.7)	r 10 (3.1)	r 18 (4.3)	r	3 (2.0)	r 43 (5.5)	r 20 (4.3)
Netherlands	54 (3.0)	r 8 (2.6)	r 15 (4.0)	r	5 (1.4)	27 (2.4)	55 (3.7)

Exhibit 5.19 presents teachers' reports of how they grouped their fourth-grade students for reading instruction or reading activities. Teaching reading as a whole-class activity was the most popular approach, with 38 percent of students, on average, in classes where the teacher always or almost always chose this method. The whole-class approach was particularly common in Bulgaria, Greece, Hong Kong, Romania, and the Russian Federation, where more than 70 percent of students were taught by teachers preferring this strategy. Creating groups on the basis of the same ability, mixed ability, or indeed

Table 5.20 Average Class Size by Country

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Countries	Overall Average Class Size	1-20 Students		21-30 Students		31 or More Students	
		Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Argentina	27 (0.5)	17 (3.2)	423 (10.1)	56 (4.4)	418 (8.7)	27 (3.7)	419 (11.5)
Belize	28 (0.7)	15 (2.4)	326 (16.9)	41 (5.2)	333 (10.6)	44 (5.2)	314 (8.1)
Bulgaria	22 (0.3)	37 (3.3)	528 (6.7)	61 (3.4)	565 (4.6)	1 (1.2)	~ ~
Canada (O,Q)	26 (0.2)	4 (1.1)	529 (10.4)	90 (2.0)	544 (2.5)	6 (1.7)	559 (8.1)
Colombia	30 (0.7)	23 (3.6)	413 (12.9)	17 (3.4)	399 (9.4)	60 (4.0)	433 (6.3)
Cyprus	25 (0.4)	15 (2.0)	477 (6.1)	76 (4.0)	495 (3.3)	9 (3.5)	510 (13.1)
Czech Republic	23 (0.4)	27 (2.9)	531 (5.9)	68 (3.6)	539 (2.4)	6 (2.1)	539 (17.8)
England	29 (0.4)	9 (2.3)	560 (12.8)	48 (4.4)	542 (4.9)	43 (4.6)	567 (5.1)
France	24 (0.3)	17 (2.5)	521 (7.2)	82 (2.7)	526 (2.8)	1 (0.9)	~ ~
Germany	23 (0.2)	31 (3.0)	537 (4.3)	66 (3.1)	541 (2.3)	3 (0.9)	549 (9.7)
Greece	20 (0.3)	54 (3.8)	515 (5.6)	45 (4.1)	536 (4.7)	1 (0.0)	~ ~
Hong Kong, SAR	35 (0.4)	0 (0.0)	~ ~	13 (4.0)	509 (14.7)	87 (4.0)	532 (3.2)
Hungary	24 (0.4)	26 (3.2)	529 (4.0)	64 (4.0)	549 (3.1)	10 (2.9)	557 (6.8)
Iceland	20 (0.0)	50 (0.4)	515 (1.8)	50 (0.4)	511 (1.7)	0 (0.0)	~ ~
Iran, Islamic Rep. of	28 (0.5)	23 (3.4)	380 (7.5)	39 (4.8)	411 (8.5)	38 (3.7)	438 (7.4)
Israel	30 (0.5)	4 (1.4)	513 (32.0)	42 (4.5)	511 (6.2)	54 (4.2)	507 (6.2)
Italy	21 (0.3)	50 (3.6)	544 (3.5)	50 (3.6)	537 (3.2)	0 (0.4)	~ ~
Kuwait	30 (0.2)	1 (0.5)	~ ~	58 (3.5)	402 (6.2)	41 (3.5)	399 (7.2)
Latvia	23 (0.4)	31 (3.2)	523 (3.6)	58 (3.9)	551 (3.0)	11 (2.5)	574 (6.0)
Lithuania	22 (0.3)	35 (3.0)	528 (4.8)	64 (3.2)	550 (3.2)	1 (1.0)	~ ~
Macedonia, Rep. of	26 (0.5)	16 (2.7)	398 (16.2)	59 (4.1)	447 (6.0)	26 (3.7)	459 (9.6)
Moldova, Rep. of	25 (0.5)	22 (4.0)	488 (8.8)	60 (4.9)	491 (5.5)	18 (3.3)	503 (12.5)
Morocco	31 (0.9)	16 (3.1)	334 (26.4)	31 (5.3)	377 (13.3)	53 (5.5)	328 (9.7)
Netherlands	26 (0.5)	14 (2.6)	528 (7.6)	66 (4.0)	556 (2.8)	21 (4.1)	563 (4.0)
New Zealand	28 (0.3)	9 (2.3)	510 (10.5)	69 (4.0)	523 (4.2)	22 (3.5)	554 (10.5)
Norway	20 (0.5)	50 (4.2)	497 (4.3)	49 (4.3)	501 (4.4)	1 (0.8)	~ ~
Romania	22 (0.4)	34 (2.8)	504 (9.1)	55 (3.7)	511 (6.1)	11 (2.8)	539 (10.0)
Russian Federation	22 (0.5)	38 (3.6)	521 (5.3)	55 (3.7)	530 (7.1)	7 (1.9)	549 (5.3)
Scotland	26 (0.4)	11 (2.8)	534 (11.5)	71 (4.3)	526 (4.8)	18 (3.6)	534 (7.4)
Singapore	37 (0.3)	1 (0.6)	~ ~	6 (1.5)	434 (33.3)	93 (1.6)	533 (4.9)
Slovak Republic	24 (0.4)	31 (3.2)	504 (6.0)	57 (4.1)	522 (3.2)	12 (2.9)	534 (6.7)
Slovenia	21 (0.3)	42 (3.8)	494 (3.3)	58 (3.8)	507 (2.5)	0 (0.0)	~ ~
Sweden	24 (0.6)	25 (2.8)	554 (4.6)	67 (3.2)	564 (2.7)	8 (2.4)	563 (6.5)
Turkey	35 (0.8)	6 (2.0)	460 (16.4)	34 (4.3)	439 (6.3)	60 (4.0)	455 (5.2)
United States	24 (0.5)	24 (4.1)	542 (6.9)	68 (3.9)	545 (4.9)	9 (2.4)	526 (12.3)
International Avg.	26 (0.1)	23 (0.5)	492 (3.2)	54 (0.7)	499 (1.4)	23 (0.5)	501 (1.6)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2001.

*Results are for entire classes, which included some multi-grade classrooms. To take the possibility of multigrade classrooms into consideration, PIRLS also asked teachers to report the number of 4th grade students. There was little

difference in most countries between the size of entire classes and just the 4th graders. Compared to 26 for entire classes (see above), the average number of 4th graders in classrooms across countries was 24.

Background data provided by teachers.

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

An "r" indicates data are available for 70-84% of the students. An "s" indicates data are available for 50-69% of the students. An "x" indicates data are available for less than 50% of the students.

A dash (-) indicates data are not available. A tilde (~) indicates insufficient data to report achievement.

5.21. Students with Difficulties with Spoken Language and Reading

To gain an appreciation of the challenges faced by teachers in teaching reading to their fourth-grade students, PIRLS asked teachers about students in their class with difficulties with spoken language or with reading. Exhibit 5.21 presents teachers' reports of the number of students in their class who experienced difficulty understanding spoken language, how many needed remedial instruction in reading and how many received it, and how many received enrichment reading instruction because they were advanced readers. Although in most countries teachers reported very few students with difficulty understanding the language of instruction as spoken language, there were a number of countries, including Argentina, Belize, Colombia, Iran, Kuwait, and Morocco, with five or more such students, on average, in their fourth-grade reading class.

Students needing remedial instruction in reading posed a more pervasive problem, with teachers reporting that, on average, five students in their fourth-grade class were in need of remedial teaching but that only three students were receiving it. The countries with most students needing remedial reading instruction were essentially those having most students with spoken language difficulties, (i.e., Argentina, Belize, Colombia, and Morocco, although the Slovak Republic also should be included). In general, about as many students were receiving reading instruction for enrichment because they were advanced readers (three students per class, on average) as were receiving remedial instruction because they had difficulty keeping up with the rest of the class. Countries where enrichment instruction for advanced students was most popular included Belize, Iran, Macedonia, Moldova, Morocco, the Slovak Republic, and Turkey, where, on average, seven or more students in each class were reported to be receiving such instruction.

To find out how they deal with reading difficulties among their fourth-grade students, PIRLS asked teachers about access to remedial or reading specialists or other professionals. Exhibit 5.22 shows that 11 percent of students were in classes where the teacher reported having a remedial or reading specialist always available to deal with students having difficulty with reading, and 26 percent in classes where such specialists were sometimes available. Almost

