PIRLS

Chapter 6



Chapter 6

Teachers and Reading Instruction

Even though the home plays an important part in children's early literacy activities, there is no doubt that teachers and the instructional approaches they use are central in helping students learn to read. Teachers assign the materials to be read, select various instructional activities, monitor the development of students' comprehension skills and strategies, and provide opportunities for students to respond to what they have read.

Teachers often help students learn to use the library and to use technology to access and exchange information and ideas. They may also assign homework and conduct informal as well as formal assessments.

On average, about half the students were taught reading by teachers with a university degree.

Chapter 6 presents teachers' reports on their background and training and their instructional practices. Information also is presented about the types of materials used in instruction, the activities students do in class, the use of libraries and technology, the role of homework, and the frequency of various assessment approaches.

The data were collected via a questionnaire in which PIRLS asked teachers to provide information about their preparation to teach and how they teach reading. Because the sampling for the
teacher questionnaires was based on participating students, the teachers are
representative of those who teach reading to the students assessed. It is important to note that when information from the teacher questionnaire is being
reported, the student is always the unit of analysis. That is, the data shown are
the percentages of students whose teachers reported on various characteristics or instructional strategies. Using the student as the unit of analysis makes
it possible to describe the instruction received by students. Although this
perspective may differ from that obtained by simply collecting and reporting the information provided by teachers, it is consistent with the PIRLS
goals of providing information about the educational contexts and performance of students.

Since the teachers who completed the questionnaire were the reading teachers of the students who took the PIRLS test, the information about instruction is tied directly to the students tested. Sometimes, however, teachers did not complete the questionnaire assigned to them, so most countries had some percentage of students for whom no teachers questionnaire information is available. The exhibits in this chapter have special notations on this point. For a country where teacher responses are available for 70 to 84 percent of students, an "r" is included next to its data. Where teacher responses are

available for 50 to 69 percent of students, an "s" is included. Where teacher responses are available for less than 50 percent, an "x" replaces the data.

What Preparation Do Teachers Have for Teaching Reading?

This section presents information about the background characteristics of reading teachers, including gender, age, experience, and teaching assignment. Information also is included about teachers' formal education, certification, and major area of study.

As shown in Exhibit 6.1, students in many of the PIRLS countries were taught reading by female teachers. Internationally, on average, 81 percent of the fourth-grade students were taught reading by women and 19 percent by men. Countries where reading was taught almost exclusively by female teachers (97% or more) include Italy, Latvia, Lithuania, and the Russian Federation. In several countries, however, at least half (50 to 54%) the students had male reading teachers, including Morocco, The Netherlands, and Turkey.

Internationally, on average, approximately half the fourth-grade students were taught by teachers younger than 40 years old and half by teachers 40 or older. If there was a steady replenishing of the teaching force, one might expect approximately equivalent percentages of students taught by teachers in their 20s, 30s, 40s, and 50s, and, internationally, the situation was very close to this picture. There, of course, was considerable variation among countries. In Cyprus and Singapore, about half the students were taught by teachers in their 20s and in Germany about half by teachers in their 50s.

Considering that, internationally, students, on average, had reading teachers who reported being about 40 years old, it is not surprising that students, on average, had teachers who reported being relatively experienced – about 16 years of teaching experience overall, with 5 years at the fourth grade.

Exhibit 6.2 shows that even though students in Canada (O,Q) (91%), England (88%), and the United States (95%) stayed with a teacher only one year, this policy varied greatly across countries. Internationally, on average, during primary and elementary school about as many students (27%) stayed with their teachers four or more years as stayed only one year (31%). Many of the eastern European countries had students (90% or more) staying with

their teachers for four or more years, including Bulgaria, Lithuania, Macedonia, Moldova, and Romania.

Exhibit 6.3 presents teachers' reports about their teaching responsibilities. Internationally, on average, a slim majority (54%) of the fourth-grade students had reading teachers that reported being their only teacher and having general responsibilities for teaching all subjects. Teachers reported this situation for 80 percent or more of students in Belize, Iceland, Iran, Lithuania, Macedonia, and the Russian Federation. Countries reporting the most specialization for students were Hong Kong (89%), Israel (77%), Italy (85%), and Kuwait (79%). At the fourth grade, sharing teaching responsibilities did not seem to be very prevalent (only 7% internationally, on average). Interestingly, the countries with the most students (one-fourth or more) being taught by teachers sharing responsibilities included Morocco (25%) as well as three of the top-performing countries — Bulgaria (25%), The Netherlands (25%), and Sweden (30%).

Exhibit 6.4 contains information about teachers' formal education and certification. On average, internationally, nearly two-thirds (65%) of students were taught reading by teachers with a university degree and 22 percent by graduates of college or university programs of two or three years in duration. From the requisites for becoming a fourth-grade reading teacher in each of the participating countries described in the PIRLS 2001 Encyclopedia, 1 it is clear that there are differences in preparation and certification policies. In some countries, all or nearly all the fourth-grade students (more than 90%) were taught reading by teachers with university degrees (Canada (O,Q), Cyprus, England, Germany, Hungary, The Netherlands, New Zealand, Norway, Scotland, Sweden, and the United States). In other countries, the majority of students had teachers that graduated from college or university programs of 2 or 3 three years, often targeted specifically to teaching (Argentina, Greece, Macedonia, Slovenia, and Turkey). Eighty-nine percent of students, on average, internationally, were taught reading by a teacher having a teaching certificate.

Exhibit 6.5 presents teachers' reports about the areas of emphasis in their formal education and training. The results reveal that, on average,

Mullis, I.V.S., Martin, M.O., Kennedy, A.M., & Flaherty, C.L. (Eds.) (2002). PIRLS 2001 encyclopedia: A reference guide to reading education in the countries participating in IEA's Progress in International Reading Literacy Study (PIRLS). Chestnut Hill, MA: Boston College.

Exhibit 6.1: Teachers' Gender, Age, and Average Number of Years Teaching



4th Grade PIRLS 2001

Belize Bulgaria	Female 92 (2.4) 72 (4.4)	Male 8 (2.4)	29 Years or Under	Age 30-39	:			ber of eaching
Belize Bulgaria	92 (2.4) 72 (4.4)			30-39	Age			
Argentina Belize Bulgaria	72 (4.4)	8 (2.4)		Years	40-49 Years	50 Years or Older	All Grades	Fourth Grade*
Bulgaria			17 (3.0)	40 (4.9)	27 (4.7)	16 (3.6)	14 (0.9)	3 (0.3)
3	02 (2.2)	28 (4.4)	39 (4.7)	35 (4.5)	19 (4.7)	6 (3.1)	r 12 (1.4)	r 3 (0.2)
	92 (2.3)	8 (2.3)	7 (2.2)	45 (3.9)	31 (4.5)	17 (3.4)	17 (0.7)	3 (0.1)
Canada (O,Q)	82 (3.1)	18 (3.1)	16 (2.2)	23 (3.1)	28 (3.1)	34 (3.4)	17 (0.7)	6 (0.4)
Colombia	82 (3.0)	18 (3.0)	14 (3.0)	34 (3.9)	34 (4.5)	18 (3.2)	17 (0.9)	6 (0.5)
Cyprus	83 (3.3)	17 (3.3)	52 (4.5)	32 (4.0)	5 (2.1)	10 (2.3)	10 (0.9)	3 (0.2)
Czech Republic	94 (1.6)	6 (1.6)	16 (3.2)	29 (4.1)	23 (3.8)	32 (3.4)	19 (1.1)	5 (0.5)
England	80 (3.6)	20 (3.6)	28 (4.7)	16 (3.3)	36 (4.9)	20 (3.5)	14 (1.0)	5 (0.4)
France	64 (3.8)	36 (3.8)	10 (2.4)	32 (3.8)	34 (4.3)	23 (3.5)	18 (0.8)	9 (0.7)
Germany	82 (2.4)	18 (2.4)	7 (1.5)	13 (2.1)	27 (2.3)	53 (2.6)	23 (0.7)	8 (0.3)
Greece	68 (4.8)	32 (4.8)	6 (2.7)	47 (4.5)	36 (4.8)	11 (2.5)	16 (0.8)	4 (0.3)
Hong Kong, SAR	70 (4.4)	30 (4.4)	34 (3.9)	25 (3.6)	27 (4.7)	14 (3.1)	13 (0.9)	5 (0.4)
Hungary	96 (1.7)	4 (1.7)	11 (2.4)	34 (4.1)	37 (3.7)	17 (3.3)	19 (0.8)	5 (0.4)
Iceland	93 (0.2)	7 (0.2)	15 (0.2)	32 (0.4)	30 (0.3)	23 (0.3)	13 (0.1)	3 (0.0)
Iran, Islamic Rep. of	60 (4.4)	40 (4.4)	31 (3.4)	30 (3.6)	33 (3.3)	6 (0.9)	14 (0.6)	6 (0.4)
Israel	93 (2.2)	7 (2.2)	18 (3.5)	38 (4.1)	35 (4.1)	9 (2.5)	15 (0.7)	5 (0.4)
Italy	98 (0.9)	2 (0.9)	3 (1.5)	18 (2.7)	37 (3.9)	41 (4.1)	22 (0.7)	5 (0.2)
Kuwait	70 (3.3)	30 (3.3)	29 (3.9)	46 (4.1)	21 (3.6)	4 (1.8)	12 (0.7)	r 5 (0.4)
Latvia	97 (1.5)	3 (1.5)	13 (3.0)	35 (4.3)	26 (3.6)	27 (4.2)	20 (1.1)	4 (0.3)
Lithuania	97 (1.6)	3 (1.6)	10 (2.6)	32 (3.6)	32 (4.3)	26 (3.8)	20 (0.9)	5 (0.3)
Macedonia, Rep. of	65 (3.9)	35 (3.9)	13 (3.0)	23 (3.7)	27 (3.7)	37 (4.0)	r 19 (1.2)	r 6 (0.5)
Moldova, Rep. of	92 (2.4)	8 (2.4)	20 (3.2)	42 (4.7)	19 (3.4)	19 (3.3)	19 (0.8)	4 (0.3)
Morocco	46 (5.5)	54 (5.5)	16 (3.5)	22 (3.8)	55 (5.0)	6 (2.3)	16 (0.7)	6 (0.6)
Netherlands	50 (4.4)	50 (4.4)	28 (3.4)	12 (2.8)	32 (3.5)	29 (3.9)	17 (0.9)	6 (0.5)
New Zealand	70 (4.3)	30 (4.3)	24 (3.8)	20 (3.5)	34 (4.2)	22 (3.9)	14 (1.0)	6 (0.6)
Norway	84 (3.2)	16 (3.2)	13 (2.7)	16 (3.1)	35 (4.4)	35 (3.7)	17 (0.8)	3 (0.2)
Romania	84 (3.3)	16 (3.3)	22 (3.7)	17 (3.4)	43 (4.3)	18 (3.5)	20 (0.9)	5 (0.2)
Russian Federation	99 (0.5)	1 (0.0)	17 (3.2)	34 (3.4)	29 (3.0)	20 (2.8)	19 (0.8)	5 (0.3)
Scotland	89 (2.7)	11 (2.7)	14 (3.5)	16 (4.0)	42 (4.7)	28 (4.5)	18 (1.0)	5 (0.5)
Singapore	83 (2.9)	17 (2.9)	48 (3.9)	27 (3.5)	10 (2.4)	15 (2.5)	11 (0.9)	3 (0.2)
Slovak Republic	93 (1.8)	7 (1.8)	15 (2.7)	32 (4.0)	31 (4.0)	22 (3.3)	17 (0.9)	6 (0.4)
Slovenia	95 (1.4)	5 (1.4)	10 (2.4)	38 (4.3)	31 (4.3)	21 (3.4)	19 (0.8)	9 (0.7)
Sweden	80 (2.6)	20 (2.6)	16 (2.0)	20 (2.7)	25 (2.5)	38 (3.0)	16 (0.8)	7 (0.5)
Turkey	49 (4.2)	51 (4.2)	24 (3.4)	29 (4.1)	38 (4.2)	9 (2.1)	15 (0.8)	4 (0.2)
United States	88 (3.1)	12 (3.1)	13 (3.0)	22 (3.6)	28 (3.8)	37 (3.8)	15 (0.9)	7 (0.4)
International Avg.	81 (0.5)	19 (0.5)	19 (0.5)	29 (0.6)	30 (0.7)	22 (0.5)	16 (0.2)	5 (0.1)

Background data provided by teachers.

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 (\sim) indicates insufficient data to report achievement.

^{*} Fourth grade in most countries.

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

Exhibit 6.2: Number of Years Students Typically Stay with the Same Classroom Teacher



		Perc	entage of Stud	lents	
Countries	One School Year or Less	Two Years	Three Years	Four or More Years	Varies Greatly
Argentina	45 (4.4)	39 (4.6)	12 (2.8)	1 (0.7)	3 (1.3)
Belize	69 (4.3)	11 (3.0)	1 (0.4)	0 (0.0)	20 (4.0)
Bulgaria	0 (0.0)	2 (0.7)	8 (2.0)	90 (2.1)	0 (0.0)
Canada (O,Q)	91 (1.9)	7 (1.6)	0 (0.0)	0 (0.0)	2 (1.0)
Colombia	37 (4.2)	20 (4.0)	12 (2.9)	19 (4.1)	12 (2.6)
Cyprus	43 (4.8)	22 (4.2)	2 (0.1)	0 (0.0)	33 (4.8)
Czech Republic	1 (0.9)	40 (4.4)	34 (4.2)	14 (3.1)	11 (2.9)
England	88 (2.7)	9 (2.0)	0 (0.0)	1 (0.0)	2 (1.7)
France	62 (4.3)	12 (2.4)	3 (0.7)	1 (0.3)	22 (3.8)
Germany	0 (0.0)	37 (2.7)	7 (1.5)	53 (2.9)	4 (1.3)
Greece	15 (2.8)	41 (4.5)	11 (3.5)	2 (0.1)	32 (4.1)
Hong Kong, SAR	29 (3.9)	16 (3.6)	0 (0.0)	0 (0.0)	55 (4.8)
Hungary	0 (0.0)	29 (3.7)	16 (2.5)	53 (3.6)	2 (1.1)
Iceland r	0 (0.0)	15 (0.3)	50 (0.4)	10 (0.2)	26 (0.4)
Iran, Islamic Rep. of	78 (3.8)	5 (1.3)	0 (0.1)	4 (1.8)	13 (3.2)
Israel	16 (3.4)	68 (3.8)	2 (1.3)	1 (0.0)	12 (2.8)
Italy	1 (0.6)	1 (0.9)	14 (2.5)	78 (3.1)	6 (1.9)
Kuwait	27 (3.6)	7 (2.4)	0 (0.0)	1 (0.0)	65 (4.3)
Latvia	2 (1.1)	3 (1.6)	19 (3.6)	74 (4.0)	2 (1.2)
Lithuania	0 (0.0)	0 (0.0)	0 (0.0)	98 (1.3)	2 (1.3)
Macedonia, Rep. of	0 (0.0)	1 (0.7)	0 (0.0)	99 (0.7)	0 (0.3)
Moldova, Rep. of	2 (1.0)	0 (0.0)	4 (1.8)	91 (2.5)	3 (1.4)
Morocco	61 (4.9)	9 (3.1)	3 (2.1)	3 (2.2)	24 (4.2)
Netherlands	75 (4.1)	14 (2.8)	2 (1.2)	0 (0.0)	8 (2.8)
New Zealand	76 (3.5)	15 (2.9)	2 (0.9)	2 (1.4)	4 (2.3)
Norway	0 (0.0)	3 (1.1)	47 (5.0)	39 (4.3)	12 (3.3)
Romania	0 (0.0)	3 (1.3)	3 (1.5)	91 (2.4)	3 (1.7)
Russian Federation	0 (0.0)	0 (0.0)	53 (4.6)	43 (4.4)	4 (1.2)
Scotland	74 (4.2)	21 (3.4)	1 (0.4)	0 (0.0)	5 (2.2)
Singapore	49 (3.6)	48 (3.6)	0 (0.0)	0 (0.0)	2 (1.2)
Slovak Republic	4 (1.6)	32 (3.8)	11 (2.6)	22 (3.3)	31 (3.9)
Slovenia	21 (3.8)	68 (4.2)	4 (1.7)	0 (0.0)	7 (2.2)
Sweden	1 (0.8)	25 (4.0)	70 (4.2)	3 (1.4)	2 (1.2)
Turkey	6 (2.0)	14 (3.1)	22 (4.0)	56 (4.6)	2 (1.2)
United States	95 (2.0)	3 (1.8)	0 (0.0)	0 (0.0)	2 (1.0)
International Avg.	31 (0.5)	18 (0.5)	12 (0.4)	27 (0.4)	12 (0.4)

Background data provided by schools.

a In the Russian Federation, primary schools have a duration of 3 or 4 years. Students stay with the same primary teacher all though primary school.

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

Exhibit 6.3: Teachers' General or Specialized Teaching Responsibilities



	Percentage of Students Whose Teachers Reported								
Countries	Being the Only Teacher for All or Most of the Time	That Students Have Different Teachers for Different Subjects*	Sharing Teaching Responsibilities with Another Teacher	Other Situations					
Argentina	50 (4.9)	37 (4.4)	8 (2.9)	4 (1.9)					
Belize r	90 (3.9)	2 (1.6)	3 (1.7)	6 (3.1)					
Bulgaria	19 (3.1)	32 (4.2)	25 (3.5)	24 (3.4)					
Canada (O,Q)	58 (3.7)	22 (2.8)	7 (1.8)	13 (2.4)					
Colombia	54 (4.8)	34 (4.3)	6 (2.5)	6 (2.7)					
Cyprus	61 (5.3)	32 (5.4)	1 (0.7)	7 (2.4)					
Czech Republic	54 (5.1)	39 (5.0)	2 (1.1)	5 (1.8)					
England	52 (4.6)	30 (4.3)	10 (2.7)	8 (2.5)					
rance	50 (4.3)	30 (4.1)	9 (2.1)	11 (2.8)					
Germany	38 (2.4)	50 (3.0)	2 (0.8)	10 (2.1)					
Greece	47 (4.1)	41 (4.4)	0 (0.0)	12 (2.8)					
Hong Kong, SAR	11 (2.6)	89 (2.7)	1 (0.7)	0 (0.0)					
Hungary	28 (3.3)	51 (3.8)	9 (2.6)	11 (2.7)					
celand	80 (0.3)	8 (0.2)	5 (0.1)	7 (0.2)					
ran, Islamic Rep. of	92 (1.8)	2 (0.8)	2 (0.9)	4 (1.4)					
srael	21 (3.8)	77 (3.8)	2 (1.0)	0 (0.0)					
taly	2 (0.9)	85 (2.6)	11 (2.1)	2 (1.2)					
Kuwait r	20 (2.8)	79 (3.0)	0 (0.0)	1 (0.7)					
_atvia	55 (4.6)	41 (4.5)	0 (0.0)	4 (1.7)					
ithuania	100 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)					
Macedonia, Rep. of	83 (3.3)	12 (2.8)	1 (0.0)	4 (1.8)					
Moldova, Rep. of	59 (4.6)	38 (4.6)	0 (0.0)	3 (1.5)					
Morocco r	53 (5.5)	22 (4.4)	25 (4.9)	0 (0.0)					
Netherlands	59 (4.6)	2 (1.1)	25 (3.9)	14 (3.4)					
New Zealand	69 (3.5)	14 (2.9)	5 (1.7)	12 (2.8)					
Norway	60 (3.8)	18 (3.1)	16 (3.2)	7 (1.8)					
Romania	51 (4.8)	46 (4.9)	0 (0.0)	2 (1.2)					
Russian Federation	98 (0.9)	1 (0.8)	0 (0.0)	1 (0.5)					
Scotland	70 (4.4)	8 (2.9)	16 (3.5)	6 (2.1)					
Singapore	55 (4.0)	37 (3.8)	3 (1.5)	5 (1.6)					
Slovak Republic	43 (4.3)	38 (3.9)	3 (1.4)	16 (3.2)					
Slovenia	48 (3.8)	34 (3.6)	6 (2.2)	12 (2.6)					
Sweden	40 (3.2)	18 (2.8)	30 (3.2)	12 (2.3)					
Гurkey	57 (4.5)	27 (3.8)	1 (1.0)	14 (3.1)					
Jnited States	62 (4.4)	18 (3.5)	9 (1.9)	10 (2.6)					

Background data provided by teachers.

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.

^{*} May include having different teachers only for art, music, athletics, or other special activities.

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

Exhibit 6.4: Preparation to Teach Reading



			idents by Teachers Formal Education		Percent of
Countries	University Degree	College or University Program* of 2 or 3 Years	Completed Only Upper-Secondary School	Did Not Complete Upper-Secondary School	Students Taught by Certified Teachers
Argentina	2 (1.0)	89 (2.5)	9 (2.6)	0 (0.0)	94 (2.5)
Belize r	8 (2.7)	21 (3.8)	60 (4.7)	11 (3.0)	r 74 (4.4)
Bulgaria	76 (3.0)	24 (2.9)	1 (0.0)	0 (0.0)	100 (0.0)
Canada (O,Q)	92 (2.1)	6 (1.8)	1 (1.1)	0 (0.0)	100 (0.1)
Colombia	86 (2.9)	5 (1.5)	10 (2.4)	0 (0.0)	94 (1.7)
Cyprus	94 (2.5)	0 (0.0)	6 (2.5)	0 (0.0)	94 (2.8)
Czech Republic	77 (4.0)	10 (3.0)	12 (2.8)	0 (0.0)	
England	100 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	98 (1.2)
France	34 (3.3)	23 (2.7)	41 (3.8)	1 (1.0)	93 (2.1)
Germany	92 (0.8)	1 (0.6)	5 (0.9)	1 (0.6)	92 (1.2)
Greece	21 (3.9)	79 (3.9)	0 (0.0)	0 (0.0)	
Hong Kong, SAR	50 (4.0)	36 (3.9)	13 (3.0)	0 (0.0)	95 (1.9)
Hungary	99 (0.7)	1 (0.7)	0 (0.0)	0 (0.0)	73 (3.9)
Iceland	76 (0.4)	10 (0.3)	11 (0.2)	3 (0.1)	91 (0.2)
Iran, Islamic Rep. of	23 (3.6)	15 (2.4)	52 (4.1)	10 (2.5)	57 (4.3)
Israel	73 (3.3)	27 (3.3)	0 (0.0)	0 (0.0)	97 (1.4)
Italy	26 (3.4)	7 (2.0)	68 (3.3)	0 (0.0)	78 (3.1)
Kuwait					53 (4.0)
Latvia	87 (2.6)	8 (2.0)	5 (1.5)	0 (0.0)	92 (2.3)
Lithuania	87 (2.9)	12 (2.7)	1 (0.9)	0 (0.0)	85 (3.1)
Macedonia, Rep. of	26 (4.2)	68 (4.3)	7 (1.8)	0 (0.0)	99 (0.7)
Moldova, Rep. of	51 (4.2)	46 (4.3)	2 (1.0)	1 (0.6)	43 (4.6)
Morocco					89 (2.8)
Netherlands	99 (0.6)	0 (0.0)	1 (0.6)	0 (0.0)	99 (0.9)
New Zealand	100 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	100 (0.0)
Norway	99 (0.8)	1 (0.6)	1 (0.5)	0 (0.0)	97 (1.1)
Romania	5 (1.8)	24 (3.4)	71 (3.7)	0 (0.3)	82 (3.0)
Russian Federation	62 (4.0)	37 (4.0)	1 (0.7)	0 (0.0)	96 (1.4)
Scotland	94 (2.3)	0 (0.0)	6 (2.3)	0 (0.0)	99 (0.8)
Singapore	49 (4.4)	38 (4.2)	13 (2.6)	0 (0.0)	95 (1.8)
Slovak Republic	83 (3.5)	0 (0.0)	17 (3.5)	0 (0.0)	94 (2.1)
Slovenia	25 (3.3)	75 (3.4)	1 (0.0)	0 (0.0)	95 (1.9)
Sweden	93 (2.0)	0 (0.0)	7 (2.0)	0 (0.0)	93 (1.6)
Turkey	45 (3.9)	54 (4.0)	1 (0.9)	0 (0.0)	98 (1.2)
United States	100 (0.5)	0 (0.5)	0 (0.0)	0 (0.0)	95 (1.4)
International Avg.	65 (0.5)	22 (0.5)	13 (0.4)	1 (0.1)	89 (0.4)

Background data provided by teachers.

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.

Includes technical/occupational/vocational programs. For a detailed description of teacher training in PIRLS countries, see Mullis, I.V.S., Martin, M.D., Kennedy, A.M., & Flaherty, C.L. (Eds.) (2002). PIRLS 2001 encyclopedia: A reference guide to reading education in the countries participating in IEA's Progress in International Reading Literacy Study (PIRLS). Chestnut Hill, MA: Boston College.

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

Exhibit 6.5: Areas of Emphasis in Teachers' Formal Education and/or Training



Countries			Pedagogy/			1	Children's	
	Language	Literature	Teaching Reading	Psychology	Remedial Reading	Reading Theory	Language Development	Special Educatio
Argentina	50 (5.0)	36 (4.8)	46 (4.8)	r 32 (5.0)	34 (4.6)	22 (4.3)	37 (4.7)	8 (2.
Belize	r 76 (4.1)	r 46 (5.9)	r 33 (5.7)	r 41 (5.8)	r 15 (5.2)	r 14 (4.4)	r 18 (4.0)	r 22 (5.
Bulgaria	96 (1.7)	93 (2.1)	94 (2.3)	87 (2.3)	29 (3.8)	58 (4.6)	59 (4.5)	48 (4.
Canada (O,Q)	72 (3.0)	46 (3.7)	51 (3.4)	44 (3.4)	17 (2.5)	22 (3.1)	26 (3.3)	22 (2.
Colombia	37 (4.6)	28 (4.2)	30 (4.5)	17 (3.7)	10 (3.0)	18 (3.2)	24 (3.2)	10 (2.
Cyprus	79 (3.3)	49 (5.0)	62 (4.3)	60 (4.8)	15 (3.9)	29 (4.3)	43 (4.3)	13 (3.
Czech Republic	86 (3.3)	71 (4.1)	74 (3.8)	65 (4.4)	32 (4.6)	31 (4.4)	23 (3.9)	27 (4.
England	66 (4.6)	59 (4.8)	41 (5.1)	32 (4.3)	13 (3.2)	20 (4.2)	36 (4.9)	12 (3.
France	53 (4.6)	26 (3.2)	32 (3.9)	15 (3.1)	11 (2.3)	14 (2.7)	12 (2.6)	2 (1.
Germany	51 (3.1)	38 (2.8)	57 (3.2)	47 (3.3)	14 (2.3)	14 (2.3)	25 (3.1)	2 (1.
Greece	69 (4.0)	48 (4.8)	47 (5.4)	49 (5.2)	16 (3.9)	r 16 (3.4)	36 (4.7)	10 (2.
Hong Kong, SAR	64 (4.2)	35 (4.3)	54 (4.3)	31 (3.8)	7 (2.1)	10 (2.6)	15 (3.3)	10 (2.
Hungary	91 (2.4)	81 (3.3)	79 (3.7)	68 (3.7)	10 (2.6)	23 (3.5)	38 (4.1)	5 (2.
Iceland	54 (0.4)	47 (0.4)	52 (0.4)	45 (0.4)	r 9 (0.2)	26 (0.4)	33 (0.4)	r 9 (0.
Iran, Islamic Rep. of	39 (3.7)	31 (4.0)	50 (4.0)	23 (3.3)	19 (3.2)	18 (3.2)	23 (3.1)	7 (2.
Israel	32 (3.8)	41 (5.2)	37 (4.4)	r 8 (2.3)	16 (3.2)	28 (4.2)	19 (3.3)	16 (3.
Italy	86 (2.5)	61 (3.7)	34 (2.9)	35 (3.3)	19 (2.5)	18 (2.7)	27 (3.5)	23 (3.
Kuwait	84 (2.9)	59 (4.2)	69 (3.8)	37 (4.2)	36 (4.0)	29 (3.9)	35 (3.8)	16 (3.
Latvia	74 (3.5)	63 (4.2)	82 (3.5)	61 (4.7)	12 (2.8)	33 (4.4)	37 (4.4)	20 (3.
Lithuania	85 (3.1)	65 (3.7)	78 (3.6)	68 (4.2)	17 (3.4)	36 (4.1)	39 (4.2)	32 (4.
Macedonia, Rep. of	80 (3.6)	82 (3.3)	81 (3.8)	78 (3.8)	36 (4.2)	42 (4.3)	50 (4.6)	r 21 (3.
Moldova, Rep. of	77 (3.9)	62 (4.3)	81 (3.1)	63 (4.4)	27 (4.0)	44 (4.8)	49 (4.7)	33 (4.
Morocco	87 (3.7)	67 (5.2)	r 41 (5.2)	r 45 (5.5)	r 29 (5.1)	r 26 (4.7)	r 30 (5.4)	36 (4.
Netherlands	47 (4.2)	24 (4.2)	45 (4.5)	21 (3.7)	16 (3.0)	23 (4.0)	27 (4.1)	10 (2.
New Zealand	65 (4.4)	54 (4.3)	59 (4.5)	24 (4.2)	17 (2.8)	36 (4.7)	37 (4.2)	11 (2.
Norway	74 (3.4)	67 (4.0)	73 (3.9)	34 (4.2)	25 (3.8)	37 (4.0)	56 (4.3)	31 (3.
Romania	94 (1.9)	92 (2.6)	90 (2.5)	81 (3.4)	62 (4.1)	54 (4.5)	79 (3.7)	21 (3.
Russian Federation	90 (1.8)	80 (3.8)	93 (1.7)	78 (3.2)	9 (2.3)	49 (3.3)	51 (3.4)	5 (1.
Scotland	83 (4.0)	53 (5.5)	52 (5.3)	52 (5.0)	11 (3.4)	26 (4.9)	54 (5.2)	11 (3.
Singapore	82 (3.2)	45 (3.8)	65 (4.0)	33 (3.5)	7 (2.3)	20 (3.3)	33 (4.2)	5 (1.
Slovak Republic	88 (2.9)	82 (2.8)	69 (3.8)	63 (4.0)	9 (2.5)	45 (4.3)	22 (3.7)	9 (2.
Slovenia	71 (4.2)	48 (4.1)	45 (4.4)	50 (4.2)	10 (2.5)	18 (3.3)	19 (3.0)	12 (2.
Sweden	79 (2.4)	67 (2.7)	46 (3.6)	37 (3.4)	9 (2.0)	24 (3.1)	45 (3.4)	13 (2.
Turkey	44 (5.1)	33 (4.3)	63 (4.5)	48 (4.4)	8 (2.6)	29 (4.5)	32 (4.7)	16 (3.
United States	70 (3.6)	60 (3.6)	60 (3.7)	25 (4.0)	27 (4.2)	37 (4.0)	47 (4.2)	11 (2.

Background data provided by teachers.

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.

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

internationally, the majority of students in the PIRLS countries had teachers with some specialized training in language (71%), literature (55%), and reading pedagogy (59%).

What Instructional Resources Do Teachers Use?

Exhibits 6.6 and 6.7 contain reports from principals or school heads about the types of materials forming the basis of their schools' instructional program in reading and the types used as supplements. On average, internationally, school principals reported students primarily had reading series (49%) and textbooks (75%) as the basis of their reading instructional programs. In several countries, most fourth-grade students (85% or more) had a reading series as the basis of their reading instructional program in the Czech Republic, Iceland, and Scotland. In comparison, however, the textbook was used more frequently in quite a few countries. Most students (85% or more) had textbooks as the basis of their reading instructional program in Bulgaria, Cyprus, the Czech Republic, Germany, Greece, Hong Kong, Hungary, Iran, Italy, Kuwait, Latvia, Lithuania, Macedonia, Norway, Romania, the Russian Federation, Singapore, the Slovak Republic, and Turkey. Interestingly, it can be noted that in the Czech Republic most students had both a series and textbook as the basis of their reading instructional program. Several of the other countries using predominantly textbooks supplemented their instructional programs with a reading series for more than half the students, including Cyprus, Germany, Italy, Norway, Romania, Singapore, and Turkey (see Exhibit 6.7).

Schools seldom reported using a variety of children's books as the basis of many students' reading programs, with the highest percentages in England (48%) and France (46%). However, 69 percent of students, on average, internationally, had a variety of children's books as supplementary materials. Most students (85% or more) had children's books as supplementary materials in the Czech Republic, Germany, Hungary, Latvia, Lithuania, the Russian Federation, Singapore, the Slovak Republic, and Slovenia.

Children's newspapers and magazines were used as supplementary materials for the majority of children, on average, internationally. The only country to report much use of children's newspapers and magazines as the basis of reading instruction was France (32%), but most programs relied on these materials as supplements for about half of their students. The most supplementary use of children's newspapers and magazines was in Slovenia (85%).

Reading across the curriculum was encouraged in a number of countries, but rarely formed the basis of reading instructional programs at the fourth grade. School principals in Morocco reported that materials from different curricular areas formed the basis of the reading instructional program for 64 percent of their students, but the next highest use was for 47 percent of students in France and 35 percent in Colombia. On average, internationally, however, 57 percent of students had materials from different curricular areas as supplements to their reading program. Supplementary use was pervasive across countries, with the most extensive use in Scotland (86%).

Exhibit 6.8 presents teachers' reports about how often they used a textbook or a reading series in reading instruction and how often this was accompanied by workbooks and worksheets. On average, internationally, two-thirds of the students had daily reading instruction based on a textbook or reading series. Almost all students (95% or more) had such instruction in Bulgaria, Cyprus, Greece, Hungary, Latvia, the Russian Federation, and the Slovak Republic. On average, internationally, workbooks were used on a daily basis for about one-third of the students (32%) and on a weekly basis for nearly half the students (46%). The most popular instructional approach used for the majority of students (international average 53%) was daily instruction based on a textbook or reading series, accompanied by at least weekly exercises in workbooks or worksheets. As shown in Exhibit 6.9, teachers who reported using workbooks and worksheets reported using them less frequently for students with higher achievement in reading.

As shown in Exhibit 6.10, three-fourths of students (76%) were given at least two of the following on a monthly basis to supplement their reading instructional program – children's books, newspapers/magazines, computerized activities, or Internet assignments. Nearly all students in all countries (international average 95%) had at least a monthly opportunity to read children's books, and many (international average 72%) to read children's newspapers and magazines. Although used hardly at all in some countries,

teachers reported at least monthly use of computerized reading instruction for 63 to 64 percent of students in Singapore and the United States. Similarly, reading material on the Internet was infrequent in more than half the countries. Monthly use for 50 percent or more of students was reported by Canada (O,Q) (54%), New Zealand (56%), and the United States (50%).

Since PIRLS 2001 assessed two major purposes for reading – literary and informational, teachers were asked how often they asked their students to read fiction and nonfiction. The results for use of fiction are presented in Exhibit 6.11 and for nonfiction in Exhibit 6.13. On average, internationally, the use of fiction was much more widespread than the use of nonfiction. Fiction was being used for reading instruction at least weekly for 84 percent of students compared to nonfiction for 56 percent of students. Exhibit 6.12 provides further detail about the different types of fiction used for reading instruction. On average, internationally, teachers reported asking about two-thirds of students (65%) to read stories on at least a weekly basis. Approximately one-third to half also were asked to read fables/fairy tales (45%), poems (41%), and longer books (31%). Countries reporting the lowest percentages of students reading fiction at least weekly were Greece (58%), Hong Kong (43%), and Kuwait (51%).

Nonfiction reading included descriptions and explanations about things, people or events; instruction or manuals about how things work; and charts, diagrams, and graphs. The countries where teachers reported asking the highest percentages of students to read nonfiction on at least a weekly basis were Argentina and the United States (both 88%), with Colombia, Germany, and Italy next (74 to 77%). Countries with the lowest percentages were the Czech Republic, France, Hong Kong, Iceland, and the Slovak Republic (28 to 34%).

Exhibit 6.14 contains teachers' reports about using films, videos, and television in their reading instruction. On average, internationally, 43 percent of students were asked to watch a film version of a children's book or story at least monthly, 60 percent to watch movies, videos or television to obtain information, and 56 percent to compare material presented in different media. Watching movies of stories and to obtain information was especially prevalent for students (90% or more) in Bulgaria, Macedonia, and Romania.

Exhibit 6.6: Materials Schools Used as a Basis for Their Reading Instructional Programs



c	Materials from									
Countries	Reading Series	Textbooks	Variety of Children's Books	Children's Newspapers and/or Magazines	Materials from Different Curricular Areas					
Argentina	52 (4.6)	63 (5.0)	40 (4.6)	17 (3.9)	26 (4.2)					
Belize	74 (7.3)	r 55 (7.0)	8 (4.5)	1 (0.9)	r 10 (3.5)					
Bulgaria	59 (3.8)	99 (0.6)	5 (1.7)	3 (1.4)	6 (1.9)					
Canada (O,Q)	35 (3.5)	41 (3.2)	36 (3.3)	4 (1.6)	21 (3.3)					
Colombia	45 (5.0)	52 (5.0)	28 (4.6)	21 (3.4)	35 (4.5)					
Cyprus	r 8 (3.0)	88 (2.4)	5 (2.2)	3 (1.9)	4 (2.1)					
Czech Republic	85 (3.2)	90 (2.5)	4 (2.1)	0 (0.0)	0 (0.0)					
England	53 (4.5)	28 (4.0)	48 (4.7)	5 (1.8)	21 (3.7)					
France	44 (4.9)	53 (5.2)	46 (4.6)	32 (4.1)	47 (4.9)					
Germany	9 (2.4)	93 (1.9)	3 (1.3)	0 (0.0)	17 (2.9)					
Greece		95 (2.6)	1 (0.0)	0 (0.0)	2 (1.3)					
Hong Kong, SAR	16 (3.1)	95 (1.8)	4 (1.9)	3 (1.5)	3 (1.3)					
Hungary	70 (3.6)	86 (2.5)	1 (0.6)	1 (1.3)	1 (0.0)					
Iceland	r 88 (0.3)	r 51 (0.4)	r 13 (0.3)	r 0 (0.1)	r 3 (0.1)					
Iran, Islamic Rep. of	23 (3.9)	89 (3.0)	8 (3.6)	3 (1.4)	11 (2.8)					
Israel	48 (4.4)	74 (3.8)	29 (3.8)	12 (2.6)	28 (3.9)					
Italy	8 (1.7)	91 (2.2)	5 (1.7)	2 (1.1)	12 (2.3)					
Kuwait	17 (2.8)	97 (0.1)	13 (2.7)	12 (2.6)	9 (1.8)					
Latvia	17 (3.0)	86 (2.8)	3 (1.4)	1 (0.9)	2 (1.3)					
Lithuania	52 (4.2)	96 (1.6)	3 (1.5)	2 (1.2)	1 (1.0)					
Macedonia, Rep. of	73 (4.0)	96 (1.6)	17 (3.4)	16 (3.6)	11 (2.4)					
Moldova, Rep. of	72 (3.6)	81 (2.6)	6 (1.8)	2 (1.3)	11 (2.5)					
Morocco	52 (5.0)	64 (5.0)	19 (4.0)	12 (3.3)	64 (4.9)					
Netherlands	52 (5.1)	46 (4.8)	19 (3.9)	2 (1.0)	4 (1.7)					
New Zealand	83 (3.2)	8 (2.3)	33 (4.1)	5 (1.9)	16 (2.8)					
Norway	25 (3.9)	85 (3.8)	15 (4.3)	0 (0.0)	10 (3.8)					
Romania	24 (3.6)	98 (1.1)	9 (2.5)	3 (1.2)	11 (3.0)					
Russian Federation	56 (4.0)	96 (1.5)	1 (0.5)	1 (0.8)	3 (1.2)					
Scotland	95 (2.1)	56 (5.5)	16 (3.5)	2 (1.4)	7 (2.5)					
Singapore	22 (2.9)	97 (1.3)	2 (0.8)	2 (1.2)	6 (2.0)					
Slovak Republic	65 (3.5)	91 (2.6)	6 (2.0)	6 (2.3)	2 (0.7)					
Slovenia	81 (3.3)	73 (3.9)	7 (2.3)	1 (0.0)	1 (0.0)					
Sweden	65 (4.3)	57 (3.9)	36 (4.8)	3 (1.6)	20 (3.6)					
Turkey	11 (2.5)	98 (1.1)	4 (1.7)	1 (0.9)	3 (1.2)					
United States	77 (3.6)	54 (3.8)	32 (4.4)	3 (1.5)	16 (2.8)					

Background data provided by schools.

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

Exhibit 6.7: Materials Schools Used as a Supplement to Their Reading Instructional Programs



Countries	Reading Series	Textbooks	Variety of Children's Books	Children's Newspapers and/or Magazines	Materials from Different Curricular Areas
Argentina	30 (4.1)	28 (4.7)	49 (4.2)	69 (4.3)	52 (4.1)
Belize	14 (6.1)	r 25 (6.9)	54 (7.6)	40 (5.6)	r 45 (4.9)
Bulgaria	36 (3.7)	0 (0.0)	79 (3.3)	50 (4.4)	60 (4.0)
Canada (O,Q)	47 (3.6)	36 (3.1)	53 (3.7)	62 (3.1)	59 (3.7)
Colombia	16 (3.1)	31 (5.2)	39 (5.2)	44 (4.8)	37 (5.1)
Cyprus	r 63 (5.8)	11 (2.4)	68 (5.3)	55 (4.8)	66 (4.2)
Czech Republic	12 (2.7)	8 (2.2)	90 (3.0)	64 (4.4)	61 (4.2)
England	34 (4.2)	59 (4.7)	46 (4.8)	49 (4.6)	69 (4.5)
France	39 (5.7)	32 (4.8)	41 (5.0)	48 (4.6)	41 (4.6)
Germany	69 (3.8)	3 (1.3)	86 (2.8)	55 (3.7)	57 (4.3)
Greece		2 (2.2)	51 (4.6)	23 (3.7)	56 (4.1)
Hong Kong, SAR	53 (4.7)	1 (0.9)	68 (4.0)	48 (4.1)	52 (4.4)
Hungary	20 (3.2)	9 (2.4)	86 (2.9)	50 (3.9)	52 (4.3)
celand	r 7 (0.2)	r 39 (0.4)	r 77 (0.4)	r 29 (0.4)	r 69 (0.3)
ran, Islamic Rep. of	34 (4.2)	5 (2.0)	54 (4.2)	53 (4.6)	46 (4.8)
srael	37 (4.3)	24 (3.8)	61 (4.2)	49 (4.4)	58 (4.7)
taly	64 (3.8)	3 (1.1)	78 (3.0)	39 (3.8)	54 (4.3)
Kuwait	44 (4.2)	1 (0.0)	57 (3.6)	56 (4.6)	35 (3.0)
Latvia	42 (4.5)	12 (2.9)	90 (2.1)	71 (4.2)	63 (4.4)
Lithuania	34 (4.2)	2 (1.2)	89 (2.4)	66 (3.7)	66 (3.6)
Macedonia, Rep. of	12 (2.9)	3 (1.4)	68 (4.1)	68 (4.3)	50 (4.2)
Moldova, Rep. of	19 (3.4)	15 (2.7)	74 (3.8)	58 (4.3)	52 (4.4)
Morocco	16 (4.3)	14 (3.6)	38 (5.4)	26 (4.7)	16 (4.0)
Netherlands	41 (5.1)	53 (4.9)	79 (4.0)	63 (4.8)	75 (4.1)
New Zealand	10 (2.8)	38 (4.5)	58 (4.2)	70 (4.2)	72 (3.5)
Norway	66 (4.7)	13 (3.6)	76 (4.9)	43 (5.1)	64 (5.1)
Romania	68 (4.2)	0 (0.0)	69 (3.6)	55 (4.7)	47 (4.8)
Russian Federation	41 (3.9)	4 (1.5)	97 (1.1)	71 (3.7)	70 (3.4)
Scotland	3 (1.5)	41 (5.3)	80 (3.6)	38 (5.1)	86 (3.6)
Singapore	60 (3.8)	2 (1.2)	89 (2.4)	69 (3.1)	59 (3.7)
Slovak Republic	13 (2.8)	8 (2.5)	87 (2.7)	75 (3.8)	59 (4.5)
Slovenia	13 (2.6)	19 (3.4)	88 (2.6)	85 (3.3)	64 (4.2)
Sweden	13 (2.9)	19 (3.6)	52 (4.9)	49 (4.8)	63 (4.8)
Turkey	61 (4.3)	2 (1.1)	73 (3.8)	31 (3.8)	40 (3.9)
United States	16 (3.1)	32 (3.9)	62 (5.0)	71 (4.1)	74 (4.2)

Background data provided by schools.

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

Exhibit 6.8: Teachers' Use of Textbooks/Reading Series and Workbooks/Worksheets for Reading Instruction



		Percentage of Students Whose Teachers Used										
Countries	Textbooks	or a Readin	g Series	Workboo	oks or Work	sheets						
Countries -	Daily	Weekly	1-2 Times a Month or Less	Daily	Weekly	1-2 Times a Month or Less	Both Textbooks and Workbooks Daily	Textbooks Daily and Workbooks at Least Weekly				
Argentina	57 (4.9)	36 (4.7)	7 (2.0)	20 (3.9)	48 (4.5)	32 (4.6)	12 (2.9)	42 (5.0)				
Belize	69 (4.3)	29 (4.3)	2 (1.1)	r 20 (5.6)	53 (5.5)	27 (4.3)	16 (4.9)	43 (4.8)				
Bulgaria	97 (0.9)	3 (0.8)	1 (0.6)	53 (3.4)	23 (2.9)	24 (3.1)	52 (3.4)	73 (3.2)				
Canada (O,Q)	41 (3.2)	35 (3.2)	23 (2.9)	29 (3.3)	48 (4.2)	24 (3.2)	19 (2.9)	36 (3.3)				
Colombia	49 (4.4)	43 (4.3)	9 (2.2)	21 (3.5)	54 (5.3)	25 (4.8)	12 (3.0)	39 (4.7)				
Cyprus	96 (1.8)	3 (1.6)	1 (0.7)	16 (3.9)	52 (5.3)	32 (4.9)	15 (3.8)	64 (5.2)				
Czech Republic	68 (4.1)	30 (3.9)	2 (1.3)	19 (3.6)	36 (4.6)	45 (4.4)	18 (3.5)	43 (4.5)				
England	43 (4.7)	41 (4.6)	16 (3.5)	23 (3.7)	57 (4.6)	20 (3.4)	14 (3.5)	37 (4.5)				
France	28 (4.3)	52 (4.5)	20 (3.2)	15 (3.2)	58 (4.1)	27 (3.8)	9 (2.6)	25 (3.9)				
Germany	43 (2.8)	44 (2.9)	13 (2.1)	49 (3.0)	42 (2.9)	9 (1.6)	26 (2.7)	39 (2.8)				
Greece	95 (2.0)	2 (1.2)	3 (1.5)	24 (3.9)	52 (4.4)	24 (3.7)	22 (3.7)	69 (4.0)				
Hong Kong, SAR	74 (3.9)	18 (3.4)	8 (2.1)	22 (4.1)	59 (4.5)	19 (3.2)	20 (3.9)	67 (3.8)				
Hungary	99 (1.0)	1 (1.0)	0 (0.0)	87 (3.0)	12 (2.7)	1 (1.0)	84 (3.0)	95 (1.9)				
Iceland	69 (0.4)	26 (0.3)	5 (0.2)	54 (0.4)	39 (0.4)	8 (0.2)	40 (0.3)	61 (0.4)				
Iran, Islamic Rep. of	54 (3.5)	36 (3.2)	10 (2.3)	5 (1.6)	27 (3.4)	68 (3.8)	2 (1.0)	19 (2.9)				
Israel	61 (4.6)	32 (4.2)	7 (2.5)	44 (4.4)	49 (4.6)	8 (2.5)	32 (4.1)	55 (4.6)				
Italy	68 (3.7)	24 (3.2)	8 (1.7)	24 (2.9)	58 (3.3)	18 (2.9)	15 (2.8)	56 (4.0)				
Kuwait	79 (2.4)	17 (2.6)	4 (1.3)	38 (3.9)	54 (4.1)	8 (1.9)	24 (3.0)	65 (2.6)				
Latvia	95 (1.6)	5 (1.6)	0 (0.0)	57 (3.5)	32 (3.3)	11 (2.5)	56 (3.6)	85 (3.0)				
Lithuania	93 (2.1)	7 (2.1)	0 (0.0)	83 (3.4)	13 (3.0)	4 (1.6)	80 (3.6)	89 (2.5)				
Macedonia, Rep. of	85 (2.9)	13 (2.5)	3 (1.3)	14 (2.7)	65 (4.3)	22 (3.4)	12 (2.5)	68 (3.5)				
Moldova, Rep. of	84 (2.9)	15 (2.7)	1 (0.9)	47 (4.7)	40 (4.6)	13 (2.5)	43 (4.5)	74 (3.4)				
Morocco	63 (4.9)	17 (3.8)	20 (3.8)	27 (4.5)	53 (5.3)	20 (4.7)	15 (3.8)	47 (5.3)				
Netherlands	22 (3.7)	55 (4.8)	24 (4.1)	14 (3.1)	59 (4.1)	28 (3.9)	8 (2.3)	14 (3.2)				
New Zealand	43 (4.7)	35 (4.2)	21 (3.6)	10 (2.4)	57 (4.5)	33 (4.0)	8 (2.2)	32 (4.2)				
Norway	63 (4.6)	34 (4.5)	3 (1.4)	27 (3.7)	66 (4.0)	8 (2.0)	22 (3.8)	61 (4.6)				
Romania	86 (3.3)	13 (3.3)	0 (0.0)	43 (4.1)	41 (3.9)	15 (3.1)	37 (4.0)	74 (3.9)				
Russian Federation	99 (0.7)	1 (0.5)	0 (0.0)	5 (1.8)	15 (2.9)	80 (3.6)	5 (1.8)	20 (3.6)				
Scotland	67 (3.9)	32 (3.8)	1 (0.0)	29 (4.7)	60 (4.8)	11 (2.3)	27 (4.6)	60 (4.0)				
Singapore	55 (4.2)	43 (4.1)	2 (1.1)	60 (3.6)	39 (3.5)	2 (0.9)	44 (4.1)	55 (4.2)				
Slovak Republic	98 (1.2)	2 (1.2)	0 (0.0)	22 (3.3)	50 (4.2)	28 (3.7)	22 (3.3)	72 (3.7)				
Slovenia	56 (4.4)	39 (4.5)	5 (1.5)	48 (4.4)	48 (4.5)	4 (1.6)	30 (4.3)	55 (4.5)				
Sweden	27 (3.4)	31 (3.5)	42 (3.5)	16 (2.4)	50 (3.2)	34 (3.5)	6 (1.5)	19 (3.0)				
Turkey	83 (3.2)	16 (3.2)	1 (0.6)	22 (3.4)	44 (4.4)	34 (4.5)	20 (3.5)	58 (4.7)				
United States	57 (3.9)	20 (3.5)	23 (3.9)	29 (3.6)	56 (4.4)	14 (3.3)	25 (3.5)	55 (4.0)				

Background data provided by teachers.

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.

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

Exhibit 6.9: Teachers' Use of Workbooks or Worksheets



6. 45.	Every Day or Almost Every Day		Once or Tw	vice a Week	Once or Tw	ice a Month	Never or Almost Never	
Countries	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievemen
Argentina	45 (4.9)	419 (10.0)	44 (5.0)	422 (10.2)	10 (3.2)	426 (11.9)	1 (0.0)	~ ~
Belize	32 (5.5)	324 (10.9)	66 (5.2)	321 (6.3)	2 (1.9)	~ ~	0 (0.0)	~ ~
Bulgaria	19 (3.0)	550 (11.9)	57 (4.1)	555 (5.1)	21 (3.5)	538 (9.0)	4 (1.2)	548 (15.5)
Canada (O,Q)	16 (2.6)	543 (4.3)	65 (3.2)	545 (2.9)	16 (2.3)	544 (6.2)	2 (1.0)	~ ~
Colombia	50 (5.1)	415 (5.8)	41 (5.0)	430 (7.7)	6 (1.8)	452 (22.2)	3 (1.8)	394 (80.2)
Cyprus	25 (3.9)	496 (5.8)	57 (4.5)	496 (4.0)	16 (3.8)	487 (6.5)	2 (0.0)	~ ~
Czech Republic	81 (3.0)	537 (2.6)	18 (3.0)	536 (4.6)	1 (0.7)	~ ~	0 (0.0)	~ ~
England	10 (2.7)	547 (10.1)	64 (4.4)	556 (5.2)	24 (4.0)	553 (5.2)	2 (1.2)	~ ~
France	11 (2.4)	511 (10.6)	70 (3.5)	526 (2.7)	18 (3.1)	530 (6.1)	1 (0.9)	~ ~
Germany	15 (2.4)	540 (5.8)	46 (2.7)	538 (2.8)	32 (3.0)	544 (3.6)	8 (1.6)	531 (6.6)
Greece	24 (3.8)	532 (9.2)	42 (4.8)	533 (5.6)	26 (4.2)	516 (6.6)	8 (2.9)	499 (9.7)
Hong Kong, SAR	25 (3.3)	530 (6.0)	50 (4.2)	530 (5.0)	23 (4.4)	527 (6.0)	3 (1.1)	502 (5.4)
Hungary	77 (3.5)	545 (2.4)	22 (3.3)	540 (7.0)	0 (0.1)	~ ~	1 (0.9)	~ ~
Iceland	26 (0.3)	503 (2.3)	54 (0.4)	517 (1.8)	16 (0.3)	511 (3.7)	5 (0.2)	522 (5.3)
Iran, Islamic Rep. of	41 (3.6)	420 (8.2)	56 (3.5)	408 (5.2)	3 (1.2)	423 (13.3)	0 (0.0)	~ ~
Israel	64 (4.9)	504 (5.5)	30 (4.6)	513 (9.2)	5 (2.3)	525 (21.1)	1 (0.0)	~ ~
Italy	37 (3.6)	531 (4.5)	50 (3.8)	544 (3.4)	11 (2.2)	554 (6.1)	2 (1.2)	~ ~
Kuwait	31 (3.3)	397 (8.0)	49 (4.2)	408 (5.9)	16 (3.1)	392 (13.9)	4 (1.5)	363 (32.1)
Latvia	25 (3.5)	547 (4.3)	47 (3.8)	539 (3.4)	24 (3.6)	550 (6.1)	4 (1.6)	565 (7.9)
Lithuania	57 (4.3)	544 (3.8)	32 (4.0)	542 (5.0)	8 (2.4)	536 (9.8)	3 (1.5)	554 (15.5
Macedonia, Rep. of	47 (4.3)	427 (7.9)	45 (4.4)	449 (8.3)	7 (2.2)	486 (19.6)	1 (0.8)	~ ~
Moldova, Rep. of	35 (3.9)	494 (6.6)	50 (3.5)	487 (5.8)	14 (2.9)	512 (10.9)	2 (1.0)	~ ~
Morocco	23 (4.8)	325 (16.9)	58 (5.4)	353 (11.1)	7 (2.5)	350 (28.6)	12 (3.7)	331 (19.8
Netherlands	17 (3.1)	553 (5.0)	70 (3.8)	552 (3.3)	11 (3.0)	565 (5.6)	2 (1.2)	~ ~
New Zealand	22 (3.4)	514 (7.8)	52 (4.6)	537 (5.3)	21 (3.6)	516 (11.5)	6 (1.8)	557 (6.4)
Norway	17 (3.0)	500 (8.3)	54 (4.2)	496 (3.6)	24 (3.8)	509 (6.3)	5 (2.1)	480 (7.1)
Romania	63 (3.9)	508 (6.3)	34 (3.8)	520 (7.0)	3 (1.2)	494 (27.1)	0 (0.0)	~ ~
Russian Federation	2 (1.2)	~ ~	33 (3.5)	525 (6.8)	48 (4.1)	529 (5.7)	17 (3.6)	536 (7.6)
Scotland	18 (3.9)	538 (10.1)	67 (4.5)	524 (4.4)	14 (2.8)	538 (9.6)	0 (0.5)	~ ~
Singapore	22 (3.4)	527 (9.5)	76 (3.7)	529 (5.9)	3 (1.2)	549 (20.3)	0 (0.0)	~ ~
Slovak Republic	49 (3.9)	520 (4.4)	37 (4.0)	519 (4.7)	13 (2.7)	519 (6.8)	1 (0.9)	~ ~
Slovenia	27 (3.4)	499 (3.4)	62 (3.5)	502 (2.6)	11 (2.5)	505 (8.7)	0 (0.0)	~ ~
Sweden	9 (2.0)	564 (6.7)	43 (3.7)	561 (3.5)	24 (2.8)	556 (4.7)	23 (3.2)	567 (3.5)
Turkey	39 (4.0)	454 (5.9)	61 (4.0)	447 (4.8)	0 (0.0)	~ ~	1 (0.7)	~ ~
United States	28 (4.2)	522 (6.2)	62 (4.4)	553 (4.5)	7 (2.0)	532 (12.7)	3 (1.4)	540 (21.0
International Avg.	32 (0.6)	496 (1.3)	50 (0.7)	502 (0.9)	14 (0.5)	509 (2.3)	4 (0.3)	499 (4.5)

Background data provided by teachers.

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

Exhibit 6.10: Use of Materials for Reading Instruction Other Than Textbooks or a Reading Series, Workbooks or Worksheets



Countries	A Variety of Children's		A Variation of Children's Community Two or More o								
Avecation	Books	Ne	Children's Newspapers and/or Magazines		Computer of tware for ng Instruction	Reading Material on the Internet	the Previous Supplementary Materials				
Argentina	85 (3.7)		89 (3.8)		13 (3.2)	10 (2.7)		80 (4.5)			
Belize	r 93 (2.5)	r	56 (4.9)	r	1 (1.0)	r 10 (4.1)	r	52 (5.6)			
Bulgaria	97 (0.7)		89 (2.8)		1 (0.9)	1 (0.0)		86 (2.8)			
Canada (O,Q)	98 (0.9)		48 (3.2)		45 (3.3)	54 (3.3)		78 (2.8)			
Colombia	97 (1.8)		84 (3.7)		9 (2.6)	2 (1.1)		83 (3.9)			
Cyprus	96 (1.3)		71 (3.9)		7 (2.7)	22 (3.7)		70 (3.9)			
Czech Republic	100 (0.0)		76 (3.8)		10 (2.9)	2 (0.4)		78 (3.7)			
England	100 (0.0)		58 (4.1)		46 (4.4)	49 (5.4)		79 (3.5)			
France	98 (0.9)		75 (3.4)		23 (3.4)	14 (2.5)		81 (3.3)			
Germany	95 (1.3)		61 (3.2)		22 (2.9)	9 (1.9)		64 (3.3)			
Greece	88 (3.4)		64 (4.6)		2 (1.2)	6 (2.7)		60 (4.4)			
Hong Kong, SAR	90 (2.7)		61 (5.0)		37 (4.6)	29 (3.9)		66 (4.8)			
Hungary	100 (0.1)		82 (3.2)		2 (1.2)	5 (2.1)		82 (3.3)			
Iceland	98 (0.1)		35 (0.3)		38 (0.4)	24 (0.3)		65 (0.4)			
Iran, Islamic Rep. of	74 (3.7)		70 (4.2)		1 (0.6)	2 (0.9)		54 (4.1)			
Israel	94 (2.1)		82 (3.5)		30 (3.9)	37 (3.6)		83 (3.6)			
Italy	97 (1.3)		67 (3.3)		12 (2.4)	11 (2.4)		69 (3.5)			
Kuwait	93 (2.1)	r	90 (1.8)	r	9 (2.4)	r 4 (1.7)	r	86 (2.8)			
Latvia	100 (0.0)		75 (4.0)		2 (1.2)	2 (1.2)		74 (4.2)			
Lithuania	100 (0.0)		91 (2.5)		7 (2.3)	4 (1.7)		90 (2.7)			
Macedonia, Rep. of	96 (1.7)		97 (1.2)	r	6 (2.2)	r 3 (1.6)	r	90 (2.6)			
Moldova, Rep. of	93 (2.8)		84 (3.3)		9 (3.2)	1 (0.9)		81 (3.6)			
Morocco	64 (5.0)	r	51 (5.3)	r	4 (2.2)	r 8 (2.9)	r	43 (5.7)			
Netherlands	96 (1.5)	r	40 (4.8)	r	30 (3.6)	r 8 (2.6)	r	56 (4.6)			
New Zealand	100 (0.1)		75 (4.1)		49 (4.7)	56 (4.2)		89 (2.8)			
Norway	97 (1.3)		54 (3.9)		28 (3.7)	19 (2.9)		67 (3.9)			
Romania	100 (0.1)		87 (2.3)		2 (1.1)	3 (1.4)		86 (2.5)			
Russian Federation	100 (0.0)		91 (1.9)		1 (0.6)	1 (0.7)		90 (1.8)			
Scotland	98 (1.4)		28 (4.3)		44 (5.0)	18 (3.5)		64 (4.4)			
Singapore	92 (2.1)		71 (3.8)		64 (3.6)	44 (4.2)		85 (2.6)			
Slovak Republic	100 (0.0)		96 (1.7)		0 (0.0)	0 (0.0)		96 (1.8)			
Slovenia	99 (0.7)		90 (2.6)		24 (3.6)	12 (2.9)		90 (2.7)			
Sweden	98 (0.7)		73 (2.9)		44 (3.2)	35 (3.4)		82 (2.7)			
Turkey	98 (1.1)		77 (3.7)		12 (2.6)	4 (1.4)		76 (4.0)			
United States	99 (0.6)		77 (4.2)		63 (3.9)	50 (4.7)		91 (1.8)			

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

Exhibit 6.11: Teachers' Use of Fiction for Reading Instruction

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

	Perc	entage of Stude Asked Them to	ents Whose Tea Read Fiction*	
Countries	At Leas	t Weekly	Less tha	n Weekly
	Percent of Students	Average Achievement	Percent of Students	Average Achievement
Argentina r	78 (4.4)	420 (7.3)	22 (4.4)	431 (16.7)
Belize r	89 (3.1)	323 (7.6)	11 (3.1)	320 (21.7)
Bulgaria	91 (2.5)	553 (3.9)	9 (2.5)	530 (16.0)
Canada (O,Q)	75 (2.5)	547 (2.6)	25 (2.5)	537 (3.7)
Colombia	91 (2.4)	426 (4.5)	9 (2.4)	391 (19.5)
Cyprus	86 (3.4)	496 (3.2)	14 (3.4)	479 (6.5)
Czech Republic	79 (3.6)	539 (2.7)	21 (3.6)	531 (4.9)
England	80 (3.9)	554 (4.4)	20 (3.9)	554 (7.3)
France	78 (3.7)	525 (3.0)	22 (3.7)	524 (6.2)
Germany	68 (3.1)	541 (2.5)	32 (3.1)	536 (3.1)
Greece	58 (4.7)	531 (6.1)	42 (4.7)	515 (4.9)
Hong Kong, SAR	43 (4.2)	531 (5.4)	57 (4.2)	526 (3.9)
Hungary	98 (1.1)	545 (2.2)	2 (1.1)	~ ~
Iceland	92 (0.2)	513 (1.3)	8 (0.2)	514 (4.2)
Iran, Islamic Rep. of	70 (3.3)	416 (5.8)	30 (3.3)	411 (8.0)
Israel	89 (3.0)	508 (4.1)	11 (3.0)	483 (17.3)
Italy	96 (1.5)	542 (2.5)	4 (1.5)	534 (5.5)
Kuwait r	51 (4.4)	401 (7.1)	49 (4.4)	397 (6.0)
Latvia	96 (1.7)	546 (2.4)	4 (1.7)	533 (14.3)
Lithuania	95 (1.7)	543 (2.7)	5 (1.7)	552 (15.6)
Macedonia, Rep. of	80 (3.2)	444 (5.4)	20 (3.2)	446 (12.4)
Moldova, Rep. of	99 (0.7)	493 (4.1)	1 (0.7)	~ ~
Morocco	66 (5.0)	339 (9.7)	34 (5.0)	357 (18.2)
Netherlands r	81 (3.7)	555 (2.9)	19 (3.7)	553 (5.2)
New Zealand	93 (2.2)	530 (4.1)	7 (2.2)	523 (13.7)
Norway	91 (2.1)	500 (3.3)	9 (2.1)	497 (8.9)
Romania	98 (1.0)	512 (4.5)	2 (1.0)	~ ~
Russian Federation	99 (0.8)	527 (4.6)	1 (0.8)	~ ~
Scotland	90 (2.9)	528 (4.1)	10 (2.9)	545 (10.3)
Singapore	72 (3.5)	522 (6.5)	28 (3.5)	544 (9.8)
Slovak Republic	89 (2.5)	519 (3.1)	11 (2.5)	508 (7.5)
Slovenia	90 (2.5)	501 (2.1)	10 (2.5)	503 (8.7)
Sweden	96 (1.3)	562 (2.3)	4 (1.3)	544 (9.1)
Turkey	96 (1.4)	450 (3.7)	4 (1.4)	473 (15.2)
United States	94 (3.0)	542 (3.9)	6 (3.0)	544 (12.1)
	(,	(,	()	, ,
International Avg.	84 (0.5)	501 (0.8)	16 (0.5)	495 (2.1)
	()	()	()	(=,

^{*}Based on teachers' responses to having students read the following types of text when having reading instruction and/or doing reading activities: fables and fairy tales; stories; longer books with chapters; poems; and plays (see Exhibit 6.12 for details on each text type). Response options Every day or almost every day and Once or twice a week were combined as At least

weekly. Response options Once or twice a month and Never or almost never were combined as Less than weekly.

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

Exhibit 6.12: Types of Fiction Used for Reading Instruction



Countries Fables and Fairy Tales Stories Longer Books with Chapters Poems Argentina 57 (4.9) 59 (4.9) r 7 (2.4) 37 (4.2) r 8 (3.9) Belize r 73 (5.5) r 70 (5.9) r 13 (4.1) 53 (6.6) r 8 (3.9) Bulgaria 74 (3.7) 85 (3.1) 22 (3.4) 58 (3.9) Canada (O,Q) 16 (2.4) 65 (2.8) 57 (3.1) 12 (2.2) Colombia 84 (3.5) 42 (4.3) 15 (3.2) 47 (4.8) Cyprus 71 (3.8) 66 (4.9) 14 (3.8) 48 (5.0) Czech Republic 41 (4.4) 62 (4.0) 38 (4.2) 23 (3.4) England 11 (3.4) 72 (4.6) 56 (4.6) 29 (4.2) France 18 (2.7) 44 (3.9) 45 (4.3) 35 (3.7) Germany 9 (1.7) 64 (3.0) 13 (1.9) 12 (2.0) Greece 27 (3.7) 42 (4.2) 7 (1.8) 27 (4.0) Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9)				of Students Who m to Read at Le		
Belize r 73 (5.5) r 70 (5.9) r 13 (4.1) 53 (6.6) r Bulgaria 74 (3.7) 85 (3.1) 22 (3.4) 58 (3.9) Canada (O,Q) 16 (2.4) 65 (2.8) 57 (3.1) 12 (2.2) Colombia 84 (3.5) 42 (4.3) 15 (3.2) 47 (4.8) Cyprus 71 (3.8) 66 (4.9) 14 (3.8) 48 (5.0) Czech Republic 41 (4.4) 62 (4.0) 38 (4.2) 23 (3.4) England 11 (3.4) 72 (4.6) 56 (4.6) 29 (4.2) France 18 (2.7) 44 (3.9) 45 (4.3) 35 (3.7) Germany 9 (1.7) 64 (3.0) 13 (1.9) 12 (2.0) Greece 27 (3.7) 42 (4.2) 7 (1.8) 27 (4.0) Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9) Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r Netherlands 78 (3.5) 74 (3.8) 74 (3.8) 74 (3.8) 75 (3.5) 80 (3.9) 87 (2.9) Morocco 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Source 175 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 40 (2.9) 90 (1.8) 4 (1.6)	ountries		Stories		Poems	Plays
Bulgaria 74 (3.7) 85 (3.1) 22 (3.4) 58 (3.9) Canada (O,Q) 16 (2.4) 65 (2.8) 57 (3.1) 12 (2.2) Colombia 84 (3.5) 42 (4.3) 15 (3.2) 47 (4.8) Cyprus 71 (3.8) 66 (4.9) 14 (3.8) 48 (5.0) Czech Republic 41 (4.4) 62 (4.0) 38 (4.2) 23 (3.4) England 11 (3.4) 72 (4.6) 56 (4.6) 29 (4.2) France 18 (2.7) 44 (3.9) 45 (4.3) 35 (3.7) Germany 9 (1.7) 64 (3.0) 13 (1.9) 12 (2.0) Greece 27 (3.7) 42 (4.2) 7 (1.8) 27 (4.0) Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9) Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Icaland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	rgentina	57 (4.9)	59 (4.9)	r 7 (2.4)	37 (4.2)	r 7 (2.3)
Canada (O,Q) 16 (2.4) 65 (2.8) 57 (3.1) 12 (2.2) Colombia 84 (3.5) 42 (4.3) 15 (3.2) 47 (4.8) Cyprus 71 (3.8) 66 (4.9) 14 (3.8) 48 (5.0) Czech Republic 41 (4.4) 62 (4.0) 38 (4.2) 23 (3.4) England 11 (3.4) 72 (4.6) 56 (4.6) 29 (4.2) France 18 (2.7) 44 (3.9) 45 (4.3) 35 (3.7) Germany 9 (1.7) 64 (3.0) 13 (1.9) 12 (2.0) Greece 27 (3.7) 42 (4.2) 7 (1.8) 27 (4.0) Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9) Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Iceland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) <	elize	r 73 (5.5)	r 70 (5.9)	r 13 (4.1)	53 (6.6)	r 20 (5.5
Colombia 84 (3.5) 42 (4.3) 15 (3.2) 47 (4.8) Cyprus 71 (3.8) 66 (4.9) 14 (3.8) 48 (5.0) Czech Republic 41 (4.4) 62 (4.0) 38 (4.2) 23 (3.4) England 11 (3.4) 72 (4.6) 56 (4.6) 29 (4.2) France 18 (2.7) 44 (3.9) 45 (4.3) 35 (3.7) Germany 9 (1.7) 64 (3.0) 13 (1.9) 12 (2.0) Greece 27 (3.7) 42 (4.2) 7 (1.8) 27 (4.0) Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9) Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Iceland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r	ulgaria	74 (3.7)	85 (3.1)	22 (3.4)	58 (3.9)	2 (1.0
Cyprus 71 (3.8) 66 (4.9) 14 (3.8) 48 (5.0) Czech Republic 41 (4.4) 62 (4.0) 38 (4.2) 23 (3.4) England 11 (3.4) 72 (4.6) 56 (4.6) 29 (4.2) France 18 (2.7) 44 (3.9) 45 (4.3) 35 (3.7) Germany 9 (1.7) 64 (3.0) 13 (1.9) 12 (2.0) Greece 27 (3.7) 42 (4.2) 7 (1.8) 27 (4.0) Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9) Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Iceland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2	anada (O,Q)	16 (2.4)	65 (2.8)	57 (3.1)	12 (2.2)	3 (1.2
Czech Republic 41 (4.4) 62 (4.0) 38 (4.2) 23 (3.4) England 11 (3.4) 72 (4.6) 56 (4.6) 29 (4.2) France 18 (2.7) 44 (3.9) 45 (4.3) 35 (3.7) Germany 9 (1.7) 64 (3.0) 13 (1.9) 12 (2.0) Greece 27 (3.7) 42 (4.2) 7 (1.8) 27 (4.0) Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9) Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Iceland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77	olombia	84 (3.5)	42 (4.3)	15 (3.2)	47 (4.8)	11 (2.8
England 11 (3.4) 72 (4.6) 56 (4.6) 29 (4.2) France 18 (2.7) 44 (3.9) 45 (4.3) 35 (3.7) Germany 9 (1.7) 64 (3.0) 13 (1.9) 12 (2.0) Greece 27 (3.7) 42 (4.2) 7 (1.8) 27 (4.0) Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9) Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Iceland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	yprus	71 (3.8)	66 (4.9)	14 (3.8)	48 (5.0)	6 (2.3
France 18 (2.7) 44 (3.9) 45 (4.3) 35 (3.7) Germany 9 (1.7) 64 (3.0) 13 (1.9) 12 (2.0) Greece 27 (3.7) 42 (4.2) 7 (1.8) 27 (4.0) Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9) Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Iceland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Morocco 28 (5.2) <td< td=""><td>zech Republic</td><td>41 (4.4)</td><td>62 (4.0)</td><td>38 (4.2)</td><td>23 (3.4)</td><td>13 (3.2</td></td<>	zech Republic	41 (4.4)	62 (4.0)	38 (4.2)	23 (3.4)	13 (3.2
Germany 9 (1.7) 64 (3.0) 13 (1.9) 12 (2.0) Greece 27 (3.7) 42 (4.2) 7 (1.8) 27 (4.0) Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9) Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Iceland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2)	ngland	11 (3.4)	72 (4.6)	56 (4.6)	29 (4.2)	12 (3.2
Greece 27 (3.7) 42 (4.2) 7 (1.8) 27 (4.0) Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9) Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Iceland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r New Zealand	rance	18 (2.7)	44 (3.9)	45 (4.3)	35 (3.7)	7 (1.8
Hong Kong, SAR 37 (4.3) 26 (4.0) 8 (2.5) 12 (2.9) Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Iceland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	ermany	9 (1.7)	64 (3.0)	13 (1.9)	12 (2.0)	3 (1.2
Hungary 73 (3.7) 91 (2.2) 20 (2.9) 51 (4.0) Iceland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	reece	27 (3.7)	42 (4.2)	7 (1.8)	27 (4.0)	3 (1.5
Iceland 24 (0.3) 77 (0.4) 62 (0.4) 60 (0.4) Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5)	long Kong, SAR	37 (4.3)	26 (4.0)	8 (2.5)	12 (2.9)	3 (1.6
Iran, Islamic Rep. of 45 (4.3) 22 (3.2) 17 (2.7) 50 (4.3) Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2)	lungary	73 (3.7)	91 (2.2)	20 (2.9)	51 (4.0)	1 (0.6
Israel 61 (5.0) 76 (4.1) 35 (4.1) 43 (4.9) Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r New Zealands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7)	celand	24 (0.3)	77 (0.4)	62 (0.4)	60 (0.4)	5 (0.2
Italy 50 (3.7) 94 (1.9) 25 (3.5) 37 (3.7) Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6)	an, Islamic Rep. of	45 (4.3)	22 (3.2)	17 (2.7)	50 (4.3)	8 (1.9
Kuwait r 19 (3.8) r 29 (4.1) r 6 (2.3) r 30 (3.8) r Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9)	rael	61 (5.0)	76 (4.1)	35 (4.1)	43 (4.9)	12 (2.9
Latvia 54 (3.5) 93 (2.3) 32 (4.0) 53 (4.2) Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6) <td>aly</td> <td>50 (3.7)</td> <td>94 (1.9)</td> <td>25 (3.5)</td> <td>37 (3.7)</td> <td>2 (1.2</td>	aly	50 (3.7)	94 (1.9)	25 (3.5)	37 (3.7)	2 (1.2
Lithuania 69 (4.1) 77 (3.8) 21 (3.8) 64 (4.0) Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	uwait	r 19 (3.8)	r 29 (4.1)	r 6 (2.3)	r 30 (3.8)	r 9 (2.1
Macedonia, Rep. of 59 (4.2) 40 (4.3) 8 (2.5) 61 (3.8) Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	atvia	54 (3.5)	93 (2.3)	32 (4.0)	53 (4.2)	3 (1.5
Moldova, Rep. of 73 (3.8) 82 (3.2) 19 (3.9) 87 (2.9) Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	ithuania	69 (4.1)	77 (3.8)	21 (3.8)	64 (4.0)	11 (2.6
Morocco 28 (5.2) 17 (4.6) r 20 (4.8) 53 (4.9) r Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	lacedonia, Rep. of	59 (4.2)	40 (4.3)	8 (2.5)	61 (3.8)	27 (4.0
Netherlands 8 (2.5) r 51 (5.0) r 76 (3.9) 12 (2.8) r New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	Ioldova, Rep. of	73 (3.8)	82 (3.2)	19 (3.9)	87 (2.9)	19 (3.8
New Zealand 22 (3.3) 88 (2.9) 63 (4.2) 54 (4.3) Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	lorocco	28 (5.2)	17 (4.6)	r 20 (4.8)	53 (4.9)	r 6 (2.6
Norway 29 (3.9) 78 (3.5) 52 (4.0) 33 (4.0) Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	letherlands	8 (2.5)	r 51 (5.0)	r 76 (3.9)	12 (2.8)	r 0 (0.0
Romania 78 (3.5) 74 (3.8) 7 (2.1) 75 (3.5) Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	lew Zealand	22 (3.3)	88 (2.9)	63 (4.2)	54 (4.3)	21 (3.6
Russian Federation 44 (2.9) 99 (0.7) 45 (3.5) 66 (3.2) Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	lorway	29 (3.9)	78 (3.5)	52 (4.0)	33 (4.0)	3 (1.3
Scotland 10 (3.1) 77 (4.1) 72 (4.5) 21 (4.7) Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	omania	78 (3.5)	74 (3.8)	7 (2.1)	75 (3.5)	5 (1.9
Singapore 49 (4.1) 58 (3.9) 20 (3.1) 26 (3.6) Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	ussian Federation	44 (2.9)	99 (0.7)	45 (3.5)	66 (3.2)	5 (1.6
Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	cotland		77 (4.1)	72 (4.5)	21 (4.7)	1 (0.0
Slovak Republic 65 (3.6) 53 (3.6) 14 (3.2) 63 (4.1) Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	ingapore					5 (1.7
Slovenia 86 (3.1) 69 (3.8) 11 (2.6) 29 (3.8) Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	5 .					1 (0.5
Sweden 28 (3.1) 80 (2.9) 90 (1.8) 4 (1.6)	·					14 (3.0
	weden					2 (0.7
	urkey		60 (4.3)			23 (3.3
United States 22 (3.9) 88 (3.3) 74 (4.8) 22 (4.0)	nited States	22 (3.9)	88 (3.3)		22 (4.0)	6 (2.2
International Avg. 45 (0.6) 65 (0.6) 31 (0.6) 41 (0.7)	aternational Ava	45 (0.6)	65 (0.6)	31 (0.6)	<i>4</i> 1 (0.7)	8 (0.4

Background data provided by teachers.

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

Exhibit 6.13: Use of Nonfiction for Reading Instruction



	Percentage of Students Whose Teachers Asked Them to Read Nonfiction*								
Countries	At Least	t Weekly	Less tha	n Weekly					
	Percent of Students	Average Achievement	Percent of Students	Average Achievement					
Argentina	88 (3.3)	421 (7.4)	12 (3.3)	435 (14.7)					
Belize r	69 (6.4)	313 (6.7)	31 (6.4)	348 (12.8)					
Bulgaria	37 (3.9)	554 (6.6)	63 (3.9)	549 (5.6)					
Canada (O,Q)	60 (3.0)	547 (2.9)	40 (3.0)	541 (3.3)					
Colombia	75 (3.6)	422 (4.8)	25 (3.6)	424 (13.4)					
Cyprus	65 (4.8)	497 (4.0)	35 (4.8)	490 (4.6)					
Czech Republic	31 (4.0)	545 (4.4)	69 (4.0)	533 (2.7)					
England	56 (5.1)	552 (5.8)	44 (5.1)	557 (4.9)					
France	34 (4.1)	525 (3.9)	66 (4.1)	525 (3.2)					
Germany	74 (2.7)	542 (2.5)	26 (2.7)	534 (3.0)					
Greece	46 (5.0)	528 (5.6)	54 (5.0)	524 (5.3)					
Hong Kong, SAR	28 (3.8)	531 (5.9)	72 (3.8)	527 (3.9)					
Hungary	59 (4.1)	547 (2.8)	41 (4.1)	540 (3.9)					
Iceland	30 (0.4)	509 (2.1)	70 (0.4)	514 (1.5)					
Iran, Islamic Rep. of	49 (3.7)	412 (7.5)	51 (3.7)	415 (4.7)					
Israel	49 (3.9)	520 (5.7)	51 (3.9)	490 (6.3)					
Italy	77 (3.1)	542 (2.6)	23 (3.1)	538 (5.9)					
Kuwait r	46 (3.8)	402 (6.9)	54 (3.8)	396 (6.0)					
Latvia	36 (4.8)	544 (3.8)	64 (4.8)	546 (3.5)					
Lithuania	52 (4.3)	546 (3.9)	48 (4.3)	541 (3.8)					
Macedonia, Rep. of	64 (4.6)	444 (7.6)	36 (4.6)	445 (8.7)					
Moldova, Rep. of	64 (4.0)	493 (5.5)	36 (4.0)	493 (6.1)					
Morocco	40 (5.3)	326 (12.3)	60 (5.3)	355 (12.6)					
Netherlands	53 (4.6)	557 (3.2)	47 (4.6)	550 (4.5)					
New Zealand	62 (4.2)	531 (4.9)	38 (4.2)	524 (7.1)					
Norway	60 (4.5)	503 (3.9)	40 (4.5)	494 (4.3)					
Romania	58 (4.3)	513 (5.9)	42 (4.3)	511 (7.2)					
Russian Federation	51 (3.2)	538 (4.0)	49 (3.2)	518 (7.3)					
Scotland	69 (4.2)	527 (4.5)	31 (4.2)	533 (6.8)					
Singapore	59 (4.0)	524 (7.8)	41 (4.0)	535 (7.7)					
Slovak Republic	32 (3.7)	523 (4.4)	68 (3.7)	515 (4.2)					
Slovenia	58 (4.1)	499 (2.8)	42 (4.1)	505 (2.8)					
Sweden	68 (3.2)	560 (3.2)	32 (3.2)	564 (2.3)					
Turkey	58 (4.9)	455 (5.3)	42 (4.9)	444 (6.3)					
United States	88 (3.1)	539 (3.7)	12 (3.1)	566 (10.8)					

^{*}Based on teachers' responses to having students read the following when having reading instruction and/or doing reading activities: descriptions and explanations about things, people, or events; instructions or manuals about how things work; and charts, diagrams, graphs. Response options Every day or almost every day and Once or twice a week were combined as At least

weekly. Response options Once or twice a month and Never or almost never were combined as Less than weekly.

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

A dash (–) indicates data are not available. A tilde (\sim) indicates insufficient data to report achievement.

Exhibit 6.14: Use of Films and Other Media for Reading Instruction



	Percentage of Stud	ents Whose Teachers Reporte	ed At Least Monthly
Countries	Having Students Watch Film Versions of Children's Books or Stories	Having Students Watch Movies, Videos, or Television to Obtain Information	Having Students Compare Materia Presented in Different Media
Argentina	53 (4.9)	53 (5.3)	67 (4.7)
Belize	20 (3.9)	r 30 (5.1)	r 39 (4.6)
Bulgaria	22 (3.3)	93 (1.8)	64 (3.8)
Canada (O,Q)	36 (3.9)	53 (3.7)	52 (3.4)
Colombia	46 (4.9)	77 (3.5)	69 (4.1)
Cyprus	25 (4.2)	49 (5.1)	61 (4.2)
Czech Republic	52 (4.4)	67 (4.0)	53 (4.6)
England	44 (4.8)	74 (4.0)	65 (4.7)
France	20 (2.7)	49 (3.5)	38 (3.6)
Germany	22 (2.5)	36 (3.2)	29 (2.6)
Greece	25 (4.5)	59 (4.7)	50 (4.4)
Hong Kong, SAR	80 (3.5)	67 (4.4)	54 (4.5)
Hungary	62 (3.7)	66 (3.4)	55 (3.7)
Iceland	29 (0.4)	48 (0.4)	15 (0.3)
Iran, Islamic Rep. of	78 (3.5)	78 (3.8)	65 (3.8)
Israel	54 (4.6)	57 (4.3)	56 (4.7)
Italy	32 (3.6)	51 (3.3)	44 (3.9)
Kuwait	58 (4.6)	57 (3.6)	75 (3.1)
Latvia	29 (4.4)	44 (4.7)	45 (5.1)
Lithuania	48 (4.1)	62 (4.1)	83 (3.2)
Macedonia, Rep. of	91 (2.4)	96 (1.7)	94 (2.1)
Moldova, Rep. of	61 (4.2)	77 (3.6)	89 (2.4)
Morocco	20 (3.7)	47 (5.4)	33 (4.8)
Netherlands	18 (3.3)	69 (4.1)	25 (4.1)
New Zealand	38 (4.5)	62 (4.4)	61 (3.9)
Norway	47 (4.2)	51 (4.6)	33 (3.9)
Romania	94 (1.9)	92 (2.5)	88 (2.8)
Russian Federation	33 (3.5)	37 (3.4)	51 (3.3)
Scotland	19 (4.5)	67 (4.5)	49 (4.9)
Singapore	31 (3.9)	51 (3.7)	41 (3.7)
Slovak Republic	40 (3.6)	44 (4.1)	66 (3.8)
Slovenia	58 (4.3)	57 (4.0)	70 (4.0)
Sweden	37 (3.6)	78 (2.8)	45 (3.4)
Turkey	35 (4.4)	51 (4.1)	65 (4.1)
United States	58 (4.4)	63 (5.2)	66 (5.2)
International Ave	42 (0.7)	60 (0.7)	FC (0.7)
International Avg.	43 (0.7)	60 (0.7)	56 (0.7)

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

How Often Do Students Read Aloud and Independently in Class?

This section primarily describes teachers' and students' reports about class-room activities related to actually reading, including teachers reading aloud to the class, students reading aloud to the class, and students doing independent reading.

Regarding instruction in two specific reading skills and strategies — decoding and vocabulary — teachers reported little emphasis on decoding but considerable attention to vocabulary (see Exhibit 6.15). Presumably because these are older students who have by and large mastered decoding skills, on average, internationally, teachers reported daily attention to decoding for 23 percent of students and weekly attention for 30 percent of students. The largest percentages of students receiving daily attention were in Hong Kong (53%) and Italy (46%). For vocabulary, on average, internationally, according to their teachers 72 percent of students were helped daily and 24 percent weekly. In Bulgaria, Greece, Lithuania, and Moldova, teachers reported that almost all students (97 to 99 percent) received help daily with vocabulary.

Exhibits 6.16, 6.17, and 6.18 provide students' reports about how often teachers read aloud to the class, students read aloud in class, and students engaged in independent reading, respectively. On average, internationally, most students (63%) reported that their teachers read aloud on a daily basis, and about one in four (24%) on a weekly basis (Exhibit 6.16). Interestingly, the few students (8%) who reported being read to only on a monthly basis had the highest achievement.

As shown in Exhibit 6.17, students reported that they themselves spend rather less time reading aloud in class than do their teachers – 23 percent reported reading aloud daily and 36 percent weekly, on average, across countries. More than 40 percent of students reported reading aloud daily in Argentina, Colombia, Kuwait, Macedonia, Moldova, Morocco, and Romania. Similar to the results for teachers reading aloud, students with the highest achievement reported reading aloud on a monthly basis.

According to students' reports (Exhibit 6.18), independent silent reading was a more frequent activity in fourth-grade classrooms than reading

aloud (either by teachers or students). On average, internationally, two-thirds of students (66%) reported reading silently on their own daily, and a further 27 percent at least weekly. For independent reading compared to reading aloud, however, there was a reversal of the pattern of achievement in relation to frequency. The students with the highest reading achievement also reported the most frequent independent reading (daily). Presumably because they were better readers, teachers were able to allow them more time on their own.

To provide teachers' perspectives on the frequency of oral and silent reading, Exhibit 6.19 shows teachers' reports on how often they read aloud to the class themselves, had students read aloud to the whole class, had students read aloud in small groups or pairs, and had students read silently on their own. On average, internationally, teachers reported that 61 percent of students were in classes where they (the teacher) read aloud daily and 31 percent weekly, which agreed well with the students' reports presented in Exhibit 6.16.

Teachers reported more reading aloud by students in class than did the students themselves. Teachers reported having 56 percent of students, on average, internationally, read aloud to the whole class on a daily basis (whereas this was just 23 percent according to students). Additionally, teachers reported that 13 percent were reading aloud in small groups or pairs on a daily basis and 35 percent weekly.

Agreeing with students that independent silent reading was a frequent classroom activity, teachers reported that 59 percent of students were in classes where silent reading was a daily occurrence.

Exhibit 6.15: Emphasis on Decoding and Vocabulary



Countries		each Strategies ling Sounds and		Help Understand New Vocabulary in Texts				
	Daily	Weekly	Less than Weekly	Daily	Weekly	Less than Weekly		
Argentina	r 19 (3.9	9) 26 (4.7)	55 (4.9)	71 (5.0)	24 (4.7)	6 (2.7)		
Belize	32 (6.1) 48 (5.6)	20 (4.7)	57 (6.2)	42 (6.2)	1 (0.7)		
Bulgaria	41 (3.6	6) 44 (4.2)	15 (3.0)	97 (1.4)	3 (1.4)	0 (0.0)		
Canada (O,Q)	17 (2.7	7) 42 (3.5)	41 (3.1)	57 (3.8)	39 (3.8)	4 (1.3)		
Colombia	28 (3.6	5) 26 (3.4)	46 (4.5)	68 (4.0)	26 (3.8)	6 (2.0)		
Cyprus	14 (3.5	30 (5.0)	56 (5.1)	76 (4.6)	18 (4.0)	6 (2.3)		
Czech Republic	3 (1.4	1) 12 (3.5)	85 (3.6)	80 (3.1)	18 (3.1)	2 (1.1)		
England	24 (3.6	5) 51 (4.5)	25 (4.0)	54 (4.7)	42 (4.7)	4 (2.0)		
France	5 (1.7	") 15 (2.5)	79 (3.3)	65 (4.1)	25 (3.6)	9 (1.9)		
Germany	13 (2.2	2) 21 (3.0)	65 (3.1)	57 (3.2)	29 (2.8)	14 (1.9)		
Greece	20 (3.5	5) 16 (3.5)	65 (4.8)	99 (0.9)	1 (0.8)	0 (0.0)		
Hong Kong, SAR	53 (4.3	31 (3.6)	17 (3.4)	55 (4.6)	33 (4.2)	12 (3.1)		
Hungary	28 (3.7	24 (3.5)	48 (4.1)	88 (2.9)	10 (2.6)	1 (0.0)		
Iceland	6 (0.2	2) 15 (0.3)	79 (0.3)	53 (0.4)	31 (0.4)	15 (0.3)		
Iran, Islamic Rep. of	28 (3.6	30 (3.7)	42 (3.8)	72 (3.9)	26 (3.7)	2 (1.4)		
Israel	20 (3.5	36 (4.8)	44 (5.0)	72 (3.9)	22 (3.4)	6 (2.3)		
Italy	46 (4.1) 19 (3.1)	36 (3.4)	75 (3.4)	22 (3.3)	3 (1.1)		
Kuwait	r 28 (3.3	3) 21 (3.1)	51 (4.1)	86 (2.4)	11 (1.9)	3 (1.6)		
Latvia	14 (3.2	27 (3.9)	58 (4.2)	79 (4.0)	18 (3.8)	3 (1.3)		
Lithuania				98 (1.2)	2 (1.2)	0 (0.0)		
Macedonia, Rep. of	26 (4.3	35 (4.4)	39 (3.8)	67 (3.5)	13 (2.7)	20 (3.1)		
Moldova, Rep. of	18 (3.8	32 (4.1)	51 (5.0)	97 (1.4)	3 (1.4)	0 (0.0)		
Morocco	r 38 (5.7	7) 18 (4.1)	44 (5.5)	87 (3.3)	11 (3.4)	1 (1.0)		
Netherlands	3 (1.0) 29 (4.3)	67 (4.4)	54 (4.0)	37 (4.1)	9 (2.7)		
New Zealand	36 (4.0) 44 (4.0)	20 (3.5)	57 (4.8)	38 (4.5)	5 (1.9)		
Norway	1 (0.6	5) 24 (3.8)	75 (3.9)	46 (4.7)	40 (4.4)	14 (2.9)		
Romania	29 (3.8	3) 29 (4.0)	42 (4.4)	91 (2.8)	8 (2.6)	1 (0.9)		
Russian Federation	39 (3.8	32 (3.4)	29 (3.0)	95 (2.3)	5 (2.1)	1 (0.0)		
Scotland	28 (4.5	5) 51 (5.0)	21 (3.9)	53 (5.4)	47 (5.4)	0 (0.0)		
Singapore	15 (2.7	33 (4.1)	52 (4.5)	52 (4.3)	41 (4.4)	7 (2.0)		
Slovak Republic	26 (3.5	30 (3.8)	44 (4.3)	91 (2.3)	9 (2.3)	0 (0.0)		
Slovenia	10 (2.3	3) 25 (3.6)	64 (4.0)	79 (3.7)	19 (3.5)	2 (1.3)		
Sweden	2 (0.7	7) 13 (2.6)	86 (2.6)	51 (3.8)	37 (3.4)	12 (2.1)		
Turkey	34 (3.9	9) 44 (4.2)	23 (3.5)	65 (4.7)	33 (4.7)	2 (1.2)		
United States	29 (4.3	3) 45 (3.8)	26 (3.3)	61 (3.8)	37 (4.1)	1 (1.4)		

Background data provided by teachers.

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

Exhibit 6.16: Students' Reports About Teachers Reading Aloud in Class

ISC 4th Grade PIRLS 2001

6. 44.		or Almost y Day	Once or Tv	vice a Week	Once or Tw	ice a Month	Never or Al	most Never
Countries	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievemer
Argentina	78 (1.4)	423 (5.7)	16 (1.0)	438 (8.0)	3 (0.4)	421 (14.8)	3 (0.6)	434 (20.7)
Belize	73 (2.3)	331 (5.5)	18 (1.8)	332 (9.7)	5 (0.7)	312 (21.1)	4 (0.5)	294 (13.4
Bulgaria	79 (1.4)	552 (3.7)	17 (1.1)	557 (5.1)	2 (0.3)	~ ~	2 (0.5)	~ ~
Canada (O,Q)	58 (1.8)	542 (2.9)	27 (1.4)	548 (3.0)	11 (0.7)	550 (4.0)	5 (0.5)	539 (6.1)
Colombia	89 (1.0)	422 (4.4)	8 (0.8)	450 (8.0)	1 (0.2)	~ ~	1 (0.3)	~ ~
Cyprus	85 (1.2)	495 (3.1)	11 (1.0)	506 (6.9)	2 (0.3)	~ ~	2 (0.3)	~ ~
Czech Republic	35 (1.8)	530 (3.2)	39 (1.8)	540 (3.4)	18 (1.2)	544 (4.0)	8 (1.2)	538 (5.1)
England	50 (2.1)	548 (4.8)	36 (2.0)	554 (4.6)	11 (1.3)	576 (6.4)	4 (0.9)	551 (9.6)
France	51 (2.0)	518 (3.0)	25 (1.2)	534 (3.0)	12 (1.0)	541 (4.3)	11 (1.0)	531 (4.6)
Germany	20 (1.3)	520 (3.9)	36 (1.0)	541 (2.2)	28 (1.0)	551 (2.3)	16 (0.8)	543 (3.2)
Greece	86 (1.5)	524 (3.6)	10 (1.3)	528 (10.8)	2 (0.4)	~ ~	2 (0.5)	~ ~
Hong Kong, SAR	37 (1.6)	532 (3.8)	28 (1.3)	533 (3.8)	14 (0.7)	531 (4.0)	22 (1.1)	516 (3.8)
Hungary	45 (2.5)	537 (3.2)	36 (2.0)	548 (2.3)	15 (1.2)	555 (4.5)	4 (0.6)	539 (8.6)
Iceland	72 (0.8)	514 (1.5)	18 (0.7)	519 (2.7)	5 (0.3)	505 (6.2)	5 (0.4)	494 (5.0
Iran, Islamic Rep. of	80 (1.1)	417 (4.4)	13 (0.8)	417 (6.3)	2 (0.3)	~ ~	5 (0.5)	389 (7.0
Israel	75 (0.9)	508 (2.8)	17 (0.7)	523 (5.2)	5 (0.4)	535 (8.9)	3 (0.4)	487 (12.
Italy	61 (1.4)	535 (2.7)	26 (1.2)	553 (3.4)	7 (0.6)	559 (5.4)	5 (0.6)	531 (6.1
Kuwait r	85 (0.9)	403 (4.6)	8 (0.5)	383 (5.5)	2 (0.2)	~ ~	5 (0.5)	395 (6.1
Latvia	39 (1.7)	535 (3.3)	40 (1.3)	550 (2.7)	16 (1.0)	560 (3.7)	6 (0.6)	537 (5.6
Lithuania	55 (2.1)	536 (2.8)	33 (1.5)	553 (3.5)	9 (0.9)	560 (5.9)	3 (0.5)	523 (9.4
Macedonia, Rep. of	87 (0.9)	447 (4.5)	10 (0.9)	427 (9.1)	1 (0.2)	~ ~	2 (0.4)	~ ~
Moldova, Rep. of	76 (3.1)	490 (4.1)	19 (3.0)	497 (9.1)	3 (0.8)	516 (28.4)	2 (0.4)	~ ~
Morocco	86 (1.5)	354 (10.1)	10 (1.1)	335 (16.1)	1 (0.2)	~ ~	2 (0.6)	~ ~
Netherlands	51 (2.7)	550 (3.2)	30 (1.8)	560 (2.7)	10 (1.0)	560 (5.5)	9 (1.3)	554 (4.7
New Zealand	58 (2.9)	528 (5.1)	31 (2.2)	536 (4.8)	8 (1.0)	546 (8.4)	3 (0.5)	497 (11.
Norway	63 (2.5)	497 (3.5)	25 (1.6)	505 (4.4)	7 (1.0)	507 (7.0)	4 (0.7)	489 (9.5
Romania	80 (1.6)	512 (4.9)	16 (1.4)	521 (6.3)	3 (0.4)	502 (16.6)	1 (0.4)	~ ~
Russian Federation	68 (1.9)	525 (5.1)	24 (1.3)	534 (5.0)	6 (0.7)	535 (6.3)	2 (0.4)	~ ~
Scotland	52 (3.0)	521 (4.1)	36 (2.5)	538 (5.0)	8 (0.9)	544 (7.9)	3 (0.4)	522 (14.
Singapore	66 (1.2)	527 (4.9)	20 (0.6)	534 (6.0)	7 (0.8)	542 (13.9)	7 (0.4)	510 (8.6
Slovak Republic	49 (2.4)	510 (3.8)	33 (2.1)	526 (3.7)	13 (1.1)	529 (5.1)	5 (0.6)	520 (7.3
Slovenia	48 (2.0)	495 (2.7)	37 (1.6)	508 (2.6)	12 (1.1)	514 (5.1)	3 (0.5)	508 (8.2
Sweden	41 (2.3)	560 (3.0)	42 (1.8)	562 (2.7)	13 (1.2)	561 (3.6)	4 (0.8)	552 (7.5
Turkey	65 (2.4)	447 (4.0)	26 (1.8)	456 (5.3)	5 (0.7)	452 (10.8)	3 (0.8)	447 (8.2
United States	57 (3.0)	540 (4.5)	25 (1.9)	544 (5.5)	11 (1.2)	556 (6.2)	6 (0.6)	536 (8.1
International Avg.	63 (0.3)	498 (0.7)	24 (0.3)	505 (1.1)	8 (0.1)	525 (2.1)	5 (0.1)	499 (2.0

Background data provided by students.

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

Exhibit 6.17: Students' Reports About Students Reading Aloud in Class*



	Every Day or Almost Every Day		Once or Tv	vice a Week	Once or Tw	ice a Month	Never or Almost Never	
Countries	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievemer
Argentina	45 (1.7)	417 (6.6)	31 (1.1)	441 (5.7)	11 (0.9)	444 (11.0)	12 (1.3)	432 (12.4)
Belize	29 (1.6)	327 (6.3)	37 (1.4)	328 (6.6)	16 (0.9)	337 (8.8)	17 (1.3)	328 (8.7)
Bulgaria	34 (1.7)	546 (5.0)	42 (1.3)	559 (3.7)	17 (0.9)	554 (5.6)	7 (0.8)	547 (9.4)
Canada (O,Q)	9 (0.8)	517 (4.7)	30 (1.2)	546 (2.8)	21 (0.9)	549 (3.3)	40 (1.5)	548 (3.2)
Colombia	47 (2.5)	410 (5.0)	34 (1.8)	433 (6.0)	10 (0.7)	443 (7.6)	8 (0.9)	453 (7.2)
Cyprus	33 (1.4)	480 (3.9)	48 (1.3)	503 (3.4)	11 (0.8)	505 (5.2)	8 (0.6)	503 (6.8)
Czech Republic	17 (1.3)	526 (4.1)	39 (1.3)	539 (3.0)	33 (1.5)	540 (3.1)	10 (0.8)	544 (4.8)
England	4 (0.5)	485 (10.7)	29 (1.6)	554 (3.7)	26 (1.2)	561 (4.7)	41 (2.0)	554 (4.3)
France	13 (0.9)	494 (5.4)	35 (1.3)	521 (3.0)	25 (1.0)	538 (3.3)	27 (1.6)	537 (3.1)
Germany	7 (0.4)	511 (4.7)	25 (0.9)	534 (2.8)	23 (0.7)	546 (2.5)	45 (1.1)	545 (2.5)
Greece	30 (1.5)	504 (4.2)	42 (1.8)	529 (5.1)	16 (1.1)	550 (5.7)	11 (1.1)	538 (4.6)
Hong Kong, SAR	3 (0.3)	503 (9.2)	16 (0.8)	528 (5.1)	20 (1.0)	535 (3.7)	61 (1.4)	529 (3.0)
Hungary	17 (1.3)	531 (4.0)	38 (1.3)	545 (2.8)	19 (1.0)	547 (3.9)	27 (1.3)	549 (3.0)
Iceland	5 (0.3)	477 (5.5)	28 (0.7)	517 (2.3)	28 (0.7)	522 (2.7)	38 (0.8)	511 (2.2)
Iran, Islamic Rep. of	34 (1.4)	408 (4.0)	46 (1.6)	421 (5.7)	12 (1.0)	417 (7.5)	9 (0.7)	406 (7.5)
Israel	26 (1.2)	485 (4.3)	35 (1.0)	515 (3.7)	17 (0.8)	524 (5.2)	22 (1.0)	533 (5.1)
Italy	26 (1.2)	522 (3.5)	42 (1.1)	543 (2.8)	18 (0.9)	553 (3.3)	14 (0.9)	556 (4.4)
Kuwait r	41 (1.7)	405 (4.4)	40 (1.3)	402 (5.1)	12 (0.8)	396 (6.9)	8 (0.5)	386 (7.2)
Latvia	21 (1.2)	530 (4.0)	41 (1.4)	547 (3.0)	22 (1.2)	553 (2.9)	16 (1.3)	552 (3.9)
Lithuania	27 (1.4)	528 (4.2)	47 (1.2)	550 (2.9)	17 (1.0)	554 (4.4)	8 (0.7)	545 (6.0)
Macedonia, Rep. of	49 (1.8)	426 (5.4)	39 (1.5)	458 (5.2)	8 (0.7)	497 (6.4)	5 (0.5)	461 (12.9
Moldova, Rep. of	42 (2.4)	488 (5.0)	42 (1.9)	499 (5.3)	11 (1.3)	488 (6.3)	5 (0.7)	494 (10.8
Morocco	51 (2.8)	346 (9.5)	39 (2.3)	356 (10.2)	7 (1.2)	348 (17.9)	3 (0.5)	352 (18.1
Netherlands	3 (0.4)	517 (8.7)	16 (0.9)	549 (4.1)	20 (1.0)	558 (3.1)	61 (1.4)	557 (2.6)
New Zealand	4 (0.5)	464 (9.2)	26 (1.6)	520 (5.0)	22 (1.2)	540 (5.8)	47 (1.7)	539 (4.1)
Norway	7 (0.9)	461 (5.7)	32 (1.9)	501 (4.5)	24 (1.2)	504 (4.5)	36 (2.6)	503 (4.0)
Romania	45 (2.1)	501 (5.5)	39 (1.6)	521 (5.2)	11 (1.0)	540 (7.6)	4 (0.6)	493 (12.0
Russian Federation	31 (1.4)	518 (6.3)	43 (1.2)	531 (4.5)	19 (1.1)	541 (4.2)	7 (0.8)	534 (6.7)
Scotland	8 (1.2)	506 (8.8)	44 (2.3)	530 (4.3)	28 (1.8)	540 (4.6)	20 (1.6)	519 (6.4)
Singapore	8 (0.5)	485 (9.6)	26 (0.8)	520 (6.4)	21 (0.8)	538 (4.7)	44 (1.3)	538 (5.3)
Slovak Republic	33 (2.0)	499 (4.5)	42 (1.5)	525 (3.1)	18 (1.3)	536 (3.5)	7 (0.6)	535 (5.7)
Slovenia	17 (1.3)	474 (4.5)	41 (1.5)	502 (2.6)	24 (1.2)	513 (3.2)	18 (1.3)	517 (3.8)
Sweden	2 (0.3)	~ ~	25 (1.5)	560 (3.4)	25 (1.1)	564 (3.0)	48 (2.1)	562 (2.4)
Turkey	29 (1.9)	440 (4.8)	42 (1.6)	454 (4.2)	18 (1.7)	459 (7.8)	11 (1.0)	449 (6.6)
United States	9 (0.7)	518 (8.4)	30 (1.2)	545 (4.8)	20 (0.8)	554 (5.4)	40 (1.5)	541 (4.6)

^{*}Based on students' responses to how often they do the following: read aloud to the whole class; and read aloud to a small group of students in class.

Average is computed based on a 4-point scale: Once or twice a month = 2,

Once or twice a week = 3, and Every day or almost every day = 4. Never or almost never indicates an average of 1 to less than 1.75, Once or twice a

month indicates an average of 1.75 through 2.5. Once or twice a week indicates an average of greater than 2.5 through 3.25. Every day or almost every day indicates an average of greater than 3.25 through 4.

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

A dash (–) indicates data are not available. A tilde (\sim) indicates insufficient data to report achievement.

Exhibit 6.18: Students' Reports About Independent Reading*



		or Almost y Day	Once or Tv	vice a Week	Once or Tw	ice a Month	Never or A	lmost Neve
Countries	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achieveme
Argentina	68 (1.2)	434 (5.6)	26 (0.9)	422 (6.7)	4 (0.4)	420 (12.1)	3 (0.4)	390 (17.2
Belize	53 (1.9)	349 (6.2)	32 (1.7)	320 (7.0)	9 (0.5)	287 (7.1)	6 (0.6)	266 (11.
Bulgaria	69 (1.5)	560 (3.8)	26 (1.3)	546 (4.9)	3 (0.4)	498 (12.7)	2 (0.4)	~ ~
Canada (O,Q)	82 (0.8)	549 (2.4)	14 (0.7)	530 (4.3)	2 (0.2)	~ ~	1 (0.1)	~ ~
Colombia	70 (1.7)	426 (5.3)	24 (1.6)	422 (5.4)	4 (0.5)	426 (9.7)	2 (0.3)	~ ~
Cyprus	66 (1.2)	504 (3.2)	28 (1.1)	487 (4.1)	4 (0.4)	456 (9.7)	2 (0.2)	~ ~
Czech Republic	51 (1.4)	539 (2.6)	36 (1.1)	535 (3.0)	8 (0.7)	541 (5.5)	5 (0.5)	532 (7.7
England	83 (1.1)	558 (3.4)	14 (0.9)	535 (5.4)	1 (0.2)	~ ~	1 (0.2)	~ ~
France	68 (1.1)	528 (2.7)	25 (1.0)	522 (3.1)	4 (0.3)	522 (7.7)	3 (0.3)	506 (10
Germany	62 (0.7)	537 (1.9)	28 (0.6)	545 (2.8)	6 (0.3)	546 (4.4)	4 (0.3)	536 (6.3
Greece	57 (1.7)	526 (4.2)	33 (1.3)	523 (4.2)	6 (0.6)	526 (8.1)	4 (0.6)	530 (7.4
Hong Kong, SAR	45 (1.0)	538 (3.2)	42 (0.9)	527 (3.0)	9 (0.5)	507 (4.9)	4 (0.3)	493 (6.3
Hungary	53 (1.5)	547 (2.2)	38 (1.4)	542 (2.9)	6 (0.5)	542 (6.7)	3 (0.4)	526 (7.7
Iceland	74 (0.7)	517 (1.6)	20 (0.7)	508 (3.0)	4 (0.3)	502 (8.0)	3 (0.3)	482 (9.6
Iran, Islamic Rep. of	54 (1.0)	428 (4.2)	35 (1.1)	406 (5.3)	7 (0.6)	383 (6.8)	3 (0.3)	370 (9.2
Israel	70 (1.1)	525 (2.6)	24 (0.9)	493 (5.1)	4 (0.3)	468 (9.8)	3 (0.2)	442 (12
Italy	57 (1.0)	546 (2.6)	31 (0.9)	537 (3.1)	7 (0.6)	534 (5.9)	5 (0.4)	526 (6.7
Kuwait r	46 (1.4)	412 (3.6)	38 (1.1)	396 (5.2)	9 (0.6)	388 (7.9)	7 (0.5)	378 (9.9
Latvia	68 (1.0)	547 (2.5)	26 (0.9)	544 (2.9)	3 (0.6)	535 (10.2)	2 (0.3)	~ ~
Lithuania	73 (1.0)	544 (2.8)	24 (1.0)	549 (3.6)	3 (0.3)	528 (9.9)	1 (0.2)	~ ~
Macedonia, Rep. of	73 (1.4)	453 (4.5)	23 (1.2)	431 (7.1)	3 (0.6)	409 (16.3)	2 (0.3)	~ ~
Moldova, Rep. of	78 (1.7)	497 (4.1)	19 (1.6)	484 (5.8)	2 (0.3)	~ ~	1 (0.2)	~ ~
Morocco	34 (1.9)	357 (8.7)	47 (2.1)	342 (8.3)	13 (2.2)	351 (19.2)	7 (0.9)	346 (12
Netherlands	68 (1.7)	556 (2.7)	26 (1.3)	555 (2.8)	3 (0.3)	540 (6.4)	3 (0.5)	537 (9.1
New Zealand	86 (0.8)	538 (3.5)	12 (0.6)	497 (7.0)	1 (0.3)	~ ~	1 (0.3)	~ ~
Norway	57 (1.6)	499 (3.3)	33 (1.4)	503 (3.5)	6 (0.5)	499 (8.2)	3 (0.4)	482 (8.6
Romania	63 (1.4)	520 (4.6)	30 (1.3)	511 (6.8)	4 (0.5)	488 (12.3)	3 (0.4)	457 (15
Russian Federation	69 (1.2)	531 (4.1)	25 (1.1)	525 (5.8)	3 (0.3)	520 (9.5)	2 (0.3)	~ ~
Scotland	71 (2.0)	533 (3.8)	23 (1.8)	527 (5.3)	3 (0.4)	494 (13.2)	2 (0.4)	~ ~
Singapore	78 (0.9)	543 (4.7)	18 (0.6)	493 (6.2)	3 (0.3)	441 (11.6)	2 (0.2)	~ ~
Slovak Republic	63 (1.5)	521 (3.1)	32 (1.2)	516 (3.7)	4 (0.4)	514 (7.2)	2 (0.3)	~ ~
Slovenia	76 (1.1)	507 (2.2)	21 (1.0)	491 (3.6)	2 (0.3)	~ ~	1 (0.2)	~ ~
Sweden	74 (1.1)	562 (2.4)	23 (0.9)	559 (3.0)	2 (0.3)	~ ~	1 (0.2)	~ ~
Turkey	71 (1.5)	459 (3.7)	24 (1.1)	437 (5.4)	3 (0.5)	396 (8.9)	2 (0.3)	~ ~
United States	84 (0.9)	549 (3.6)	14 (0.8)	518 (6.1)	2 (0.3)	~ ~	1 (0.1)	~ ~
International Avg.	66 (0.2)	507 (0.6)	27 (0.2)	494 (0.8)	4 (0.1)	474 (1.8)	3 (0.1)	459 (2.3

^{*}Based on students' responses to how often they did the following: read silently on own; and read books of own choosing. Average is computed based on 4-point scale: Never or almost never = 1, Once or twice a month = 2, Once or twice a week = 3, and Every day or almost every day = 4. Never or almost never indicates an average of 1 to less than 1.75. Once or twice a month

indicates an average of 1.75 through 2.5. Once or twice a week indicates an average response of greater than 2.5 through 3.25. Every day or almost every day indicates an average of greater than 3.25 through 4.

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

A dash (–) indicates data are not available. A tilde (\sim) indicates insufficient data to report achievement.

Exhibit 6.19: Teachers' Reports About Reading Aloud or Silently in Class



	Percentage of Students Whose Teachers Reported Various Reading Activities									
Countries	Teacher Read	s Aloud to V	Vhole Class	Students Rea	d Aloud to V	Vhole Class				
	Daily	Weekly	Less than Weekly	Daily	Weekly	Less than Weekly				
Argentina	72 (4.6)	23 (4.6)	6 (2.4)	63 (4.6)	27 (4.4)	10 (3.3)				
Belize	68 (5.3)	30 (5.2)	2 (0.9)	65 (4.5)	31 (4.1)	4 (2.3)				
Bulgaria	84 (2.9)	14 (2.7)	2 (1.2)	88 (2.8)	12 (2.8)	0 (0.0)				
Canada (O,Q)	66 (3.3)	26 (3.2)	8 (1.6)	39 (2.8)	40 (3.1)	21 (2.7)				
Colombia	54 (4.6)	39 (4.4)	7 (2.3)	41 (5.0)	39 (4.5)	19 (3.8)				
Cyprus	63 (5.1)	33 (4.6)	4 (2.2)	61 (5.0)	37 (5.1)	2 (0.8)				
Czech Republic	34 (3.9)	40 (4.2)	26 (3.9)	77 (3.5)	21 (3.6)	2 (1.4)				
England	72 (4.2)	27 (4.1)	2 (1.1)	40 (4.9)	42 (4.7)	18 (3.4)				
France	49 (3.8)	34 (4.3)	17 (3.0)	70 (3.4)	27 (3.4)	4 (1.3)				
Germany	16 (2.6)	42 (3.0)	42 (3.0)	51 (2.9)	34 (2.9)	15 (2.4)				
Greece	67 (4.5)	28 (4.2)	5 (1.8)	76 (3.1)	20 (3.0)	4 (1.8)				
Hong Kong, SAR	39 (4.5)	37 (4.3)	24 (3.9)	30 (4.3)	46 (4.3)	24 (3.8)				
Hungary	29 (4.1)	58 (4.1)	13 (2.8)	56 (4.1)	33 (4.0)	11 (2.7)				
Iceland	83 (0.4)	11 (0.3)	6 (0.2)	28 (0.3)	57 (0.4)	15 (0.4)				
Iran, Islamic Rep. of	67 (3.2)	28 (3.2)	5 (1.5)	60 (4.5)	37 (4.6)	4 (1.2)				
Israel	66 (4.2)	29 (4.0)	5 (2.0)	54 (3.8)	34 (4.2)	11 (3.0)				
Italy	61 (3.8)	33 (3.9)	5 (1.7)	64 (3.3)	31 (3.4)	6 (1.8)				
Kuwait	r 91 (2.3)	7 (2.0)	2 (1.1)	r 62 (3.5)	16 (2.8)	22 (2.5)				
Latvia	31 (4.0)	43 (4.4)	26 (4.1)	75 (3.7)	23 (3.5)	2 (1.4)				
Lithuania	47 (4.2)	38 (4.2)	15 (3.0)	84 (3.0)	15 (2.8)	1 (0.9)				
Macedonia, Rep. of	64 (3.8)	34 (3.9)	2 (1.1)	64 (4.6)	32 (4.5)	5 (1.7)				
Moldova, Rep. of	54 (4.4)	33 (4.1)	13 (2.6)	86 (3.0)	11 (2.8)	2 (0.8)				
Morocco	90 (3.1)	8 (2.9)	2 (1.4)	r 83 (4.0)	8 (3.1)	9 (3.2)				
Netherlands	47 (3.8)	41 (4.0)	12 (3.1)	40 (4.6)	40 (4.7)	20 (3.5)				
New Zealand	78 (3.5)	18 (3.1)	4 (1.7)	12 (2.6)	38 (4.4)	50 (4.4)				
Norway	73 (3.9)	23 (3.5)	4 (2.0)	25 (3.9)	51 (4.7)	24 (4.2)				
Romania	66 (4.2)	27 (4.1)	7 (2.4)	95 (1.9)	5 (1.8)	1 (0.4)				
Russian Federation	78 (3.4)	18 (2.7)	4 (1.6)	91 (2.2)	8 (2.2)	1 (0.6)				
Scotland	49 (5.5)	44 (5.2)	7 (2.5)	13 (3.6)	46 (4.6)	42 (4.9)				
Singapore	61 (4.1)	35 (3.8)	4 (1.6)	41 (3.9)	46 (4.0)	13 (2.6)				
Slovak Republic	52 (4.3)	36 (4.1)	12 (2.6)	77 (3.5)	19 (3.3)	3 (1.4)				
Slovenia	49 (3.7)	49 (3.9)	2 (1.2)	33 (4.1)	50 (4.0)	17 (3.1)				
Sweden	60 (3.3)	35 (3.2)	5 (1.2)	10 (2.3)	48 (3.6)	42 (3.8)				
Turkey	58 (4.5)	38 (4.4)	4 (1.9)	63 (4.2)	31 (4.0)	6 (2.2)				
United States	81 (3.6)	16 (3.0)	4 (1.8)	48 (4.7)	40 (4.5)	13 (3.1)				
International Avg.	61 (0.7)	31 (0.7)	9 (0.4)	56 (0.6)	31 (0.6)	13 (0.4)				

Background data provided by teachers.

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

Exhibit 6.19: Teachers' Reports About Reading Aloud or Silently in Class (Continued)



	Percentage of Students Whose Teachers Reported Various Reading Activities									
Countries		ts Read Alo Groups or P			ts Read Sile Their Own	ently				
	Daily	Weekly	Less than Weekly	Daily	Weekly	Less than Weekly				
Argentina	21 (4.3)	33 (5.0)	46 (4.7)	68 (5.2)	28 (5.1)	4 (1.8)				
Belize	25 (5.4)	57 (6.4)	18 (5.1)	41 (5.3)	43 (5.7)	16 (4.1)				
Bulgaria	19 (3.3)	43 (3.7)	38 (3.6)	86 (2.7)	10 (2.4)	3 (1.3)				
Canada (O,Q)	11 (2.1)	37 (3.0)	52 (3.2)	71 (3.1)	24 (2.9)	5 (1.2)				
Colombia	12 (3.2)	33 (4.1)	54 (4.4)	43 (4.7)	42 (4.3)	15 (3.2)				
Cyprus	9 (2.5)	29 (4.8)	62 (4.9)	55 (4.6)	36 (4.5)	9 (3.5)				
Czech Republic	3 (1.5)	31 (3.6)	66 (3.7)	43 (4.5)	46 (4.5)	11 (2.7)				
England	23 (4.2)	45 (5.0)	32 (4.1)	76 (4.0)	23 (4.0)	2 (1.2)				
France	1 (0.8)	11 (2.4)	88 (2.6)	78 (3.3)	20 (3.3)	2 (1.2)				
Germany	5 (1.1)	39 (3.0)	56 (2.9)	63 (3.3)	30 (3.4)	7 (1.6)				
Greece	16 (3.2)	25 (4.2)	58 (4.8)	49 (5.0)	33 (4.4)	19 (4.2)				
Hong Kong, SAR	6 (2.0)	27 (4.3)	68 (4.3)	39 (4.1)	34 (3.9)	28 (4.2)				
Hungary	5 (1.7)	20 (3.4)	75 (3.3)	66 (3.6)	28 (3.4)	5 (1.8)				
Iceland	4 (0.2)	12 (0.3)	85 (0.3)	47 (0.4)	44 (0.4)	9 (0.2)				
Iran, Islamic Rep. of	11 (2.1)	35 (4.2)	54 (4.2)	34 (3.5)	43 (3.3)	23 (3.6)				
Israel	23 (4.1)	45 (4.7)	33 (4.6)	61 (4.5)	32 (4.2)	7 (2.4)				
Italy	3 (1.2)	22 (3.3)	75 (3.5)	42 (3.9)	42 (3.6)	16 (2.7)				
Kuwait	r 12 (2.5)	29 (3.6)	59 (3.6)	34 (3.3)	47 (3.3)	19 (2.3)				
Latvia	11 (2.6)	32 (4.1)	57 (4.5)	73 (3.3)	22 (3.1)	5 (1.8)				
Lithuania	7 (2.2)	49 (4.6)	44 (4.5)	57 (3.9)	37 (3.8)	6 (1.7)				
Macedonia, Rep. of	10 (2.7)	26 (3.6)	64 (4.2)	44 (4.1)	33 (4.4)	23 (4.0)				
Moldova, Rep. of	24 (4.0)	55 (4.7)	21 (3.4)	85 (3.2)	10 (2.6)	5 (1.7)				
Morocco	r 22 (4.3)	19 (3.6)	59 (4.7)	58 (5.0)	34 (5.0)	7 (2.9)				
Netherlands	5 (1.9)	48 (4.8)	47 (4.7)	44 (4.4)	50 (4.6)	5 (1.8)				
New Zealand	26 (3.9)	54 (4.3)	20 (3.6)	92 (2.1)	8 (2.1)	0 (0.2)				
Norway	6 (1.9)	34 (4.3)	60 (4.6)	42 (3.9)	46 (4.1)	12 (2.4)				
Romania	7 (1.5)	32 (4.2)	61 (4.1)	71 (3.5)	21 (3.1)	8 (2.2)				
Russian Federation	33 (3.2)	43 (3.4)	24 (3.0)	86 (2.3)	11 (2.2)	3 (1.4)				
Scotland	36 (4.6)	45 (5.2)	18 (3.9)	62 (4.4)	36 (4.5)	2 (1.3)				
Singapore	10 (2.7)	45 (4.7)	45 (4.4)	59 (4.1)	35 (3.9)	6 (1.9)				
Slovak Republic	4 (1.5)	34 (3.9)	62 (3.8)	45 (4.2)	40 (4.2)	15 (2.7)				
Slovenia	5 (1.6)	31 (3.7)	64 (3.7)	59 (4.1)	35 (4.0)	6 (1.7)				
Sweden	5 (1.4)	47 (3.6)	49 (3.4)	78 (2.4)	20 (2.2)	1 (0.7)				
Turkey	5 (1.7)	21 (3.5)	74 (3.8)	49 (4.4)	46 (4.2)	5 (2.1)				
United States	19 (3.7)	51 (3.9)	30 (3.3)	72 (3.9)	23 (3.9)	5 (2.1)				
International Avg.	13 (0.5)	35 (0.7)	52 (0.7)	59 (0.7)	32 (0.6)	9 (0.4)				

What Activities Do Students Do in Response to Class Reading?

To provide information on what students do to strengthen and extend their understanding of what they have read, PIRLS asked students and teachers about activities students engage in after reading something in class. In many countries, oral questioning by the teacher about students' reading was an everyday activity (see Exhibit 6.20), and in all countries it happened with the majority of students at least once a week. Students also reported frequently answering questions in writing about what they had read in class. Exhibit 6.21 shows that 80 percent of students, on average, internationally, were in classes where this happens at least weekly. Another common activity was to have students talk with each other about what they have read (Exhibit 6.22). The majority of students (55%) were in classes where students reported talking with peers about their classroom reading at least once a week.

A less frequent activity after reading in class was to do a project about what was read. As shown in Exhibit 6.23, student projects about their reading, including drawing pictures or doing art work, acting in a play or drama, and doing a group project with other students, were no more than an occasional activity in most countries. Only 31 percent of students were in classes where students reported doing such projects about their reading as often as once a week. In about one-third of the countries, including the Czech Republic, England, Germany, Hong Kong, Iceland, The Netherlands, Norway, Singapore, Sweden, and the United States, the majority of students were in classes where projects about reading were never or almost never done.

Teachers' reports about the activities they asked their students to do after they have read something in class are summarized in Exhibit 6.24. In every country (except Iceland), most if not all students were in classes where teachers reported oral questioning about reading at least weekly. Having students write something about or in response to what they have read, and having students talk to each other about their reading also were frequently reported activities, with about two-thirds of students on average in classes where teachers reported doing these at least weekly. Drawing pictures, doing a play or drama, or doing a group project were all activities reported less frequently by fourth-grade teachers. Most teachers reported asking students to engage in

several different activities after they had read something in class. On average, 59 percent of students were in classes where teachers reported that they had students do at least three of the six activities (write something, answer questions orally, talk to one another, draw pictures or do an art project, do a play or dramatization, or do a group project) after they had read something in class.

Although not an everyday activity in most classes, students did sometimes take a written quiz or test about what they had read. Less than half (45%) the students were in classes that took a quiz about what they had read as often as once a week (see Exhibit 6.25), and in the Czech Republic, England, and Iceland, 50 percent or more of the students reported never or almost never taking a quiz about their reading. Teachers agreed that they gave a written quiz or test about what students had read relatively infrequently. As presented in Exhibit 6.26, the majority of students (52%) were in classes where teachers reported giving a quiz about reading only once or twice a month, and a further 26 percent were in classes where quizzes were almost never given. In Iceland, New Zealand, Norway, Scotland, and Sweden, the majority of students were in such classes.

Exhibit 6.20: Students Answer Questions Aloud About Class Reading



Countries	Every Day or Almost Every Day		Once or Tw	vice a Week	Once or Twi	ice a Month	Never or A	lmost Never
Countries	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievemen
Argentina	58 (1.4)	427 (6.1)	24 (1.0)	437 (6.3)	11 (0.8)	429 (9.9)	7 (0.6)	424 (9.0)
Belize	43 (2.1)	330 (6.3)	31 (1.6)	339 (7.2)	14 (0.9)	315 (7.6)	12 (1.2)	318 (6.6)
Bulgaria	70 (1.5)	557 (3.6)	23 (1.1)	552 (4.7)	5 (0.6)	517 (8.9)	2 (0.4)	~ ~
Canada (O,Q)	29 (1.2)	531 (3.2)	34 (1.1)	546 (2.7)	20 (1.0)	559 (3.2)	17 (0.9)	551 (3.9)
Colombia	60 (1.8)	422 (5.0)	25 (1.3)	432 (6.3)	6 (0.6)	420 (8.4)	9 (0.6)	416 (5.9)
Cyprus	68 (1.3)	503 (3.3)	21 (1.2)	488 (4.8)	8 (0.5)	468 (7.9)	3 (0.4)	456 (8.5)
Czech Republic	32 (1.6)	529 (3.3)	34 (1.4)	538 (3.0)	21 (1.1)	549 (3.2)	13 (1.1)	538 (3.3)
England	18 (1.2)	530 (5.1)	35 (1.2)	553 (3.9)	22 (1.0)	563 (4.5)	24 (1.3)	562 (4.8)
France	51 (1.3)	527 (3.0)	29 (1.1)	527 (2.9)	9 (0.6)	534 (5.2)	11 (0.8)	514 (5.5)
Germany	34 (0.8)	536 (2.7)	36 (0.8)	544 (2.1)	18 (0.6)	545 (3.0)	12 (0.6)	536 (3.7)
Greece	79 (1.3)	527 (4.0)	17 (1.1)	525 (5.6)	3 (0.4)	499 (13.5)	2 (0.3)	~ ~
Hong Kong, SAR	32 (1.1)	538 (3.0)	33 (1.2)	534 (3.1)	17 (0.8)	523 (3.9)	18 (0.9)	510 (5.1)
Hungary	52 (1.9)	546 (2.6)	34 (1.4)	544 (2.5)	10 (0.8)	541 (5.2)	4 (0.4)	540 (6.6)
Iceland	21 (0.6)	497 (3.3)	31 (0.6)	520 (2.3)	18 (0.6)	526 (3.4)	30 (0.8)	512 (2.9)
Iran, Islamic Rep. of	59 (1.5)	419 (4.0)	28 (1.2)	420 (6.7)	6 (0.8)	377 (7.6)	6 (0.6)	391 (7.5)
Israel	46 (1.0)	502 (3.6)	33 (0.9)	524 (3.8)	12 (0.6)	514 (5.6)	10 (0.7)	513 (7.3)
Italy	44 (1.2)	534 (2.7)	34 (1.0)	546 (3.2)	14 (0.6)	554 (4.2)	8 (0.5)	543 (5.6)
Kuwait r	64 (1.3)	410 (4.6)	20 (0.8)	388 (5.5)	8 (0.5)	372 (7.6)	8 (0.7)	391 (5.8)
Latvia	44 (1.6)	541 (3.1)	41 (1.2)	552 (2.4)	12 (0.7)	544 (4.5)	4 (0.4)	533 (8.5)
Lithuania	47 (1.4)	539 (3.5)	39 (1.2)	549 (3.9)	11 (0.6)	551 (4.7)	3 (0.4)	531 (9.3)
Macedonia, Rep. of	69 (1.5)	452 (4.5)	24 (1.5)	444 (6.9)	6 (0.6)	394 (13.5)	1 (0.2)	~ ~
Moldova, Rep. of	74 (1.9)	498 (4.2)	21 (1.6)	486 (6.6)	3 (0.4)	465 (10.5)	1 (0.2)	~ ~
Morocco	66 (1.8)	363 (11.4)	23 (1.5)	323 (8.9)	7 (0.8)	331 (13.2)	4 (0.7)	349 (22.8)
Netherlands	17 (1.0)	535 (3.9)	21 (0.8)	559 (3.6)	15 (0.8)	559 (3.1)	47 (1.4)	559 (2.7)
New Zealand	23 (1.1)	492 (5.6)	38 (1.2)	534 (4.4)	22 (1.0)	551 (5.3)	17 (1.0)	547 (5.8)
Norway	28 (1.2)	493 (4.8)	39 (1.2)	504 (3.3)	18 (1.0)	508 (4.2)	15 (1.0)	495 (4.9)
Romania	72 (1.6)	519 (4.8)	22 (1.4)	509 (6.2)	3 (0.3)	455 (12.5)	2 (0.3)	~ ~
Russian Federation	54 (1.7)	532 (5.0)	34 (1.4)	528 (4.8)	7 (0.6)	522 (6.7)	5 (0.4)	499 (7.5)
Scotland	24 (2.7)	503 (5.3)	39 (2.0)	533 (4.6)	18 (1.0)	544 (6.5)	20 (1.6)	537 (5.5)
Singapore	26 (0.9)	519 (6.1)	32 (0.8)	532 (5.7)	17 (0.6)	539 (5.8)	26 (0.8)	527 (5.5)
Slovak Republic	38 (1.5)	507 (4.1)	38 (1.3)	526 (3.0)	17 (0.9)	531 (4.3)	6 (0.7)	522 (6.2)
Slovenia	33 (1.5)	489 (3.6)	41 (1.2)	506 (2.7)	22 (1.1)	512 (3.4)	5 (0.6)	509 (5.9)
Sweden	21 (1.0)	553 (3.5)	38 (0.9)	560 (2.6)	24 (0.9)	567 (2.5)	17 (1.1)	565 (3.4)
Turkey	60 (1.4)	462 (4.0)	29 (1.1)	439 (5.3)	7 (0.5)	400 (7.3)	4 (0.4)	441 (9.1)
United States	32 (1.4)	528 (5.0)	31 (1.2)	548 (3.4)	16 (0.9)	557 (6.3)	21 (1.3)	547 (5.7)
International Avg.	45 (0.2)	497 (0.8)	31 (0.2)	502 (0.8)	13 (0.1)	495 (1.2)	11 (0.1)	496 (1.6)

Background data provided by students.

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

Exhibit 6.21: Students Answer Questions in Writing About Class Reading*

ISC 4th Grade PIRLS 2001

6		or Almost y Day	Once or Tv	vice a Week	Once or Tw	ice a Month	Never or A	lmost Neve
Countries	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achieveme
Argentina	64 (1.5)	431 (5.4)	27 (1.3)	435 (7.9)	4 (0.5)	422 (15.7)	5 (0.5)	397 (10.8
Belize	42 (2.2)	329 (6.4)	43 (2.0)	332 (6.1)	9 (0.8)	320 (10.3)	6 (0.6)	327 (11.
Bulgaria	40 (1.7)	550 (4.7)	44 (1.5)	561 (3.6)	9 (0.8)	553 (7.1)	7 (0.8)	517 (13.
Canada (O,Q)	27 (1.2)	528 (3.1)	45 (0.9)	548 (2.6)	15 (0.7)	558 (3.8)	13 (0.8)	551 (4.2
Colombia	70 (1.7)	423 (4.7)	24 (1.5)	429 (6.4)	3 (0.5)	428 (16.2)	3 (0.4)	428 (16
Cyprus	55 (1.3)	491 (3.5)	36 (1.2)	502 (4.0)	5 (0.5)	512 (8.0)	3 (0.4)	482 (9.5
Czech Republic	19 (1.6)	522 (3.9)	42 (1.6)	537 (2.8)	19 (1.1)	545 (3.5)	20 (1.5)	546 (4.1
England	22 (1.4)	530 (6.7)	47 (1.2)	558 (3.5)	15 (0.8)	569 (4.1)	17 (1.3)	555 (6.2
France	24 (1.2)	504 (3.2)	46 (1.2)	530 (2.8)	17 (0.7)	538 (3.7)	13 (0.9)	538 (4.1
Germany	19 (0.7)	521 (2.8)	42 (0.9)	540 (2.3)	17 (0.7)	553 (2.5)	22 (0.8)	548 (3.0
Greece	54 (1.9)	515 (3.8)	34 (1.7)	536 (4.5)	6 (0.6)	541 (5.4)	6 (0.7)	541 (10
Hong Kong, SAR	30 (1.0)	529 (3.4)	52 (0.9)	531 (3.1)	11 (0.6)	524 (5.0)	7 (0.4)	518 (5.8
Hungary	51 (1.9)	538 (2.6)	40 (1.7)	552 (2.7)	6 (0.5)	548 (6.2)	3 (0.4)	532 (14
Iceland	26 (0.7)	495 (2.3)	44 (0.7)	521 (1.7)	16 (0.6)	523 (3.3)	15 (0.5)	516 (4.
Iran, Islamic Rep. of	49 (2.0)	414 (4.6)	40 (1.2)	421 (5.2)	7 (1.1)	396 (11.2)	4 (0.5)	395 (13
Israel	54 (1.2)	506 (3.4)	37 (1.1)	517 (3.4)	6 (0.5)	533 (8.0)	3 (0.4)	522 (10
Italy	39 (1.2)	528 (3.2)	44 (1.3)	550 (2.5)	10 (0.6)	550 (4.6)	7 (0.6)	546 (5.
Kuwait r	48 (1.7)	407 (3.8)	38 (1.4)	402 (5.4)	8 (0.6)	386 (9.1)	6 (0.6)	365 (12
Latvia	34 (1.4)	534 (3.0)	48 (1.4)	549 (2.9)	10 (0.8)	560 (6.0)	8 (0.9)	556 (5.
Lithuania	39 (1.4)	526 (2.9)	40 (1.1)	552 (3.2)	10 (0.6)	558 (5.6)	11 (1.0)	566 (5.
Macedonia, Rep. of	67 (1.6)	446 (4.8)	30 (1.6)	448 (6.5)	2 (0.3)	~ ~	1 (0.2)	~ ~
Moldova, Rep. of	43 (2.4)	492 (4.5)	48 (2.6)	496 (5.5)	5 (0.7)	479 (7.9)	4 (0.6)	486 (11
Morocco	47 (2.4)	356 (14.0)	42 (2.4)	347 (10.0)	8 (1.7)	360 (19.5)	3 (0.5)	318 (25
Netherlands	14 (0.9)	538 (4.3)	37 (1.3)	555 (3.1)	20 (0.7)	560 (3.2)	29 (1.3)	559 (2.
New Zealand	26 (1.5)	507 (5.1)	45 (1.5)	539 (3.8)	16 (1.1)	542 (7.1)	14 (1.0)	541 (6.
Norway	19 (1.1)	480 (5.6)	48 (1.4)	502 (3.4)	17 (0.9)	511 (5.1)	16 (1.1)	508 (5.
Romania	60 (2.2)	511 (4.7)	34 (2.0)	519 (6.8)	4 (0.5)	502 (11.3)	3 (0.3)	501 (18
Russian Federation	21 (1.4)	503 (6.9)	47 (1.6)	531 (4.4)	14 (0.9)	539 (5.2)	17 (1.4)	546 (5
Scotland	26 (1.4)	501 (5.2)	50 (1.8)	535 (4.2)	14 (1.1)	552 (5.5)	10 (1.0)	544 (7.
Singapore	31 (1.0)	508 (5.9)	43 (0.9)	536 (5.1)	13 (0.5)	545 (6.2)	13 (0.7)	536 (6.
Slovak Republic	29 (1.8)	503 (4.7)	47 (1.6)	525 (3.3)	14 (1.0)	530 (4.3)	11 (1.1)	522 (6.
Slovenia	34 (1.4)	492 (3.0)	51 (1.4)	506 (2.4)	9 (0.8)	520 (4.5)	5 (0.7)	507 (9.
Sweden	10 (0.7)	540 (4.4)	40 (1.7)	560 (2.8)	21 (1.0)	564 (2.8)	29 (1.7)	567 (2.
Turkey	51 (2.1)	452 (3.8)	40 (1.8)	450 (5.2)	5 (0.8)	445 (9.5)	3 (0.4)	436 (11
United States	35 (1.4)	522 (5.2)	42 (1.0)	553 (3.8)	13 (0.7)	565 (5.0)	10 (1.0)	546 (7.
	38 (0.3)	491 (0.8)	42 (0.3)	506 (0.8)	11 (0.1)	510 (1.4)	10 (0.1)	502 (1.8

^{*}Based on students' responses to how often they have done the following after having read something in class: answer questions in a workbook or on a worksheet about what was read; and write something about what was read. Average is computed based on a 4-point scale: Every day or almost every day = 1, Once or twice a week = 2, Once or twice a month = 3, and Never or

almost never = 4. Every day or almost every day indicates an average of 1 to less than 1.75. Once or twice a week indicates an average of 1.75 through 2.5. Once or twice a month indicates an average of greater than 2.5 through 3.25. Never or almost never indicates an average of greater than 3.25 through 4.

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

A dash (–) indicates data are not available. A tilde (\sim) indicates insufficient data to report achievement.

Exhibit 6.22: Students Talk in Class with Peers About Reading



Countries	, ,	or Almost y Day	Once or Tv	vice a Week	Once or Tw	ice a Month	Never or A	lmost Never
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievemen
Argentina r	44 (1.5)	421 (5.8)	24 (0.9)	440 (5.4)	10 (0.7)	430 (10.7)	21 (1.2)	441 (7.9)
Belize	29 (1.4)	326 (5.6)	31 (1.2)	332 (6.3)	14 (0.7)	309 (8.8)	26 (1.2)	341 (7.8)
Bulgaria	33 (1.5)	547 (4.5)	35 (1.4)	562 (4.1)	13 (0.8)	556 (5.9)	18 (1.2)	541 (6.6)
Canada (O,Q)	15 (0.8)	533 (4.0)	29 (0.8)	551 (2.9)	23 (0.7)	552 (3.5)	33 (1.0)	539 (2.6)
Colombia	47 (2.2)	412 (5.0)	30 (1.6)	431 (5.4)	9 (0.7)	439 (8.2)	14 (1.1)	442 (7.8)
Cyprus	35 (1.5)	486 (3.5)	37 (1.0)	503 (4.1)	15 (0.8)	498 (6.2)	13 (1.0)	501 (6.0)
Czech Republic	9 (0.8)	527 (6.0)	23 (1.1)	539 (3.4)	25 (1.0)	552 (2.5)	43 (1.6)	529 (2.9)
England	11 (0.7)	535 (7.0)	27 (0.9)	560 (4.0)	24 (1.0)	572 (4.9)	39 (1.3)	543 (4.4)
France	16 (0.8)	518 (4.4)	27 (1.0)	528 (3.4)	19 (1.0)	539 (4.2)	38 (1.0)	522 (2.9)
Germany	15 (0.5)	533 (3.1)	25 (0.6)	548 (2.2)	20 (0.6)	552 (2.8)	40 (0.9)	533 (2.6)
Greece	34 (1.3)	520 (3.9)	31 (1.2)	531 (5.0)	13 (0.9)	534 (6.7)	22 (1.3)	519 (5.8)
Hong Kong, SAR	18 (0.8)	527 (3.8)	34 (0.7)	534 (3.4)	26 (0.8)	533 (3.2)	22 (0.8)	519 (4.5)
Hungary	14 (1.2)	538 (3.8)	28 (1.3)	545 (3.1)	22 (0.9)	552 (2.9)	36 (1.3)	542 (2.8)
Iceland	9 (0.5)	491 (5.4)	20 (0.7)	526 (2.7)	18 (0.6)	525 (3.1)	54 (0.8)	510 (1.5)
Iran, Islamic Rep. of	35 (1.0)	414 (4.4)	41 (1.1)	423 (5.2)	14 (0.9)	413 (6.6)	9 (0.7)	388 (7.9)
Israel	27 (0.8)	495 (3.7)	31 (0.9)	518 (3.4)	17 (0.8)	530 (5.1)	25 (1.0)	508 (4.4)
Italy	33 (1.2)	532 (3.3)	30 (1.1)	543 (3.3)	16 (0.9)	557 (3.9)	21 (0.9)	543 (3.5)
Kuwait r	33 (1.0)	405 (4.2)	36 (1.1)	409 (4.2)	15 (0.9)	390 (7.2)	16 (0.7)	385 (6.5)
Latvia	19 (1.0)	539 (3.7)	35 (1.1)	543 (3.0)	21 (0.8)	555 (3.3)	25 (1.3)	545 (3.0)
Lithuania	20 (1.0)	535 (4.3)	39 (1.1)	549 (3.0)	20 (0.9)	549 (3.9)	20 (0.9)	539 (3.9)
Macedonia, Rep. of	46 (1.5)	441 (5.0)	38 (1.3)	453 (5.7)	10 (0.8)	447 (8.8)	5 (0.4)	426 (11.6)
Moldova, Rep. of	44 (2.5)	501 (4.6)	42 (2.0)	492 (5.0)	9 (0.8)	476 (7.8)	5 (0.6)	464 (10.7)
Morocco	38 (2.4)	366 (15.0)	39 (2.1)	341 (9.7)	13 (1.0)	346 (13.5)	10 (1.0)	346 (15.2)
Netherlands	5 (0.5)	527 (7.8)	14 (0.7)	562 (3.6)	18 (0.9)	567 (3.1)	62 (1.2)	552 (2.7)
New Zealand	17 (0.9)	502 (6.8)	31 (1.2)	535 (5.3)	23 (1.0)	550 (4.9)	29 (1.2)	528 (4.0)
Norway	8 (0.7)	472 (7.3)	24 (0.9)	507 (4.3)	23 (0.8)	510 (4.1)	46 (1.2)	497 (3.6)
Romania	36 (2.0)	515 (5.1)	41 (1.6)	516 (5.4)	13 (0.9)	519 (8.8)	10 (1.0)	486 (7.3)
Russian Federation	25 (1.7)	526 (6.6)	33 (1.0)	527 (5.4)	16 (0.9)	537 (5.4)	26 (1.3)	528 (3.4)
Scotland	12 (0.8)	498 (6.4)	31 (2.1)	529 (4.9)	20 (0.9)	551 (4.6)	36 (2.0)	527 (4.6)
Singapore	14 (0.6)	512 (7.7)	24 (0.7)	536 (5.3)	19 (0.6)	533 (6.6)	43 (0.9)	528 (4.6)
Slovak Republic	16 (1.2)	503 (5.6)	31 (1.1)	530 (2.9)	27 (1.1)	526 (3.5)	25 (1.4)	508 (5.0)
Slovenia	16 (0.8)	493 (4.7)	30 (1.2)	501 (2.7)	22 (1.1)	511 (3.7)	33 (1.6)	503 (2.9)
Sweden	7 (0.5)	554 (5.1)	27 (0.9)	569 (3.2)	32 (0.9)	564 (2.5)	34 (1.1)	553 (2.4)
Turkey	34 (1.2)	454 (4.5)	42 (1.3)	455 (3.9)	14 (0.7)	446 (5.6)	10 (1.2)	421 (10.2)
United States	14 (0.9)	520 (7.2)	24 (0.9)	549 (4.8)	20 (0.9)	554 (4.8)	42 (1.3)	541 (4.2)

Background data provided by students.

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

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

Exhibit 6.23: Students Do Projects About Class Reading*



Countries		or Almost y Day	Once or Tv	vice a Week	Once or Tw	ice a Month	Never or A	lmost Never
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievemen
Argentina	36 (1.3)	411 (6.7)	32 (0.9)	429 (6.2)	21 (1.1)	449 (6.5)	11 (1.0)	459 (11.0)
Belize	21 (1.2)	318 (6.4)	34 (1.5)	325 (6.2)	29 (1.2)	331 (6.9)	16 (1.4)	349 (8.3)
Bulgaria	10 (0.8)	516 (5.2)	21 (1.2)	544 (6.1)	35 (1.5)	563 (3.5)	34 (1.6)	558 (5.8)
Canada (O,Q)	8 (0.7)	500 (3.7)	15 (0.8)	519 (3.6)	28 (0.9)	545 (2.9)	49 (1.2)	559 (2.7)
Colombia	36 (2.2)	403 (5.7)	29 (1.1)	424 (4.2)	20 (1.2)	444 (5.7)	15 (1.5)	448 (9.4)
Cyprus	20 (1.1)	466 (4.2)	31 (1.1)	488 (3.4)	31 (1.2)	506 (4.2)	18 (1.0)	526 (4.4)
Czech Republic	3 (0.5)	499 (8.2)	11 (1.0)	512 (5.6)	30 (1.5)	532 (3.2)	56 (1.9)	547 (2.6)
England	4 (0.6)	469 (11.4)	11 (0.9)	509 (6.2)	25 (1.3)	542 (3.7)	61 (2.0)	570 (3.5)
France	6 (0.6)	483 (5.8)	16 (0.8)	500 (3.1)	30 (1.0)	524 (3.0)	48 (1.6)	542 (2.7)
Germany	5 (0.4)	495 (6.3)	13 (0.6)	519 (3.6)	25 (0.6)	535 (2.9)	57 (1.0)	551 (1.8)
Greece	11 (0.8)	476 (4.8)	22 (1.3)	513 (4.8)	33 (1.5)	525 (4.9)	33 (1.6)	551 (4.1)
Hong Kong, SAR	3 (0.3)	499 (7.5)	11 (0.5)	510 (5.2)	31 (0.9)	530 (3.6)	55 (1.0)	533 (2.9)
Hungary	6 (0.5)	500 (5.1)	21 (1.2)	530 (3.3)	37 (1.2)	547 (2.6)	37 (1.4)	556 (2.6)
Iceland	3 (0.4)	458 (9.3)	12 (0.6)	497 (4.2)	27 (0.7)	518 (2.4)	57 (0.8)	519 (1.5)
Iran, Islamic Rep. of	12 (0.8)	394 (5.6)	28 (1.6)	404 (5.2)	29 (1.1)	423 (5.3)	31 (2.1)	425 (7.8)
Israel	15 (0.9)	473 (5.9)	24 (0.8)	489 (3.5)	28 (0.9)	513 (3.8)	32 (1.2)	545 (3.4)
Italy	9 (0.7)	498 (5.3)	19 (0.9)	518 (3.7)	29 (0.9)	541 (3.2)	43 (1.3)	561 (2.6)
Kuwait r	12 (0.9)	398 (5.2)	23 (1.2)	399 (4.1)	27 (1.2)	407 (4.4)	38 (2.1)	398 (7.2)
Latvia	13 (0.8)	519 (3.4)	23 (1.0)	537 (3.1)	31 (1.3)	548 (3.5)	33 (1.6)	558 (3.1)
Lithuania	4 (0.5)	480 (6.8)	23 (1.0)	525 (3.2)	23 (1.0)	546 (3.5)	50 (1.7)	559 (3.0)
Macedonia, Rep. of	29 (1.5)	402 (6.0)	33 (1.3)	444 (4.6)	29 (1.6)	477 (5.8)	9 (0.8)	495 (8.7)
Moldova, Rep. of	13 (1.5)	477 (7.4)	31 (2.0)	494 (4.7)	38 (2.6)	500 (5.5)	18 (2.0)	486 (7.5)
Morocco	12 (1.0)	330 (13.5)	26 (1.9)	333 (9.5)	25 (1.3)	353 (9.3)	37 (2.9)	371 (16.4
Netherlands	1 (0.3)	~ ~	4 (0.4)	510 (7.0)	12 (0.7)	541 (3.9)	83 (1.0)	560 (2.3)
New Zealand	10 (0.9)	470 (6.7)	18 (1.2)	497 (5.4)	31 (1.3)	537 (4.5)	42 (1.3)	555 (3.8)
Norway	3 (0.4)	443 (10.4)	10 (0.7)	473 (7.1)	24 (0.8)	492 (4.8)	63 (1.3)	510 (3.1)
Romania	6 (0.7)	446 (12.9)	16 (1.1)	488 (5.9)	30 (1.6)	516 (6.8)	48 (2.3)	527 (5.5)
Russian Federation	10 (0.8)	482 (11.6)	19 (1.2)	515 (6.6)	31 (1.5)	534 (4.7)	40 (2.0)	542 (3.6)
Scotland	8 (0.8)	478 (9.0)	20 (2.3)	508 (5.0)	27 (1.7)	525 (4.5)	45 (2.4)	549 (4.5)
Singapore	6 (0.5)	450 (8.4)	14 (0.7)	473 (8.3)	22 (0.7)	513 (5.7)	58 (1.4)	555 (3.9)
Slovak Republic	5 (0.5)	484 (8.7)	18 (1.3)	508 (4.7)	39 (1.5)	513 (3.7)	38 (1.4)	525 (4.3)
Slovenia	9 (0.7)	449 (6.7)	20 (1.0)	480 (3.7)	34 (1.2)	508 (2.5)	36 (1.7)	523 (3.0)
Sweden	1 (0.2)	~ ~	8 (0.5)	539 (6.4)	24 (1.1)	556 (3.2)	68 (1.3)	566 (2.0)
Turkey		433 (6.8)	24 (1.3)	442 (4.8)	30 (1.1)			456 (4.7)
United States	12 (1.1) 6 (0.6)	471 (8.0)	13 (0.8)	490 (5.8)	26 (1.1)	456 (4.5) 533 (3.9)	34 (1.8) 55 (1.7)	
omited states	0 (0.0)	4/1 (0.0)	13 (0.0)	450 (3.0)	20 (1.2)	533 (3.9)	JJ (1.7)	567 (3.7)

^{*}Based on students' responses to how often they have done the following after having read something in class: draw pictures or do an art project about what was read; act in a play or drama about what was read; and do a group project with other students in the class about what was read. Average is computed based on a 4-point scale: Every day or almost every day = 1, Once or twice a

week = 2, Once or twice a month = 3, and Never or almost never = 4. Every day or almost every day indicates an average of 1 to less than 1.75. Once or twice a week indicates an average of 1.75 through 2.5. Once or twice a month indicates an average of greater than 2.5 through 3.25. Never or almost never indicates an average of greater than 3.25 through 4.

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

A dash (–) indicates data are not available. A tilde (\sim) indicates insufficient data to report achievement.

Exhibit 6.24: Teachers' Reports About Reading Comprehension Activities After Instruction



		Pero		dents Whose Te Is Activities At	eachers Asked Th Least Weekly	iem	
Countries	Write Something in Response to Their Reading	Orally Answer Questions or Give Oral Summary	Talk With Each Other	Draw Pictures or Do an Art Project	Do a Play or Dramatization	Do a Group Project	At Least Three of the Previous Activities
Argentina	86 (3.7)	91 (3.2)	82 (4.3)	76 (4.0)	22 (3.4)	52 (5.5)	88 (3.2)
Belize	81 (4.0)	94 (2.2)	69 (6.5)	59 (5.8)	33 (5.4)	r 23 (4.3)	73 (5.0)
Bulgaria	57 (3.9)	99 (0.6)	80 (3.5)	38 (3.9)	17 (3.0)	12 (2.5)	61 (4.1)
Canada (O,Q)	54 (2.8)	84 (2.5)	52 (3.4)	26 (2.7)	6 (1.7)	7 (1.5)	41 (3.0)
Colombia	83 (3.8)	84 (3.4)	79 (4.1)	55 (4.5)	15 (3.3)	14 (3.2)	75 (3.9)
Cyprus	83 (4.3)	95 (2.5)	83 (3.8)	33 (4.0)	54 (5.1)	48 (4.8)	83 (3.8)
Czech Republic	80 (3.1)	98 (1.1)	80 (3.1)	46 (4.3)	13 (2.5)	11 (2.8)	74 (3.5)
England	79 (3.7)	94 (2.3)	67 (4.8)	14 (3.8)	8 (2.9)	4 (1.9)	63 (4.9)
France	18 (2.7)	78 (3.3)	32 (3.3)	10 (2.4)	4 (1.4)	10 (2.0)	17 (2.5)
Germany	41 (2.6)	95 (1.4)	95 (1.2)	15 (2.0)	2 (1.0)	14 (2.4)	47 (3.0)
Greece	72 (4.2)	96 (1.7)	60 (4.4)	32 (4.7)	19 (3.6)	12 (2.7)	56 (4.4)
Hong Kong, SAR	44 (4.9)	85 (3.0)	37 (4.7)	6 (1.9)	3 (1.5)	5 (2.0)	24 (3.9)
Hungary	75 (3.3)	99 (0.8)	46 (4.2)	36 (4.5)	19 (3.0)	17 (3.1)	59 (4.2)
Iceland	51 (0.4)	45 (0.4)	21 (0.3)	35 (0.3)	2 (0.1)	13 (0.2)	25 (0.3)
Iran, Islamic Rep. of	67 (3.8)	86 (2.8)	60 (3.9)	28 (3.1)	11 (2.3)	10 (2.3)	49 (4.2)
Israel	96 (1.8)	89 (2.8)	70 (4.3)	42 (4.2)	39 (4.6)	23 (3.2)	74 (4.1)
Italy	63 (3.5)	93 (2.0)	72 (3.1)	56 (3.2)	7 (1.7)	5 (1.8)	67 (3.2)
Kuwait	70 (3.7)	81 (2.8)	60 (4.0)	r 22 (3.6)	28 (3.1)	20 (3.2)	56 (4.3)
Latvia	68 (3.5)	98 (1.2)	63 (4.5)	56 (4.3)	23 (4.0)	5 (2.3)	66 (4.5)
Lithuania	72 (3.5)	97 (1.3)	83 (3.1)	32 (3.4)	13 (2.7)	6 (1.8)	66 (3.8)
Macedonia, Rep. of	88 (3.1)	95 (2.0)	80 (2.9)	47 (4.3)	39 (4.2)	20 (3.6)	77 (3.6)
Moldova, Rep. of	83 (3.2)	99 (0.9)	86 (3.0)	59 (4.3)	32 (4.0)	55 (4.2)	84 (3.3)
Morocco	58 (4.3)	96 (1.9)	76 (4.8)	21 (4.9)	14 (4.2)	13 (3.1)	56 (4.4)
Netherlands	40 (4.6)	72 (4.4)	57 (4.5)	18 (3.6)	3 (1.5)	1 (0.9)	29 (4.0)
New Zealand	80 (3.4)	87 (2.9)	78 (3.8)	47 (4.1)	13 (2.9)	9 (2.1)	71 (4.1)
Norway	51 (4.1)	80 (3.4)	32 (3.6)	23 (3.5)	3 (1.2)	1 (0.5)	28 (3.6)
Romania	93 (2.0)	97 (1.5)	75 (4.0)	18 (3.7)	39 (4.2)	6 (2.0)	84 (3.1)
Russian Federation	33 (3.3)	99 (0.7)	79 (3.2)	48 (3.2)	19 (2.9)	6 (1.7)	54 (3.7)
Scotland	62 (4.1)	93 (2.1)	56 (4.9)	23 (4.5)	0 (0.0)	3 (1.7)	43 (5.0)
Singapore	55 (4.4)	92 (2.0)	57 (3.9)	13 (2.7)	7 (2.1)	5 (1.7)	43 (3.9)
Slovak Republic	76 (3.7)	100 (0.4)	68 (3.8)	61 (4.3)	14 (2.8)	8 (2.4)	71 (3.9)
Slovenia	73 (3.4)	93 (2.2)	71 (3.7)	66 (4.2)	29 (4.0)	5 (1.9)	73 (3.8)
Sweden	64 (3.3)	66 (3.4)	45 (4.1)	22 (2.9)	2 (0.9)	6 (1.7)	41 (3.7)
Turkey	95 (1.8)	91 (2.6)	71 (4.0)	35 (4.1)	29 (4.2)	8 (2.4)	74 (3.7)
United States	83 (3.6)	97 (1.8)	70 (4.1)	36 (4.4)	2 (0.8)	13 (3.3)	69 (4.2)
International Avg.	68 (0.6)	90 (0.4)	65 (0.7)	36 (0.6)	17 (0.5)	13 (0.5)	59 (0.7)

Background data provided by teachers.

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

Exhibit 6.25: Students' Reports on Taking a Quiz or Test After Reading



Countries		or Almost y Day	Once or Tw	vice a Week	Once or Tw	ice a Month	Never or A	lmost Never
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievemen
Argentina	45 (1.4)	423 (6.3)	26 (0.9)	437 (6.6)	17 (0.9)	439 (8.0)	13 (0.8)	431 (8.3)
Belize	30 (2.0)	321 (7.2)	42 (1.9)	338 (6.5)	17 (1.2)	331 (7.1)	12 (1.0)	316 (9.1)
Bulgaria	17 (1.0)	511 (6.5)	34 (1.5)	563 (4.7)	36 (1.7)	562 (4.2)	14 (1.2)	551 (9.9)
Canada (O,Q)	12 (0.6)	518 (3.7)	24 (1.0)	539 (3.4)	31 (1.2)	553 (2.5)	33 (1.2)	550 (3.6)
Colombia	53 (1.8)	417 (5.0)	28 (1.4)	430 (6.1)	12 (1.2)	434 (9.2)	7 (0.5)	438 (8.2)
Cyprus	18 (0.9)	457 (4.9)	25 (1.2)	489 (4.3)	45 (1.3)	512 (3.1)	12 (0.8)	507 (7.1)
Czech Republic	5 (0.6)	484 (5.7)	14 (1.2)	533 (4.6)	27 (1.9)	545 (3.8)	53 (2.1)	540 (3.1)
England	5 (0.5)	483 (8.7)	14 (1.0)	534 (5.8)	31 (1.1)	560 (3.9)	50 (1.6)	561 (3.7)
France	21 (1.5)	499 (3.8)	26 (1.2)	521 (2.9)	31 (1.6)	542 (3.4)	22 (1.2)	535 (3.7)
Germany	9 (0.5)	501 (3.7)	18 (0.7)	530 (2.7)	35 (0.7)	553 (2.5)	39 (0.9)	543 (2.3)
Greece	19 (1.3)	494 (4.6)	41 (1.7)	529 (5.3)	34 (1.8)	534 (4.8)	7 (1.1)	549 (13.2)
Hong Kong, SAR	5 (0.4)	496 (7.5)	14 (0.8)	519 (5.2)	35 (1.3)	531 (3.7)	46 (1.1)	533 (3.2)
Hungary	9 (0.7)	508 (5.7)	27 (1.4)	537 (3.8)	50 (1.6)	552 (2.5)	13 (0.9)	557 (4.2)
Iceland	6 (0.4)	444 (5.2)	11 (0.6)	494 (4.1)	33 (0.8)	518 (2.1)	50 (0.7)	524 (1.8)
Iran, Islamic Rep. of	23 (1.4)	402 (5.7)	39 (1.3)	419 (4.5)	27 (1.5)	423 (6.0)	10 (0.7)	410 (9.5)
Israel	42 (1.1)	501 (3.5)	25 (0.8)	516 (3.4)	19 (1.0)	531 (6.0)	14 (0.7)	514 (5.5)
Italy	28 (1.3)	518 (3.5)	32 (1.2)	547 (2.8)	27 (1.2)	554 (3.2)	13 (0.9)	551 (5.1)
Kuwait r	26 (1.5)	401 (4.2)	32 (1.3)	412 (5.4)	21 (1.0)	394 (5.3)	21 (1.3)	392 (7.5)
Latvia	15 (1.0)	520 (5.0)	25 (1.4)	538 (3.0)	35 (1.2)	553 (3.3)	24 (1.4)	558 (3.2)
Lithuania	8 (0.7)	494 (6.4)	20 (1.0)	527 (4.0)	42 (1.1)	552 (2.8)	30 (1.2)	558 (3.9)
Macedonia, Rep. of	23 (1.4)	399 (5.9)	27 (1.3)	424 (5.9)	27 (1.6)	474 (5.8)	22 (1.5)	492 (6.5)
Moldova, Rep. of	27 (2.1)	487 (4.9)	54 (3.0)	496 (4.9)	16 (1.9)	497 (7.1)	3 (0.5)	459 (14.2)
Morocco	21 (1.6)	324 (12.0)	34 (2.1)	354 (10.1)	26 (1.7)	362 (10.6)	19 (2.4)	356 (29.0)
Netherlands	5 (0.4)	519 (6.6)	19 (1.2)	552 (3.9)	32 (1.0)	561 (2.7)	45 (1.5)	555 (3.1)
New Zealand	10 (0.8)	460 (7.3)	16 (1.1)	508 (4.8)	35 (1.3)	542 (4.4)	39 (1.6)	549 (4.7)
Norway	9 (0.6)	475 (6.7)	18 (1.0)	499 (4.6)	32 (1.1)	508 (3.9)	40 (1.2)	501 (3.7)
Romania	16 (1.1)	475 (5.2)	51 (1.9)	522 (5.5)	26 (1.9)	522 (6.3)	7 (0.6)	498 (7.9)
Russian Federation	16 (0.9)	495 (6.8)	28 (1.2)	522 (6.2)	39 (1.5)	541 (4.0)	16 (1.0)	544 (5.0)
Scotland	8 (0.8)	479 (6.9)	22 (2.5)	519 (5.1)	33 (1.8)	542 (4.0)	37 (2.1)	533 (5.0)
Singapore	9 (0.5)	469 (7.2)	17 (0.6)	500 (6.4)	25 (0.7)	537 (5.7)	49 (1.2)	545 (4.6)
Slovak Republic	7 (0.6)	470 (7.2)	15 (1.0)	511 (4.6)	35 (1.5)	528 (3.1)	42 (1.9)	523 (3.9)
Slovenia	14 (0.9)	469 (4.4)	29 (1.3)	497 (3.4)	36 (1.6)	514 (2.7)	21 (1.4)	513 (3.5)
Sweden	16 (0.9)	538 (3.4)	24 (1.2)	553 (3.4)	36 (1.3)	571 (2.4)	24 (1.5)	569 (2.7)
Turkey	20 (1.5)	445 (5.5)	34 (1.5)	451 (4.6)	37 (2.2)	455 (3.8)	9 (1.3)	433 (11.6)
United States	18 (1.1)	510 (4.3)	32 (1.3)	548 (3.9)	28 (1.2)	559 (4.7)	22 (1.2)	543 (6.2)
International Ava	10 (0.2)	460 (1.0)	27 (0.2)	407 (0.0)	20 (0.2)	511 (0.0)	25 (0.2)	507 (1.4)
International Avg.	18 (0.2)	469 (1.0)	27 (0.2)	497 (0.8)	30 (0.2)	511 (0.8)	25 (0.2)	507 (1.4)

Background data provided by students.

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.

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

Exhibit 6.26: Teachers' Reports on Giving a Written Quiz or Test After Students Read



Countries		or Almost y Day	Once or Tv	vice a Week	Once or Tw	ice a Month	Never or Al	most Never
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievemer
Argentina	15 (3.2)	431 (16.0)	36 (4.8)	414 (11.7)	34 (4.8)	424 (11.2)	15 (3.6)	415 (13.3)
Belize	11 (3.3)	323 (20.6)	68 (5.4)	322 (6.2)	21 (4.2)	331 (14.8)	1 (0.5)	~ ~
Bulgaria	2 (1.0)	~ ~	13 (2.4)	547 (13.3)	72 (3.5)	551 (5.1)	13 (2.6)	552 (7.3)
Canada (O,Q)	0 (0.4)	~ ~	15 (2.1)	540 (5.4)	62 (3.2)	545 (2.8)	23 (2.7)	548 (6.1)
Colombia	14 (3.5)	398 (13.2)	33 (4.6)	424 (7.8)	42 (4.8)	425 (7.2)	12 (3.0)	439 (21.0
Cyprus	1 (0.0)	~ ~	14 (3.8)	507 (6.9)	49 (5.7)	490 (4.4)	35 (4.8)	493 (4.6)
Czech Republic	0 (0.4)	~ ~	15 (3.3)	538 (6.3)	62 (4.6)	536 (3.6)	23 (3.6)	539 (4.1)
England	0 (0.0)	~ ~	5 (2.1)	551 (28.1)	45 (4.4)	553 (5.6)	50 (4.5)	556 (4.9)
France	2 (1.0)	~ ~	21 (3.3)	528 (5.8)	62 (3.8)	524 (2.9)	16 (2.8)	528 (6.3)
Germany	0 (0.0)	~ ~	3 (1.1)	548 (6.8)	50 (3.8)	537 (2.8)	47 (3.9)	541 (3.7)
Greece	0 (0.0)	~ ~	22 (4.2)	538 (7.6)	64 (4.5)	520 (4.4)	14 (3.3)	533 (10.4
Hong Kong, SAR	0 (0.0)	~ ~	11 (2.6)	514 (9.6)	55 (4.4)	526 (4.6)	34 (4.5)	538 (3.9)
Hungary	1 (0.6)	~ ~	4 (1.6)	518 (16.2)	84 (3.2)	545 (2.7)	12 (2.7)	550 (9.5)
Iceland	1 (0.0)	~ ~	3 (0.1)	474 (6.5)	30 (0.4)	501 (2.7)	67 (0.4)	518 (1.3)
Iran, Islamic Rep. of	6 (1.5)	389 (13.4)	34 (4.1)	410 (7.7)	49 (3.9)	417 (6.4)	12 (2.8)	422 (18.
Israel	2 (1.4)	~ ~	17 (3.2)	499 (10.9)	68 (3.9)	508 (4.7)	12 (2.8)	528 (11.
Italy	11 (2.3)	529 (7.9)	43 (3.1)	538 (4.6)	40 (3.3)	545 (3.1)	6 (1.7)	555 (15.8
Kuwait	12 (2.8)	388 (12.5)	39 (3.6)	403 (6.6)	32 (3.6)	400 (9.8)	17 (2.9)	397 (11.3
Latvia	1 (1.1)	~ ~	12 (3.1)	547 (9.1)	76 (4.1)	545 (2.9)	11 (2.9)	548 (5.7)
Lithuania	0 (0.0)	~ ~	12 (2.4)	532 (10.6)	69 (3.7)	544 (3.0)	19 (3.3)	549 (5.7)
Macedonia, Rep. of	3 (1.6)	432 (27.4)	14 (3.0)	428 (16.1)	66 (4.1)	447 (7.1)	16 (3.3)	445 (13.3
Moldova, Rep. of	10 (2.5)	484 (14.1)	48 (4.5)	490 (5.7)	40 (4.2)	495 (7.4)	2 (1.1)	~ ~
Morocco	1 (1.0)	~ ~	16 (3.6)	348 (13.1)	48 (5.0)	353 (13.9)	35 (4.9)	329 (16.
Netherlands	3 (1.6)	556 (10.1)	24 (3.9)	549 (5.2)	62 (4.5)	554 (3.4)	10 (2.8)	562 (5.7)
New Zealand	0 (0.0)	~ ~	4 (1.7)	498 (33.2)	20 (3.3)	532 (8.5)	76 (3.6)	530 (4.8)
Norway	0 (0.0)	~ ~	5 (1.2)	495 (6.4)	30 (3.7)	496 (5.0)	66 (4.0)	501 (3.8)
Romania	2 (1.0)	~ ~	28 (3.4)	507 (9.7)	68 (3.6)	512 (5.6)	3 (1.4)	506 (22.7
Russian Federation	2 (1.0)	~ ~	6 (1.4)	538 (7.1)	67 (2.9)	529 (6.1)	25 (2.8)	525 (4.9)
Scotland	0 (0.0)	~ ~	4 (1.8)	545 (24.5)	37 (5.2)	524 (6.3)	60 (5.3)	530 (4.4)
Singapore	2 (1.0)	~ ~	10 (2.0)	507 (15.8)	42 (3.9)	533 (8.6)	46 (3.7)	529 (7.2)
Slovak Republic	1 (0.6)	~ ~	9 (2.2)	524 (9.2)	48 (3.8)	521 (3.8)	42 (3.7)	513 (5.5)
Slovenia	1 (0.7)	~ ~	18 (3.3)	496 (5.8)	63 (4.0)	503 (2.6)	18 (3.3)	506 (5.5)
Sweden	1 (0.5)	~ ~	8 (1.7)	558 (5.9)	35 (3.7)	561 (3.9)	57 (3.6)	562 (2.8)
Turkey	2 (1.0)	~ ~	18 (3.5)	452 (10.9)	74 (3.9)	450 (4.2)	6 (1.8)	457 (14.1
United States	2 (1.1)	~ ~	49 (3.9)	538 (5.1)	40 (3.9)	551 (6.0)	9 (2.1)	529 (10.4

Background data provided by teachers.

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

What Library Resources Are Available and How Are They Used?

Since there is ample evidence that access to books and other print resources is an important support for the process of learning to read,² PIRLS asked principals if their schools had a library and if individual classrooms had classroom libraries or reading corners. As shown in Exhibit 6.27, almost all students (85%) attended schools with a school library, and the majority (65%) with large holdings - more than 500 books. Many students also had access to classroom libraries. Only five countries, Belize, Cyprus, Germany, Morocco, The Netherlands, and Turkey, had less than 70 percent of students in schools with school libraries, but Cyprus, Germany, The Netherlands, and Turkey compensated for this by having large percentages of students in schools where all or most classrooms had a library or reading corner. In some of these countries, also, students make frequent use of mobile libraries, village libraries, and documentation centers. On average, 57 percent of students were in schools where most or all classrooms had classroom libraries. These were most often reported in Cyprus, Hong Kong, New Zealand, and Scotland, in each of which more than 80 percent of students were in schools where most or all classrooms had such facilities. According to teacher reports, classroom libraries were relatively rare in Colombia, Iran, Macedonia, and Morocco.

In addition to asking principals about school and classroom libraries, PIRLS asked teachers about the situation in their own fourth-grade classroom – whether they had a classroom library or reading corner and, if so, how many books and magazines it contained, how often they gave students time to use it and whether they could borrow books from it to take home. Exhibit 6.28 shows that 69 percent of students, on average, internationally, were in classes where the teacher reported having a classroom library, and in some countries, notably Cyprus, Hong Kong, New Zealand, and the United States, almost all students (more than 95%) were in such classes.

Despite the widespread availability of classroom libraries, students were allowed to use them relatively infrequently, with 62 percent of students, on average, in classes where the teacher reported giving students time to use the classroom library no more than weekly. Highest levels of use were reported in New Zealand and the United States, where 85 percent or more

² For example, IEA's 1991 Reading Literacy Study found that countries with higher average student reading achievement had larger school libraries and especially large classroom libraries (Elley, W.B. (1992). How in the world do students read? The Hague: International Association for the Evaluation of Educational Achievement (IEA)).

of students were taught by teachers reporting daily use. Mostly, where there were classroom libraries students were allowed to borrow books to take home (82% on average). Borrowing was least often reported in The Netherlands, where only 16 percent of students were allowed to borrow from the classroom library.

Exhibit 6.28 also presents the average number of books and magazines in classroom libraries as reported by teachers. Although the data are incomplete because of low response rates in some countries, it is clear that classroom library holdings varied considerably in size across countries. Canada (O,Q), England, and the United States, with more than 200 books on average per library, were well above the international average of 60 books, while Argentina, Bulgaria, the Czech Republic, Iceland, Kuwait, and Morocco reported less than 20 books per library. Countries with the highest reported holdings of magazines in classroom libraries included Canada (O,Q), France, Latvia, and the Russian Federation.

Teachers reported that visits to the school library, for those schools that had a school library, were made by the majority of fourth-grade students (53%, on average, internationally) at least once or twice a week (see Exhibit 6.29). In Moldova, New Zealand, Slovenia, and the United States, 90 percent or more of students were in classes where teachers reported this level of library visits.

Exhibit 6.30 summarizes teachers' reports on students' overall library use, including both school and classroom libraries. On average, students were in classes where the teacher reported library use either daily (44%), or once or twice a week (40%). Students using the library less than weekly had the lowest average reading achievement.

Exhibit 6.27: Access to Libraries in School

ISC 4th Grade PIRLS 2001

		Percentag	Size of Sch	ool Libraries			
Countries	Wi	th Classrooms	Having Libra	ries	With a		More than
	All Classrooms	Most Classrooms	Some Classrooms	No Classrooms	School Library	More than 500 Books	10 Magazine Titles
Argentina	17 (3.3)	21 (3.1)	40 (4.7)	22 (4.2)	86 (3.6)	47 (4.4)	46 (5.4)
Belize	32 (3.0)	27 (7.1)	40 (7.6)	1 (0.7)	58 (3.8)	22 (4.5)	r 9 (4.5)
Bulgaria	5 (1.4)	13 (2.6)	47 (3.8)	35 (3.9)	83 (2.7)	66 (3.4)	10 (2.6)
Canada (O,Q)	46 (3.4)	41 (3.7)	11 (1.8)	2 (0.8)	96 (1.1)	91 (1.7)	23 (2.8)
Colombia	14 (3.1)	8 (2.7)	37 (5.3)	41 (4.3)	72 (4.4)	21 (3.2)	26 (4.3)
Cyprus	97 (1.3)	1 (0.1)	2 (1.3)	0 (0.0)	62 (5.5)	r 30 (5.9)	r 3 (1.9)
Czech Republic	6 (2.2)	14 (3.1)	63 (4.0)	18 (3.3)	92 (2.3)	71 (3.8)	11 (2.9)
England	71 (4.4)	20 (3.9)	9 (2.6)	1 (0.0)	91 (2.6)	84 (3.3)	4 (2.0)
France	52 (5.0)	29 (4.4)	16 (3.7)	2 (1.4)	79 (4.1)	64 (4.5)	10 (2.5)
Germany	45 (3.5)	35 (4.0)	19 (3.1)	1 (0.7)	53 (4.0)	22 (3.0)	1 (0.7)
Greece	49 (4.9)	18 (3.8)	16 (2.4)	17 (3.9)	88 (3.3)	22 (3.6)	9 (2.8)
Hong Kong, SAR	97 (1.5)	1 (0.9)	2 (1.2)	0 (0.0)	72 (4.3)	70 (4.3)	18 (3.6)
Hungary	7 (1.9)	41 (4.2)	51 (4.0)	2 (0.9)	95 (1.3)	92 (2.1)	33 (3.5)
<u> </u>	r 8 (0.3)	25 (0.4)	63 (0.4)	4 (0.1)	r 96 (0.2)	r 95 (0.2)	r 61 (0.4)
Iran, Islamic Rep. of	13 (2.8)	10 (3.2)	21 (3.8)	56 (4.8)	81 (3.0)	35 (4.5)	10 (2.9)
Israel	41 (4.4)	31 (3.7)	25 (4.1)	3 (1.5)	82 (3.5)	r 48 (4.6)	1 (0.9)
Italy	24 (3.4)	32 (3.6)	40 (3.7)	5 (1.5)	91 (2.1)	58 (3.5)	11 (2.3)
Kuwait	10 (2.6)	16 (2.5)	50 (4.0)	23 (2.9)	100 (0.0)	r 58 (3.8)	r 70 (4.0)
Latvia	15 (3.2)	33 (4.5)	42 (4.2)	10 (2.8)	99 (1.3)	96 (1.8)	40 (4.1)
Lithuania	31 (4.1)	33 (4.2)	35 (4.0)	1 (1.0)	98 (0.6)	89 (2.1)	32 (4.2)
Macedonia, Rep. of	5 (1.6)	6 (2.0)	46 (4.0)	43 (4.0)	92 (2.1)	84 (2.8)	4 (1.7)
Moldova, Rep. of	13 (2.6)	17 (3.6)	54 (4.6)	15 (3.1)	100 (0.4)	81 (3.5)	12 (2.8)
Morocco	7 (3.0)	12 (3.4)	33 (4.8)	48 (5.1)	21 (3.4)	0 (0.0)	8 (2.0)
Netherlands	69 (4.7)	17 (3.4)	11 (3.4)	2 (1.4)	63 (4.9)	r 34 (4.7)	1 (0.0)
New Zealand	83 (3.2)	16 (3.2)	1 (0.6)	0 (0.0)	99 (0.4)	97 (1.4)	15 (2.9)
Norway	12 (3.0)	27 (4.0)	58 (4.5)	2 (1.5)	98 (1.1)	85 (3.5)	9 (2.5)
Romania	5 (2.0)	10 (2.9)	62 (4.0)	23 (2.9)	96 (1.1)	92 (2.1)	9 (2.8)
Russian Federation						` '	
	58 (3.1)	24 (2.9)	18 (2.3)	1 (0.6)	95 (1.4)	88 (1.7)	30 (3.0)
Scotland	81 (4.1)	13 (3.5)	4 (1.8)	1 (1.1)	84 (4.3)	66 (5.0)	4 (2.1)
Singapore	48 (3.8)	34 (3.5)	19 (3.2)	0 (0.0)	100 (0.2)	99 (0.6)	33 (3.7)
Slovak Republic	4 (1.7)	19 (3.4)	45 (4.1)	32 (3.9)	95 (1.7)	74 (3.3)	12 (2.8)
Slovenia	3 (1.1)	21 (3.5)	70 (3.8)	6 (2.1)	100 (0.0)	100 (0.0)	83 (2.9)
Sweden	21 (3.5)	37 (4.4)	36 (4.7)	6 (2.2)	89 (2.7)	76 (3.9)	11 (3.2)
Turkey	57 (4.3)	29 (4.1)	7 (2.2)	7 (2.3)	63 (3.6)	31 (4.0)	2 (1.0)
United States	64 (4.1)	28 (3.6)	8 (1.5)	0 (0.0)	99 (0.8)	97 (1.5)	55 (4.0)

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

Exhibit 6.28: Students' Use of Classroom Libraries



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

	Pe	rcentage of Stu	dents Whose Te	achers Report	ed	Size of Classi	room Librarie
Countries	Having a Library or	Teachers Le	t Students Use	the Library	If "Yes", Students	Average	Average Number o
	Reading Corner in Classroom	Daily	Weekly	Less than Weekly	Can Borrow Books	Number of Books	Magazne Titles
Argentina	54 (5.0)	18 (3.4)	31 (4.5)	51 (5.2)	89 (3.8)	14 (2.8)	6 (1.4)
Belize	90 (3.3)	67 (4.8)	18 (4.0)	15 (4.0)	r 68 (4.9)	37 (4.0)	s 8 (1.1)
Bulgaria	34 (3.8)	23 (3.6)	8 (1.9)	69 (3.7)	89 (4.3)	8 (2.0)	2 (0.5)
Canada (O,Q)	88 (2.6)	64 (3.4)	20 (2.4)	16 (2.8)	89 (2.3)	250 (50.8)	15 (2.0)
Colombia	44 (4.6)	22 (3.7)	13 (3.2)	65 (4.6)	54 (6.0)	26 (5.3)	r 9 (2.6)
Cyprus	98 (1.0)	9 (2.2)	76 (4.1)	15 (3.7)	98 (1.6)	53 (2.9)	3 (0.6)
Czech Republic	57 (4.2)	35 (4.2)	15 (3.3)	50 (4.2)	66 (6.2)	17 (2.4)	2 (0.6)
England	82 (3.5)	57 (4.7)	21 (3.7)	22 (3.8)	87 (3.3)	211 (37.6)	r 4 (1.5
France	92 (2.3)	54 (4.0)	30 (3.6)	16 (3.0)	85 (2.8)	r 84 (6.5)	r 14 (1.7)
Germany	82 (2.1)	37 (2.6)	29 (2.7)	35 (2.8)	89 (2.0)	51 (3.9)	5 (1.0)
Greece	61 (4.1)	17 (3.8)	22 (3.5)	61 (4.3)	97 (1.7)	36 (4.9)	4 (2.3
Hong Kong, SAR	96 (2.5)	15 (3.1)	45 (4.4)	41 (4.7)	99 (0.9)	s 167 (15.8)	r 5 (1.3
Hungary	64 (3.2)	48 (4.0)	6 (2.0)	46 (4.0)	82 (3.8)	24 (2.5)	2 (0.5
Iceland	46 (0.4)	22 (0.3)	21 (0.3)	57 (0.4)	r 68 (0.6)	16 (0.2)	1 (0.0
Iran, Islamic Rep. of	32 (3.9)	4 (1.5)	19 (3.5)	77 (3.6)	97 (2.2)	24 (5.2)	r 3 (0.7
Israel	78 (3.7)	56 (4.3)	17 (2.7)	26 (4.0)	80 (3.4)	r 28 (2.8)	s 6 (1.2
Italy	76 (2.8)	18 (2.5)	25 (3.2)	57 (3.5)	96 (1.7)	45 (5.3)	s 7 (1.8
Kuwait	40 (3.5)	3 (1.0)	23 (3.1)	74 (3.3)	s 81 (5.6)	r 6 (1.0)	r 4 (0.7
Latvia	67 (4.5)	53 (4.6)	6 (1.8)	41 (4.3)	82 (4.8)	61 (9.5)	r 11 (2.3
Lithuania	82 (3.5)	48 (4.5)	19 (3.3)	33 (4.3)	95 (2.1)	45 (4.4)	5 (0.7
Macedonia, Rep. of	45 (3.6)	13 (3.0)	15 (3.1)	72 (3.4)	87 (3.8)	r 21 (4.8)	r 2 (1.1
Moldova, Rep. of	68 (3.8)	42 (4.9)	20 (3.7)	38 (4.3)	94 (2.7)	40 (6.4)	7 (1.6
Morocco	54 (5.4)	9 (2.7)	32 (5.1)	59 (5.2)	r 87 (4.7)	13 (1.7)	6 (0.9
Netherlands	84 (3.5)	58 (4.5)	23 (3.7)	19 (3.8)	r 16 (3.8)	r 86 (8.4)	r 3 (0.7
New Zealand	96 (1.6)	86 (3.0)	8 (2.5)	6 (1.9)	65 (4.4)	63 (4.9)	8 (1.4
Norway	54 (4.5)	15 (3.2)	33 (4.3)	52 (4.5)	79 (5.0)	33 (5.8)	4 (0.9
Romania	49 (4.2)	22 (3.6)	20 (2.8)	58 (4.2)	91 (3.5)	24 (6.4)	4 (0.7
Russian Federation	84 (2.5)	64 (3.6)	12 (2.1)	24 (3.1)	94 (2.9)	77 (4.9)	12 (1.4
Scotland	91 (2.5)	57 (4.9)	29 (4.1)	13 (3.4)	74 (4.5)	104 (8.2)	3 (0.5
Singapore	77 (3.4)	45 (3.5)	25 (3.4)	30 (3.6)	79 (3.7)	51 (3.4)	3 (0.5
Slovak Republic	64 (4.0)	21 (3.3)	23 (3.4)	56 (4.2)	82 (4.1)	25 (4.2)	3 (0.5
Slovenia	66 (4.3)	45 (4.4)	16 (3.3)	39 (4.5)	73 (4.8)	21 (2.0)	3 (0.4
Sweden	47 (2.9)	33 (3.0)	11 (2.0)	56 (2.7)	83 (3.5)	49 (5.5)	r 2 (0.4
Turkey	93 (2.2)	44 (4.4)	45 (4.4)	11 (2.5)	100 (0.0)	71 (3.5)	s 9 (1.3
United States	96 (1.3)	85 (3.3)	9 (1.9)	7 (2.7)	91 (2.5)	219 (20.5)	9 (1.1

Background data provided by teachers.

students.

⁽⁾ 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 50-69% of the students. An "x" indicates data are available for less than 50% of the

Exhibit 6.29: Frequency of Students' School Library Visits



	=1. 6.1.		Library	Visits	
Countries	This School Does Not Have a Library	Every Day or Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Almost Neve
Argentina	15 (3.7)	16 (3.6)	41 (5.2)	16 (3.8)	12 (3.3)
Belize r	49 (5.0)	7 (2.2)	15 (3.8)	13 (3.0)	16 (4.6)
Bulgaria	13 (2.6)	13 (2.7)	41 (3.7)	33 (4.1)	0 (0.0)
Canada (O,Q)	3 (1.0)	4 (1.5)	81 (3.0)	11 (2.5)	0 (0.3)
Colombia	25 (4.3)	15 (3.3)	21 (3.6)	25 (4.2)	15 (2.9)
Cyprus	68 (4.2)	0 (0.3)	10 (3.0)	10 (3.3)	12 (3.3)
Czech Republic	7 (2.5)	3 (1.7)	30 (3.4)	47 (4.1)	13 (2.8)
England	7 (2.5)	10 (3.1)	50 (5.2)	26 (4.4)	7 (2.1)
France	19 (3.7)	6 (2.1)	51 (4.3)	16 (3.1)	7 (2.5)
Germany	53 (3.4)	1 (0.6)	19 (2.5)	16 (2.2)	11 (2.3)
Greece	22 (3.1)	4 (1.4)	36 (4.1)	29 (4.4)	9 (2.5)
Hong Kong, SAR	23 (3.9)	6 (2.1)	33 (4.8)	24 (4.3)	14 (2.8)
Hungary	3 (1.4)	11 (2.8)	47 (4.1)	38 (3.8)	1 (0.5)
Iceland	2 (0.1)	27 (0.3)	56 (0.4)	14 (0.3)	0 (0.1)
Iran, Islamic Rep. of	25 (3.5)	3 (1.2)	42 (4.7)	21 (2.6)	9 (2.4)
Israel r	11 (3.0)	8 (2.8)	52 (4.9)	17 (3.4)	11 (2.8)
Italy	20 (3.0)	4 (1.6)	12 (2.8)	33 (3.5)	30 (3.3)
Kuwait	2 (1.3)	1 (0.5)	60 (3.1)	36 (3.2)	2 (0.7)
Latvia	0 (0.0)	13 (3.1)	51 (4.7)	33 (4.4)	3 (1.4)
Lithuania	2 (1.1)	17 (3.1)	56 (4.2)	24 (3.6)	2 (1.3)
Macedonia, Rep. of	12 (2.6)	9 (2.5)	36 (4.1)	42 (4.5)	1 (0.7)
Moldova, Rep. of	9 (3.2)	34 (4.0)	48 (4.6)	6 (2.1)	2 (1.0)
Morocco r	73 (4.3)	0 (0.0)	11 (2.9)	8 (3.0)	8 (2.2)
Netherlands r	30 (4.6)	11 (3.0)	31 (4.5)	17 (3.7)	11 (2.4)
New Zealand	0 (0.1)	2 (1.2)	94 (2.2)	4 (1.9)	0 (0.2)
Norway	2 (0.9)	6 (2.0)	48 (4.5)	38 (4.5)	6 (1.9)
Romania	3 (1.1)	14 (3.0)	54 (4.2)	27 (3.9)	3 (1.5)
Russian Federation	5 (1.5)	17 (2.9)	57 (3.6)	21 (3.9)	1 (0.6)
Scotland	15 (3.4)	1 (1.0)	52 (4.6)	21 (4.0)	11 (3.1)
Singapore	3 (1.5)	3 (1.5)	49 (4.5)	31 (4.0)	14 (2.9)
Slovak Republic	6 (1.9)	4 (1.7)	21 (3.3)	63 (3.9)	5 (1.8)
Slovenia	0 (0.1)	45 (4.6)	46 (4.4)	8 (2.4)	1 (0.0)
Sweden	4 (1.5)	23 (3.1)	48 (3.6)	22 (2.8)	3 (1.1)
Turkey	33 (4.1)	7 (2.3)	28 (3.5)	24 (4.2)	8 (2.5)
United States	1 (0.9)	8 (2.2)	82 (3.3)	7 (2.0)	2 (0.6)

Background data provided by teachers.

students.

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

A dash (–) indicates data are not available. A tilde (\sim) indicates insufficient data to report achievement.

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

Exhibit 6.30: Students' Overall Library Use in School*



Countries	Da	aily	Once or Tv	vice a Week	Less tha	n Weekly
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievemen
Argentina	31 (4.3)	408 (9.9)	51 (4.3)	419 (8.9)	18 (4.2)	452 (14.5)
Belize r	72 (4.2)	332 (7.2)	22 (3.9)	306 (14.7)	6 (2.7)	322 (20.5)
Bulgaria	32 (3.8)	559 (7.7)	38 (3.4)	551 (4.9)	31 (3.9)	549 (10.3)
Canada (O,Q)	64 (3.4)	544 (3.0)	32 (3.2)	546 (4.0)	4 (1.8)	539 (7.0)
Colombia r	35 (4.6)	411 (8.3)	36 (4.6)	443 (6.8)	29 (4.8)	437 (11.3)
Cyprus	10 (2.4)	494 (8.0)	84 (3.4)	494 (3.6)	6 (2.7)	479 (10.5)
Czech Republic	36 (4.4)	545 (3.8)	30 (4.1)	533 (6.1)	34 (4.5)	533 (3.1)
England	60 (4.5)	554 (4.3)	34 (4.3)	552 (7.0)	6 (2.3)	568 (11.6)
France	55 (3.9)	527 (3.0)	40 (3.9)	523 (4.6)	5 (1.5)	523 (6.6)
Germany r	45 (3.1)	541 (3.5)	41 (3.3)	537 (3.0)	13 (2.3)	542 (3.9)
Greece r	20 (4.3)	534 (10.8)	50 (4.9)	531 (6.4)	30 (5.1)	517 (6.5)
Hong Kong, SAR r	20 (3.9)	537 (6.5)	58 (5.1)	526 (4.4)	21 (4.1)	524 (8.7)
Hungary	52 (4.3)	550 (3.3)	26 (3.8)	545 (5.8)	22 (3.4)	531 (5.5)
Iceland	40 (0.4)	514 (1.9)	52 (0.4)	511 (1.7)	8 (0.2)	514 (5.1)
Iran, Islamic Rep. of r	8 (2.4)	441 (18.5)	64 (4.4)	425 (7.6)	28 (3.8)	421 (12.1)
Israel	59 (4.0)	528 (4.5)	31 (4.1)	488 (9.5)	10 (2.5)	448 (24.3)
Italy	21 (2.9)	543 (4.7)	33 (3.6)	540 (5.1)	45 (3.7)	541 (4.5)
Kuwait	3 (1.2)	402 (16.4)	66 (3.3)	404 (5.6)	31 (3.3)	397 (6.2)
Latvia	54 (4.4)	547 (3.8)	28 (4.1)	537 (4.9)	19 (2.8)	550 (5.4)
Lithuania	50 (4.3)	540 (3.8)	36 (4.1)	542 (4.7)	14 (3.1)	557 (7.3)
Macedonia, Rep. of r	21 (3.4)	494 (10.0)	42 (4.7)	461 (7.9)	37 (4.6)	428 (9.4)
Moldova, Rep. of	61 (4.7)	497 (5.8)	37 (4.7)	486 (6.6)	2 (1.2)	~ ~
Morocco	хх	хх	хх	хх	хх	хх
Netherlands	61 (4.7)	551 (3.7)	34 (4.4)	559 (3.4)	5 (1.7)	562 (9.9)
New Zealand	86 (2.9)	527 (4.3)	12 (2.8)	543 (11.3)	1 (0.8)	~ ~
Norway	18 (3.5)	501 (6.8)	62 (4.1)	498 (3.9)	20 (3.3)	504 (6.7)
Romania	30 (4.3)	511 (9.6)	52 (4.3)	516 (6.3)	18 (3.5)	508 (12.6)
Russian Federation	68 (3.7)	531 (3.9)	26 (3.7)	520 (9.6)	6 (1.9)	528 (13.5)
Scotland	57 (4.9)	525 (5.4)	39 (4.7)	534 (5.7)	3 (2.0)	526 (9.6)
Singapore	47 (3.5)	528 (7.6)	43 (3.6)	533 (10.2)	10 (2.0)	504 (14.1)
Slovak Republic	25 (3.4)	518 (5.7)	35 (3.5)	521 (4.5)	39 (3.8)	516 (5.8)
Slovenia	66 (4.3)	502 (2.8)	30 (4.0)	502 (3.4)	4 (1.8)	499 (14.1)
Sweden	49 (3.5)	563 (3.5)	37 (3.4)	558 (3.2)	13 (2.6)	564 (5.5)
Turkey	48 (4.8)	461 (6.1)	49 (4.6)	445 (6.3)	3 (1.3)	443 (7.9)
United States	86 (2.7)	544 (4.3)	13 (2.5)	535 (8.5)	1 (0.6)	~ ~
International Avg.	44 (0.7)	509 (1.2)	40 (0.7)	505 (1.1)	16 (0.5)	501 (2.0)

^{*}Based on teachers' responses to two questions: How often do you take or send the students to the school library? How often do you give the students in your class time to use the classroom library or reading corner? Daily indicates students used either a classroom library (or reading corner) or school library every day or almost every day. Once or twice a week indicates students

used either a classroom library (or reading corner) or school library once or twice a week. Less than weekly indicates students used both a classroom library (or reading corner) and a school library once or twice a month or never.

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

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

How Are Computers Used for Reading Instruction?

To explore the use of information technology in teaching reading, PIRLS asked teachers and students about the availability of computers and how they were used. According to their teachers, half the fourth-grade students across all countries had access to computers, but computer availability varied dramatically from country to country, as shown in Exhibit 6.31. Whereas almost all students (more than 90%) in Canada (O,Q), England, Iceland, The Netherlands, New Zealand, Scotland, Singapore, Sweden, and the United States had computers available in the classroom or elsewhere in the school, the large majority (more than 80%) in Belize, Bulgaria, Colombia, Greece, Iran, Kuwait, Macedonia, Moldova, the Russian Federation, the Slovak Republic, and Turkey had no access to computers. Among students with access, less than one-third (29%) were in classes with a computer in the classroom, and less than half (45%) had computers available somewhere else in the school. Classroom computers were most common in Canada (O,Q), England, The Netherlands, New Zealand, Scotland, Sweden, and the United States.

Internet access for classes with computers available also varied considerably. Countries with high levels of computer availability and high levels of Internet access included Canada (O,Q), Iceland, New Zealand, Sweden, and the United States, where almost all students had access to computers with Internet connections, according to their teachers.

Exhibit 6.31 also presents teachers' reports of students' use of the computer for developing reading skills and strategies, reading stories, and writing stories. On average, less than one-third (32%) of students in classes with access to computers used them for writing stories or other texts at least once a month. Among countries with high levels of computer availability, use of the computer for writing was most common in England and New Zealand, where more than 90 percent of students were in classes where this occurred at least monthly, but Canada (O,Q), Iceland, Scotland, Sweden, and the United States also had high percentages of students in this category. Teachers generally reported less frequently asking students to use the computer for reading stories or developing reading skills and strategies – these activities were most common in Canada (O,Q), New Zealand, Singapore, and the United States.

On average, across countries, 70 percent of students reported that they had used a computer at some time, and in about one-third of the countries this applied to almost all students (more than 90%). Computer use was more frequent at home than in school, on average, but relatively high use both at home and school was reported in Canada (O,Q), England, Hong Kong, Scotland, and the United States (Exhibit 6.32).

Exhibit 6.31: Computer Availability and Instructional Use



Argentina 70 (4.0) 4 (1.9) 26 (3.6) 10 (2.4) 10 (2.5) 75 (1.7) 6 (3.6) 74 (1.6) 8 (1.6) 70 (1		Percenta	ge o	f Students \	Nho	ose Teachers	Rep	orted	F	Repor	of Students Wh ted Instruction at Least Monthl	al U	
Argentina 70 (4.0) 4 (1.9) 26 (3.6) 10 (2.4) 10 (2.5) 11 (2.3) 19 (Belize r 95 (1.9) r 2 (0.9) r 2 (1.0) r 1 (1.3) r 1 (0.6) r 0 (0.3) r 1 (Bulgaria 81 (3.1) 0 (0.0) 18 (3.0) 7 (2.1) 3 (1.4) 6 (2.0) 5 (Canada (O,Q) 3 (1.0) 81 (2.6) 92 (1.8) 93 (1.6) 42 (2.7) 60 (3.0) 74 (Colombia 89 (2.5) 1 (0.5) 8 (2.1) 4 (1.6) 5 (1.7) 5 (1.7) 6 (Cyprus 70 (4.4) 6 (2.8) 28 (4.5) 28 (4.4) 10 (3.4) 16 (3.6) 24 (Czech Republic 38 (3.8) r 11 (2.8) 59 (4.0) 43 (4.4) 16 (3.3) 13 (2.8) 10 (Errance 17 (3.6) r 41 (4.7) r 76 (4.3) 51 (4.8) 29 (3.8) 30 (3.9) 62 (Germany 39 (3.0) 45 (3.9) r 45 (3.5) 28 (3.0) 32 (3.3) 25 (2.9) 35 (Greece 82 (3.3) 0 (0.0) 17 (3.3) 9 (1.7) 6 (2.8) 8 (3.0) 7 (Hong Kong, SAR 21 (4.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Itungary 61 (4.7) 3 (1.5) 36 (4.6) 26 (3.8) 4 (1.6) 4 (1.4) 10 (Iteland 8 (0.2) 63 (0.4) 80 (0.2) 87 (0.3) 35 (3.0) 44 (0.4) 10 (Italy 37 (3.2) r 5 (1.8) 60 (3.1) 37 (3.8) 19 (2.9) 19 (2.9) 36 (Italy 37 (3.2) r 5 (1.8) 60 (3.1) 37 (3.8) 19 (2.9) 19 (2.9) 36 (Italy 37 (3.2) r 5 (1.8) 60 (3.1) 37 (3.8) 19 (2.9) 19 (2.9) 36 (Macedonia, Rep. of 86 (3.8) r 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Macedonia, Rep. of 86 (3.8) r 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Morocco 76 (4.6) r 1 (0.8) r 5 (2.2) r 1 (0.0) r 0 (0.4) r 2 (1.4) 25 (3.9) 50 (Morocco 76 (4.6) r 1 (0.8) r 5 (2.2) r 1 (0.0) r 0 (0.4) r 2 (1.4) 10 (Netherlands 74 (4.0) r 1 (0.0) 17 (3.4) 8 (3.2) 11 (0.7) 2 (1.0) 4 (1.4) 4 (4.0) 10 (Netherlands 74 (4.0) r 1 (0.0) 17 (3.4) 8 (3.2) 11 (0.7) 2 (1.0) 4 (1.4) 4 (4.0) 10 (Netherlands 74 (4.0) r 1 (0.0) 17 (3.4) 56 (4.0) 49 (4.0) 49 (4.9) 58 (5.0) 80 (5004 Republic 84 (3.0) 0 (0.0) 15 (2.9) 56 (4.0) 49 (4.9) 58 (5.0) 80 (5004 Republic 84 (3.0) 0 (0.0) 15 (2.9) 56 (4.0) 49 (4.9) 58 (5.0) 80 (5004 Republic 84 (3.0) 0 (0.0) 15 (2.9) 56 (4.0) 49 (4.9) 58 (5.0) 80 (5004 Republic 84 (3.0) 0 (0.0) 15 (2.9) 56 (4.0) 64 (3.9) 28 (3.7) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8)	Countries			C	omp	outers Availak	ole		In So	structional oftware to Develop	Read Stories or Other Texts on	Sto T	udents Writ ries or Oth exts on the
Belize r 95 (1.9) r 2 (0.9) r 2 (1.0) r 1 (1.3) r 1 (0.6) r 0 (0.3) r 1 (1 (1.3) r 1 (0.6) r 0 (0.3) r 1 (1 (1.3) r 1 (0.6) r 0 (0.3) r 1 (1 (1.3) r 1 (0.6) r 0 (0.3) r 1 (1 (1.3) r 1 (0.6) r 0 (0.3) r 1 (1 (1.3) r 1 (0.6) r 0 (0.3) r 1 (1 (1.3) r 1 (0.6) r 0 (0.3) r 1 (1 (1.3) r 1 (0.6) r 0 (0.3) r 1 (1 (1.3) r 1 (0.6) r 0 (0.3) r 1 (1 (1.3) r 1 (1.3) r 1 (0.6) r			ln	Classroom							the Computer		Computer
Bulgaria 81 (3.1) 0 (0.0) 18 (3.0) 7 (2.1) 3 (1.4) 6 (2.0) 5 (Canada (O,Q) 3 (1.0) 81 (2.6) 92 (1.8) 93 (1.6) 42 (2.7) 60 (3.0) 74 (Colombia 89 (2.5) 1 (0.5) 8 (2.1) 4 (1.6) 5 (1.7) 5 (1.7) 6 (Cyprus 70 (4.4) 6 (2.8) 28 (4.5) 28 (4.4) 10 (3.4) 13 (2.8) 13 (2.8) 10 (Cyprus 70 (4.4) 6 (2.8) 28 (4.5) 28 (4.4) 10 (3.4) 13 (2.8) 10 (England 1 (1.2) r 88 (3.2) 95 (2.1) 86 (3.3) 55 (4.7) 56 (4.8) 93 (France 17 (3.6) r 41 (4.7) r 76 (4.3) 51 (4.8) 29 (3.8) 30 (3.9) 62 (Germany 39 (3.0) 45 (3.9) r 45 (3.5) 28 (3.0) 32 (3.3) 25 (2.9) 35 (Greece 82 (3.3) 0 (0.0) 17 (3.3) 9 (1.7) 6 (2.8) 8 (3.0) 37 (4.4) 10 (3.4) 11 (4.4) 10 (Hungary 61 (4.7) 3 (1.5) 36 (4.6) 26 (3.8) 4 (1.6) 4 (1.4) 10 (Iceland 8 (0.2) 63 (0.4) 90 (0.2) 87 (0.3) 53 (0.3) 44 (0.4) 73 (Iran, Islamic Rep. of 99 (0.7) 0 (0.5) 1 (0.5) 0 (0.0) 0 (0.1) 0 (0.1) 0 (1.1)	Argentina	70 (4.0)		4 (1.9)		26 (3.6)		10 (2.4)		10 (2.5)	11 (2.3)		19 (3.3)
Canada (O,Q) 3 (1.0) 81 (2.6) 92 (1.8) 93 (1.6) 42 (2.7) 60 (3.0) 74 (Colombia 89 (2.5) 1 (0.5) 8 (2.1) 4 (1.6) 5 (1.7) 5 (1.7) 6 (Cyprus 70 (4.4) 6 (2.8) 28 (4.5) 28 (4.4) 10 (3.4) 16 (3.6) 24 (Czech Republic 38 (3.8) r 11 (2.8) 59 (4.0) 43 (4.4) 16 (3.3) 13 (2.8) 10 (Despite 10 (1.2) r 88 (3.2) 95 (2.1) 86 (3.3) 55 (4.7) 56 (4.8) 93 (Despite 10 (1.2) r 88 (3.2) 95 (2.1) 86 (3.3) 55 (4.7) 56 (4.8) 93 (Despite 10 (1.2) r 88 (3.2) 95 (2.1) 86 (3.3) 55 (4.7) 56 (4.8) 93 (Despite 10 (1.2) r 76 (4.3) 51 (4.8) 29 (3.8) 30 (3.9) 62 (Despite 10 (1.2) r 84 (3.2) r 45 (3.5) 28 (3.0) 32 (3.3) 25 (2.9) 35 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Despite 10 (1.2) 72 (3.9) 41 (3.6) 33 (3.8) 25 (4.0) 31 (4.1) 7 (Despite 10 (1.2) 72 (3.9) 41 (3.6) 33 (3.8) 25 (4.0) 31 (4.1) 7 (Despite 10 (1.2) 72 (3.9) 41 (3.6) 33 (3.8) 25 (4.0) 31 (4.2) 45 (Despite 10 (1.2) 73 (3.2) 73 (3.8) 19 (2.9) 19 (2.9) 36 (Despite 10 (1.2) 73 (3.2) 73 (3.8) 19 (2.9) 19 (2.9) 36 (Despite 10 (1.2) 73 (3.2) 73 (3.8) 19 (2.9) 19 (2.9) 36 (Desp	Belize	r 95 (1.9)	r	2 (0.9)	r	2 (1.0)	r	1 (1.3)	r	1 (0.6)	r 0 (0.3)	r	1 (0.4)
Colombia 89 (2.5) 1 (0.5) 8 (2.1) 4 (1.6) 5 (1.7) 5 (1.7) 6 (Cyprus 70 (4.4) 6 (2.8) 28 (4.5) 28 (4.4) 10 (3.4) 16 (3.6) 24 (Czech Republic 38 (3.8) r 11 (2.8) 59 (4.0) 43 (4.4) 16 (3.3) 13 (2.8) 10 (England 1 (1.2) r 88 (3.2) 59 (2.1) 86 (3.3) 55 (4.7) 56 (4.8) 93 (France 17 (3.6) r 41 (4.7) r 76 (4.3) 51 (4.8) 29 (3.8) 30 (3.9) 62 (Germany 39 (3.0) 45 (3.9) r 45 (3.5) 28 (3.0) 32 (3.3) 25 (2.9) 35 (Greece 82 (3.3) 0 (0.0) 17 (3.3) 9 (1.7) 6 (2.8) 8 (3.0) 7 (Hong Kong, SAR 21 (4.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Hungary 61 (4.7) 3 (1.5) 36 (4.6) 26 (3.8) 4 (1.6) 4 (1.4) 10 (Iceland 8 (0.2) 63 (0.4) 90 (0.2) 87 (0.3) 53 (0.3) 44 (0.4) 73 (Iran, Islamic Rep. of 99 (0.7) 0 (0.5) 1 (0.5) 0 (0.0) 0 (0.1) 0 (0.1) 0 (0.1) Israel 51 (3.4) r 27 (3.9) 41 (3.6) 33 (3.8) 25 (4.0) 31 (4.7) 45 (6.1) Icalva 96 (2.0) 0 (0.0) 3 (1.7) 0 (0.0) 4 (1.9) 4 (1.9) 36 (Kuwait 96 (2.0) 0 (0.0) 3 (1.7) 0 (0.0) 4 (1.9) 4 (1.9) 36 (Kuwait 96 (3.7) 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Macedonia, Rep. of 85 (3.2) 2 (1.3) 6 (2.0) 2 (1.1) 5 (1.7) 5 (1.7) 5 (1.7) 3 (Moldova, Rep. of 86 (2.8) r 1 (0.0) r 5 (2.4) r 0 (0.0) 1 (0.0) 1 (1.0) 1 (0.0) Nertherlands 3 (2.0) r 90 (2.8) s 92 (3.2) 27 (4.6) 29 (4.1) 25 (3.9) 50 (Norway 14 (3.2) 58 (4.1) 83 (3.2) 71 (4.4) 47 (3.9) 27 (3.9) 50 (0.0) 9 (2.3) 1 (4.4) 47 (3.9) 27 (3.9) 50 (0.0) 1 (0.0)	Bulgaria	81 (3.1)		0 (0.0)		18 (3.0)		7 (2.1)		3 (1.4)	6 (2.0)		5 (1.8)
Cyprus 70 (4.4) 6 (2.8) 28 (4.5) 28 (4.4) 10 (3.4) 16 (3.6) 24 (2.6) Czech Republic 38 (3.8) r 11 (2.8) 59 (4.0) 43 (4.4) 16 (3.3) 13 (2.8) 10 (2.8) England 1 (1.2) r 88 (3.2) 95 (2.1) 86 (3.3) 55 (4.7) 56 (4.8) 93 (8.8) France 17 (3.6) r 41 (4.7) r 76 (4.3) 51 (4.8) 29 (3.8) 30 (3.9) 62 (3.6) Germany 39 (3.0) 45 (3.9) r 45 (3.5) 28 (3.0) 32 (3.3) 25 (2.9) 35 (2.9) Greece 82 (3.3) 0 (0.0) 17 (3.3) 9 (1.7) 6 (2.8) 8 (3.0) 7 (Hong Kong, SAR 21 (4.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Hungary 61 (4.7) 3 (1.5) 36 (4.6) 26 (3.8) 4 (1.6) 4 (1.4) 10 (Icalization 8 (0.2) 63 (0.4) 90 (0.2) 87 (0.3	Canada (O,Q)	3 (1.0)		81 (2.6)		92 (1.8)		93 (1.6)		42 (2.7)	60 (3.0)		74 (3.1)
Czech Republic 38 (3.8) r 11 (2.8) 59 (4.0) 43 (4.4) 16 (3.3) 13 (2.8) 10 (10 cm) England 1 (1.2) r 88 (3.2) 95 (2.1) 86 (3.3) 55 (4.7) 56 (4.8) 93 (8) France 17 (3.6) r 41 (4.7) r 76 (4.3) 51 (4.8) 29 (3.8) 30 (3.9) 62 (6) Germany 39 (3.0) 45 (3.9) r 45 (3.5) 28 (3.0) 32 (3.3) 25 (2.9) 35 (6) Greece 82 (3.3) 0 (0.0) 17 (3.3) 9 (1.7) 6 (2.8) 8 (3.0) 7 (7) Hong Kong, SAR 21 (4.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (6) Hungary 61 (4.7) 3 (1.5) 36 (4.6) 26 (3.8) 4 (1.6) 4 (1.4) 10 (1.6) Iceland 8 (0.2) 63 (0.4) 90 (0.2) 87 (0.3) 53 (0.3) 44 (0.4) 73 (1.7) Iran, Islamic Rep. of 99 (0.7) 0 (0.5) 1 (0.5)	Colombia	89 (2.5)		1 (0.5)		8 (2.1)		4 (1.6)		5 (1.7)	5 (1.7)		6 (1.9)
England 1 (1.2) r 88 (3.2) 95 (2.1) 86 (3.3) 55 (4.7) 56 (4.8) 93 (6 France 17 (3.6) r 41 (4.7) r 76 (4.3) 51 (4.8) 29 (3.8) 30 (3.9) 62 (6 Germany 39 (3.0) 45 (3.9) r 45 (3.5) 28 (3.0) 32 (3.3) 25 (2.9) 35 (6 Greec 82 (3.3) 0 (0.0) 17 (3.3) 9 (1.7) 6 (2.8) 8 (3.0) 7 (10 Hong Kong, SAR 21 (4.2) r 31 (4.5) 36 (4.6) 26 (3.8) 4 (1.6) 4 (1.4) 10 (10 (10 (10 (10 (10 (10 (10 (10 (10	Cyprus	70 (4.4)		6 (2.8)		28 (4.5)		28 (4.4)		10 (3.4)	16 (3.6)		24 (4.3)
France 17 (3.6) r 41 (4.7) r 76 (4.3) 51 (4.8) 29 (3.8) 30 (3.9) 62 (Germany 39 (3.0) 45 (3.9) r 45 (3.5) 28 (3.0) 32 (3.3) 25 (2.9) 35 (Greece 82 (3.3) 0 (0.0) 17 (3.3) 9 (1.7) 6 (2.8) 8 (3.0) 7 (Hong Kong, SAR 21 (4.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Hungary 61 (4.7) 3 (1.5) 36 (4.6) 26 (3.8) 4 (1.6) 4 (1.4) 10 (Iceland 8 (0.2) 63 (0.4) 90 (0.2) 87 (0.3) 53 (0.3) 44 (0.4) 73 (Iran, Islamic Rep. of 99 (0.7) 0 (0.5) 1 (0.5) 0 (0.0) 0 (0.1) 0 (0.1) 0 (0.1) Israel 51 (3.4) r 27 (3.9) 41 (3.6) 33 (3.8) 25 (4.0) 31 (4.2) 45 (Kuwait 96 (2.0) 0 (0.0) 3 (1.7) 0 (0.0) 4 (1.9) 4 (1.9) 3 (Latvia 63 (3.8) r 2 (1.4) 34 (3.9) 26 (3.5) 5 (1.8) 8 (2.3) 17 (Lithuania 76 (3.7) 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Macedonia, Rep. of 85 (3.2) 2 (1.3) 6 (2.0) 2 (1.1) 5 (1.7) 5 (1.7) 3 (Moldova, Rep. of r 86 (2.8) r 1 (0.0) r 5 (2.4) r 0 (0.0) r 0 (0.4) r 2 (1.4) r 0 (Morocco 76 (4.6) r 1 (0.8) r 5 (2.2) r 1 (0.0) 1 (1.0) 1 (1.0) 1 (1.0) Netherlands 3 (2.0) r 90 (2.8) s 92 (3.2) 47 (4.6) 29 (4.1) 25 (3.9) 50 (Norway 14 (3.2) 58 (4.1) r 85 (3.8) 91 (2.7) 44 (4.5) 60 (4.6) 96 (Norway 14 (3.2) 58 (4.1) r 85 (3.8) 91 (2.7) 44 (4.5) 60 (4.6) 96 (Norway 14 (3.2) 56 (4.2) 88 (2.7) 78 (2.9) 56 (4.1) 67 (3.4) 55 (Slovak Republic 84 (3.0) 0 (0.0) 15 (2.9) 5 (1.8) 1 (0.5) 3 (1.5) 3 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 33 (3.8) 32 (3.8) 7 (2.2) 66 (4.0) 64 (3.9) 28 (3.7) 33 (3.8) 33 (3.8) 33 (3.8)	Czech Republic	38 (3.8)	r	11 (2.8)		59 (4.0)		43 (4.4)		16 (3.3)	13 (2.8)		10 (2.9)
Germany 39 (3.0) 45 (3.9) r 45 (3.5) 28 (3.0) 32 (3.3) 25 (2.9) 35 (Greece 82 (3.3) 0 (0.0) 17 (3.3) 9 (1.7) 6 (2.8) 8 (3.0) 7 (1.0) Hong Kong, SAR 21 (4.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (2.6) Hungary 61 (4.7) 3 (1.5) 36 (4.6) 26 (3.8) 4 (1.6) 4 (1.4) 10 (1.6) Icaland 8 (0.2) 63 (0.4) 90 (0.2) 87 (0.3) 53 (0.3) 44 (0.4) 73 (1.7) Icaland 99 (0.7) 0 (0.5) 1 (0.5) 0 (0.0) 0 (0.1) 0 (0.	England	1 (1.2)	r	88 (3.2)		95 (2.1)		86 (3.3)		55 (4.7)	56 (4.8)		93 (2.2)
Greece 82 (3.3) 0 (0.0) 17 (3.3) 9 (1.7) 6 (2.8) 8 (3.0) 7 (1) Hong Kong, SAR 21 (4.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (1) Hungary 61 (4.7) 3 (1.5) 36 (4.6) 26 (3.8) 4 (1.6) 4 (1.4) 10 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	France	17 (3.6)	r	41 (4.7)	r	76 (4.3)		51 (4.8)		29 (3.8)	30 (3.9)		62 (3.5)
Hong Kong, SAR 21 (4.2) r 31 (4.5) 75 (4.7) 72 (4.6) 28 (4.0) 31 (4.1) 7 (Hungary 61 (4.7) 3 (1.5) 36 (4.6) 26 (3.8) 4 (1.6) 4 (1.4) 10 (Iceland 8 (0.2) 63 (0.4) 90 (0.2) 87 (0.3) 53 (0.3) 44 (0.4) 73 (Iran, Islamic Rep. of 99 (0.7) 0 (0.5) 1 (0.5) 0 (0.0) 0 (0.1) 0 (0.1) 0 (0.1) Israel 51 (3.4) r 27 (3.9) 41 (3.6) 33 (3.8) 25 (4.0) 31 (4.2) 45 (Italy 37 (3.2) r 5 (1.8) 60 (3.1) 37 (3.8) 19 (2.9) 19 (2.9) 36 (Italy 37 (3.2) r 5 (1.8) 60 (3.1) 37 (3.8) 19 (2.9) 19 (2.9) 36 (Italy 64 (3.8) r 2 (1.4) 34 (3.9) 26 (3.5) 5 (1.8) 8 (2.3) 17 (Italy 64 (3.7) 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Italy 64 (3.7) 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Italy 64 (3.7) 1 (1.0) 1	Germany	39 (3.0)		45 (3.9)	r	45 (3.5)		28 (3.0)		32 (3.3)	25 (2.9)		35 (3.8)
Hungary 61 (4.7) 3 (1.5) 36 (4.6) 26 (3.8) 4 (1.6) 4 (1.4) 10 (1celand 8 (0.2) 63 (0.4) 90 (0.2) 87 (0.3) 53 (0.3) 44 (0.4) 73 (1ran, Islamic Rep. of 99 (0.7) 0 (0.5) 1 (0.5) 0 (0.0) 0 (0.1) 0 (0.1) 0 (0.1) 10 (0.1) 10 (1srael 51 (3.4) r 27 (3.9) 41 (3.6) 33 (3.8) 25 (4.0) 31 (4.2) 45 (1taly 37 (3.2) r 5 (1.8) 60 (3.1) 37 (3.8) 19 (2.9) 19 (2.9) 36 (1taly 96 (2.0) 0 (0.0) 3 (1.7) 0 (0.0) 4 (1.9) 4 (1.9) 3 (1.4) 34 (3.9) 26 (3.5) 5 (1.8) 8 (2.3) 17 (1.4) 34 (3.9) 26 (3.5) 5 (1.8) 8 (2.3) 17 (1.4) 34 (3.9) 36 (3.8) 19 (2.9) 19 (2.9) 19 (2.9) 36 (3.8) 19 (2.9) 19 (2.9) 19 (2.9) 36 (3.8) 19 (2.9) 19 (2.9) 19 (2.9) 36 (3.8) 19 (2.9) 19 (2.9) 19 (2.9) 36 (3.8) 19 (2.9) 19 (2.9) 19 (2.9) 36 (3.8) 19 (2.9) 19 (2.	Greece	82 (3.3)		0 (0.0)		17 (3.3)		9 (1.7)		6 (2.8)	8 (3.0)		7 (2.9)
Iceland 8 (0.2) 63 (0.4) 90 (0.2) 87 (0.3) 53 (0.3) 44 (0.4) 73 (17an, Islamic Rep. of 99 (0.7) 0 (0.5) 1 (0.5) 0 (0.0) 0 (0.1) 0 (0.1) 0 (0.1) 0 (18rael 51 (3.4) r 27 (3.9) 41 (3.6) 33 (3.8) 25 (4.0) 31 (4.2) 45 (18aly 37 (3.2) r 5 (1.8) 60 (3.1) 37 (3.8) 19 (2.9) 19 (2.9) 36 (18aly 37 (3.2) r 5 (1.8) 60 (3.1) 37 (3.8) 19 (2.9) 19 (2.9) 36 (18aly 37 (3.2) r 5 (1.8) 34 (3.9) 26 (3.5) 5 (1.8) 8 (2.3) 17 (18aly 37 (3.2) r 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (18aly 37 (3.2) r 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (18aly 38 (3.8) r 2 (1.3) 6 (2.0) 2 (1.1) 5 (1.7) 5 (1.7) 3 (18aly 38 (3.8) r 1 (0.0) r 5 (2.4) r 0 (0.0) r 0 (0.4) r 2 (1.4) r 0 (1.4)	Hong Kong, SAR	21 (4.2)	r	31 (4.5)		75 (4.7)		72 (4.6)		28 (4.0)	31 (4.1)		7 (2.3)
Iran, Islamic Rep. of 99 (0.7) 0 (0.5) 1 (0.5) 0 (0.0) 0 (0.1) 0 (0.1) 0 (0.1) 0 (Israel 51 (3.4) r 27 (3.9) 41 (3.6) 33 (3.8) 25 (4.0) 31 (4.2) 45 (Italy 37 (3.2) r 5 (1.8) 60 (3.1) 37 (3.8) 19 (2.9) 19 (2.9) 36 (Italy 96 (2.0) 0 (0.0) 3 (1.7) 0 (0.0) 4 (1.9) 4 (1.9) 3 (Italy 96 (2.0) 0 (0.0) 3 (1.7) 0 (0.0) 4 (1.9) 4 (1.9) 3 (Italy 96 (3.8) r 2 (1.4) 34 (3.9) 26 (3.5) 5 (1.8) 8 (2.3) 17 (Italy 96 (3.7) 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Italy 96 (3.7) 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Italy 96 (3.7) 1 (3.2) 4 (1.6) 8 (3.4) 9 (Italy 96 (3.7) 1 (3.2) 14 (3.2) 14 (3.2) 15 (1.7) 1	Hungary	61 (4.7)		3 (1.5)		36 (4.6)		26 (3.8)		4 (1.6)	4 (1.4)		10 (2.7)
Israel 51 (3.4) r 27 (3.9) 41 (3.6) 33 (3.8) 25 (4.0) 31 (4.2) 45 (Italy 37 (3.2) r 5 (1.8) 60 (3.1) 37 (3.8) 19 (2.9) 19 (2.9) 36 (Italy 96 (2.0) 0 (0.0) 3 (1.7) 0 (0.0) 4 (1.9) 4 (1.9) 3 (Italy 96 (2.0) 10 (0.0) 3 (1.7) 0 (0.0) 4 (1.9) 4 (1.9) 3 (Italy 96 (3.8) r 2 (1.4) 34 (3.9) 26 (3.5) 5 (1.8) 8 (2.3) 17 (Italy 96 (3.7) 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Italy 96 (3.5) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Italy 96 (3.5) 15 (1.8) 15 (1.7) 5 (1.7) 3 (Italy 96 (3.5) 16 (3.2) 2 (1.3) 6 (2.0) 2 (1.1) 5 (1.7) 5 (1.7) 5 (1.7) 3 (Italy 96 (3.5) 16 (3.2) 16 (3.2) 16 (3.2) 17 (3.4) 17 (3.2) 18 (3.2) 18 (3.2) 19 (3.2) 18 (3.2) 19 (3.2) 18 (3.2) 19	Iceland	8 (0.2)		63 (0.4)		90 (0.2)		87 (0.3)		53 (0.3)	44 (0.4)		73 (0.3)
Italy 37 (3.2) r 5 (1.8) 60 (3.1) 37 (3.8) 19 (2.9) 19 (2.9) 36 (Kuwait 96 (2.0) 0 (0.0) 3 (1.7) 0 (0.0) 4 (1.9) 4 (1.9) 3 (Latvia 63 (3.8) r 2 (1.4) 34 (3.9) 26 (3.5) 5 (1.8) 8 (2.3) 17 (Lithuania 76 (3.7) 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Macedonia, Rep. of 85 (3.2) 2 (1.3) 6 (2.0) 2 (1.1) 5 (1.7) 5 (1.7) 3 (Moldova, Rep. of r 86 (2.8) r 1 (0.0) r 5 (2.4) r 0 (0.0) r 0 (0.4) r 2 (1.4) r 0 (0.0) Morocco 76 (4.6) r 1 (0.8) r 5 (2.2) r 1 (0.0) 1 (1.0) 1 (1.0) 1 (1.0) Netherlands 3 (2.0) r 90 (2.8) s 92 (3.2) 47 (4.6) 29 (4.1) 25 (3.9) 50 (Norway 14 (3.2) 58 (4.1) 83 (3.2) 71 (4.4) 47 (3.9) 27 (3.8) 61 (Russian Federation 91 (2.3) 0 (0.0) 17 (3.4) 5 (1.9) 5 (2.1) 10 (2.6) 14 (Russian Federation 91 (2.3) 96 (1.7) r 81 (4.3) 60 (4.0) 49 (4.9) 58 (5.0) 80 (Scotland 2 (1.3) 96 (1.7) r 81 (4.3) 60 (4.0) 49 (4.9) 58 (5.0) 80 (Slovak Republic 84 (3.0) 0 (0.0) 15 (2.9) 5 (1.8) 1 (0.5) 3 (1.5) 3 (Slovenia 32 (3.8) 7 (2.2) 66 (4.0) 64 (3.9) 28 (3.7) 33 (3.8) 33 (Sweden 1 (0.6) 89 (2.6) r 91 (2.0) 93 (1.6) 48 (3.5) 46 (2.7) 88 (Iran, Islamic Rep. of	99 (0.7)		0 (0.5)		1 (0.5)		0 (0.0)		0 (0.1)	0 (0.1)		0 (0.1)
Kuwait 96 (2.0) 0 (0.0) 3 (1.7) 0 (0.0) 4 (1.9) 4 (1.9) 3 (1.7) Latvia 63 (3.8) r 2 (1.4) 34 (3.9) 26 (3.5) 5 (1.8) 8 (2.3) 17 (1.0) Lithuania 76 (3.7) 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (1.7) Macedonia, Rep. of 85 (3.2) 2 (1.3) 6 (2.0) 2 (1.1) 5 (1.7) 5 (1.7) 3 (1.7) 3 (1.7) 3 (2.0) 7 (1.4) 7 (1.4) 7 (1.4) 9 (2.1)	Israel	51 (3.4)	r	27 (3.9)		41 (3.6)		33 (3.8)		25 (4.0)	31 (4.2)		45 (3.9)
Latvia 63 (3.8) r 2 (1.4) 34 (3.9) 26 (3.5) 5 (1.8) 8 (2.3) 17 (Lithuania 76 (3.7) 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Macedonia, Rep. of 85 (3.2) 2 (1.3) 6 (2.0) 2 (1.1) 5 (1.7) 5 (1.7) 3 (Moldova, Rep. of r 86 (2.8) r 1 (0.0) r 5 (2.4) r 0 (0.0) r 0 (0.4) r 2 (1.4) r 0 (0.0) Morocco 76 (4.6) r 1 (0.8) r 5 (2.2) r 1 (0.0) 1 (1.0) 1 (1.0) 1 (1.0) 1 (0.0) Netherlands 3 (2.0) r 90 (2.8) s 92 (3.2) 47 (4.6) 29 (4.1) 25 (3.9) 50 (1.0) New Zealand 0 (0.2) 94 (2.1) r 85 (3.8) 91 (2.7) 44 (4.5) 60 (4.6) 96 (1.0) Norway 14 (3.2) 58 (4.1) 83 (3.2) 71 (4.4) 47 (3.9) 27 (3.8) 61 (1.0) Russian Federation 91 (2.3) 0 (0.0) 17 (3.4) 5 (1.9) 5 (2.1) 10 (2.6) 14 (1.0) Scotland 2 (1.3) 96 (1.7) r 81 (4.3) 60 (4.0) 49 (4.9) 58 (5.0) 80 (1.0) Singapore 9 (2.3) 56 (4.2) 88 (2.7) 78 (2.9) 56 (4.1) 67 (3.4) 55 (3.0) Slovak Republic 84 (3.0) 0 (0.0) 15 (2.9) 5 (1.8) 1 (0.5) 3 (1.5) 3 (1.5) Slovenia 32 (3.8) 7 (2.2) 66 (4.0) 64 (3.9) 28 (3.7) 33 (3.8) 33 (3.5) Sweden 1 (0.6) 89 (2.6) r 91 (2.0) 93 (1.6) 48 (3.5) 46 (2.7) 88 (3.5)	Italy	37 (3.2)	r	5 (1.8)		60 (3.1)		37 (3.8)		19 (2.9)	19 (2.9)		36 (3.4)
Lithuania 76 (3.7) 1 (1.0) 20 (3.7) 14 (3.2) 4 (1.6) 8 (2.4) 9 (Macedonia, Rep. of 85 (3.2) 2 (1.3) 6 (2.0) 2 (1.1) 5 (1.7) 5 (1.7) 3 (Moldova, Rep. of r 86 (2.8) r 1 (0.0) r 5 (2.4) r 0 (0.0) r 0 (0.4) r 2 (1.4) r 0 (0.0) Morocco 76 (4.6) r 1 (0.8) r 5 (2.2) r 1 (0.0) 1 (1.0) 1 (1.0) 1 (1.0) Netherlands 3 (2.0) r 90 (2.8) s 92 (3.2) 47 (4.6) 29 (4.1) 25 (3.9) 50 (New Zealand 0 (0.2) 94 (2.1) r 85 (3.8) 91 (2.7) 44 (4.5) 60 (4.6) 96 (Norway 14 (3.2) 58 (4.1) 83 (3.2) 71 (4.4) 47 (3.9) 27 (3.8) 61 (Romania 74 (4.0) r 1 (0.0) 17 (3.4) 5 (1.9) 5 (2.1) 10 (2.6) 14 (Russian Federation 91 (2.3) 0 (0.0) 9 (2.3) 1 (0.7) 2 (1.0) 4 (1.4) 4 (Scotland 2 (1.3) 96 (1.7) r 81 (4.3) 60 (4.0) 49 (4.9) 58 (5.0) 80 (Singapore 9 (2.3) 56 (4.2) 88 (2.7) 78 (2.9) 56 (4.1) 67 (3.4) 55 (Slovak Republic 84 (3.0) 0 (0.0) 15 (2.9) 5 (1.8) 1 (0.5) 3 (1.5) 3 (Slovenia 32 (3.8) 7 (2.2) 66 (4.0) 64 (3.9) 28 (3.7) 33 (3.8) 33 (Sweden 1 (0.6) 89 (2.6) r 91 (2.0) 93 (1.6) 48 (3.5) 46 (2.7) 88 (Kuwait	96 (2.0)		0 (0.0)		3 (1.7)		0 (0.0)		4 (1.9)	4 (1.9)		3 (1.9)
Macedonia, Rep. of 85 (3.2) 2 (1.3) 6 (2.0) 2 (1.1) 5 (1.7) 5 (1.7) 3 (Moldova, Rep. of r 86 (2.8) r 1 (0.0) r 5 (2.4) r 0 (0.0) r 0 (0.4) r 2 (1.4) r 0 (0.0) Morocco 76 (4.6) r 1 (0.8) r 5 (2.2) r 1 (0.0) 1 (1.0)	Latvia	63 (3.8)	r	2 (1.4)		34 (3.9)		26 (3.5)		5 (1.8)	8 (2.3)		17 (3.2)
Moldova, Rep. of r 86 (2.8) r 1 (0.0) r 5 (2.4) r 0 (0.0) r 0 (0.4) r 2 (1.4) r 0 (0.0) Morocco 76 (4.6) r 1 (0.8) r 5 (2.2) r 1 (0.0) 1 (1.0) 1 (Lithuania	76 (3.7)		1 (1.0)		20 (3.7)		14 (3.2)		4 (1.6)	8 (2.4)		9 (2.6)
Morocco 76 (4.6) r 1 (0.8) r 5 (2.2) r 1 (0.0) 1 (1.0) 25 (3.9) 50 (4.1) 50 (3.8) 91 (2.7) 44 (4.5) 60 (4.6) 96 (4.1) 96 (4.1) 96 (4.1) 97 (2.3) 96 (4.1) 97 (2.3) 96 (4.0) 96 (4.0) 96 (4.0) 96 (4.0) 96 (4.0) 96 (4.0) 96 (4.0) 96 (4.0) 96 (4.0) 96 (4.0) 96 (4.0) 96 (4.0)	Macedonia, Rep. of	85 (3.2)		2 (1.3)		6 (2.0)		2 (1.1)		5 (1.7)	5 (1.7)		3 (1.3)
Netherlands 3 (2.0) r 90 (2.8) s 92 (3.2) 47 (4.6) 29 (4.1) 25 (3.9) 50 (0.2) New Zealand 0 (0.2) 94 (2.1) r 85 (3.8) 91 (2.7) 44 (4.5) 60 (4.6) 96 (0.6) Norway 14 (3.2) 58 (4.1) 83 (3.2) 71 (4.4) 47 (3.9) 27 (3.8) 61 (0.7) Romania 74 (4.0) r 1 (0.0) 17 (3.4) 5 (1.9) 5 (2.1) 10 (2.6) 14 (0.6) Russian Federation 91 (2.3) 0 (0.0) 9 (2.3) 1 (0.7) 2 (1.0) 4 (1.4) 4 (1.4) Scotland 2 (1.3) 96 (1.7) r 81 (4.3) 60 (4.0) 49 (4.9) 58 (5.0) 80 (0.7) Singapore 9 (2.3) 56 (4.2) 88 (2.7) 78 (2.9) 56 (4.1) 67 (3.4) 55 (0.7) Slovak Republic 84 (3.0) 0 (0.0) 15 (2.9) 5 (1.8) 1 (0.5) 3 (1.5) 3 (3.8) Slovenia 32 (3.8) 7 (2.2) 66 (4.0) 64 (3.	Moldova, Rep. of	r 86 (2.8)	r	1 (0.0)	r	5 (2.4)	r	0 (0.0)	r	0 (0.4)	r 2 (1.4)	r	0 (0.4)
New Zealand 0 (0.2) 94 (2.1) r 85 (3.8) 91 (2.7) 44 (4.5) 60 (4.6) 96 (Norway 14 (3.2) 58 (4.1) 83 (3.2) 71 (4.4) 47 (3.9) 27 (3.8) 61 (Romania 74 (4.0) r 1 (0.0) 17 (3.4) 5 (1.9) 5 (2.1) 10 (2.6) 14 (Russian Federation 91 (2.3) 0 (0.0) 9 (2.3) 1 (0.7) 2 (1.0) 4 (1.4) 4 (Scotland 2 (1.3) 96 (1.7) r 81 (4.3) 60 (4.0) 49 (4.9) 58 (5.0) 80 (Singapore 9 (2.3) 56 (4.2) 88 (2.7) 78 (2.9) 56 (4.1) 67 (3.4) 55 (Slovak Republic 84 (3.0) 0 (0.0) 15 (2.9) 5 (1.8) 1 (0.5) 3 (1.5) 3 (Slovenia 32 (3.8) 7 (2.2) 66 (4.0) 64 (3.9) 28 (3.7) 33 (3.8) 33 (.8) Sweden 1 (0.6) 89 (2.6) r 91 (2.0) 93 (1.6) 48 (3.5) 46 (2.7) 88 (Morocco	76 (4.6)	r	1 (0.8)	r	5 (2.2)	r	1 (0.0)		1 (1.0)	1 (1.0)		1 (1.0)
Norway 14 (3.2) 58 (4.1) 83 (3.2) 71 (4.4) 47 (3.9) 27 (3.8) 61 (8 (4.1) 80 (4.0) 80	Netherlands	3 (2.0)	r	90 (2.8)	S	92 (3.2)		47 (4.6)		29 (4.1)	25 (3.9)		50 (4.7)
Romania 74 (4.0) r 1 (0.0) 17 (3.4) 5 (1.9) 5 (2.1) 10 (2.6) 14 (2.6) Russian Federation 91 (2.3) 0 (0.0) 9 (2.3) 1 (0.7) 2 (1.0) 4 (1.4)<	New Zealand	0 (0.2)		94 (2.1)	r	85 (3.8)		91 (2.7)		44 (4.5)	60 (4.6)		96 (1.6)
Russian Federation 91 (2.3) 0 (0.0) 9 (2.3) 1 (0.7) 2 (1.0) 4 (1.4) 4 (Scotland 2 (1.3) 96 (1.7) r 81 (4.3) 60 (4.0) 49 (4.9) 58 (5.0) 80 (Singapore 9 (2.3) 56 (4.2) 88 (2.7) 78 (2.9) 56 (4.1) 67 (3.4) 55 (Slovak Republic 84 (3.0) 0 (0.0) 15 (2.9) 5 (1.8) 1 (0.5) 3 (1.5) 3 (Slovenia 32 (3.8) 7 (2.2) 66 (4.0) 64 (3.9) 28 (3.7) 33 (3.8) 33 (Sweden 1 (0.6) 89 (2.6) r 91 (2.0) 93 (1.6) 48 (3.5) 46 (2.7) 88 (Norway	14 (3.2)		58 (4.1)		83 (3.2)		71 (4.4)		47 (3.9)	27 (3.8)		61 (4.3)
Scotland 2 (1.3) 96 (1.7) r 81 (4.3) 60 (4.0) 49 (4.9) 58 (5.0) 80 (3.0) Singapore 9 (2.3) 56 (4.2) 88 (2.7) 78 (2.9) 56 (4.1) 67 (3.4) 55 (3.4) Slovak Republic 84 (3.0) 0 (0.0) 15 (2.9) 5 (1.8) 1 (0.5) 3 (1.5) 3 (5.0) Slovenia 32 (3.8) 7 (2.2) 66 (4.0) 64 (3.9) 28 (3.7) 33 (3.8) 33 (3.8) Sweden 1 (0.6) 89 (2.6) r 91 (2.0) 93 (1.6) 48 (3.5) 46 (2.7) 88 (3.5)	Romania	74 (4.0)	r	1 (0.0)		17 (3.4)		5 (1.9)		5 (2.1)	10 (2.6)		14 (3.1)
Singapore 9 (2.3) 56 (4.2) 88 (2.7) 78 (2.9) 56 (4.1) 67 (3.4) 55 (3.4) Slovak Republic 84 (3.0) 0 (0.0) 15 (2.9) 5 (1.8) 1 (0.5) 3 (1.5) 3 (5) Slovenia 32 (3.8) 7 (2.2) 66 (4.0) 64 (3.9) 28 (3.7) 33 (3.8) 33 (3.8) Sweden 1 (0.6) 89 (2.6) r 91 (2.0) 93 (1.6) 48 (3.5) 46 (2.7) 88 (3.5)	Russian Federation	91 (2.3)		0 (0.0)		9 (2.3)		1 (0.7)		2 (1.0)	4 (1.4)		4 (2.2)
Slovak Republic 84 (3.0) 0 (0.0) 15 (2.9) 5 (1.8) 1 (0.5) 3 (1.5) 3 (Slovenia 32 (3.8) 7 (2.2) 66 (4.0) 64 (3.9) 28 (3.7) 33 (3.8) 33 (Sweden 1 (0.6) 89 (2.6) r 91 (2.0) 93 (1.6) 48 (3.5) 46 (2.7) 88 (Scotland	2 (1.3)		96 (1.7)	r	81 (4.3)		60 (4.0)		49 (4.9)	58 (5.0)		80 (4.2)
Slovenia 32 (3.8) 7 (2.2) 66 (4.0) 64 (3.9) 28 (3.7) 33 (3.8) 33 (Sweden 1 (0.6) 89 (2.6) r 91 (2.0) 93 (1.6) 48 (3.5) 46 (2.7) 88 (Singapore	9 (2.3)		56 (4.2)		88 (2.7)		78 (2.9)		56 (4.1)	67 (3.4)		55 (4.5)
Sweden 1 (0.6) 89 (2.6) r 91 (2.0) 93 (1.6) 48 (3.5) 46 (2.7) 88 (Slovak Republic	84 (3.0)		0 (0.0)		15 (2.9)		5 (1.8)		1 (0.5)	3 (1.5)		3 (1.5)
Sweden 1 (0.6) 89 (2.6) r 91 (2.0) 93 (1.6) 48 (3.5) 46 (2.7) 88 (Slovenia	32 (3.8)		7 (2.2)		66 (4.0)		64 (3.9)		28 (3.7)	33 (3.8)		33 (4.3)
Turkey 82 (3.4) 2 (1.2) 18 (3.3) 9 (2.2) 5 (2.2) 7 (2.5) 11 (Sweden	1 (0.6)		89 (2.6)	r	91 (2.0)		93 (1.6)					88 (1.5)
, , , , , , , , , , , , , , , , , , , ,	Turkey	82 (3.4)		2 (1.2)		18 (3.3)		9 (2.2)		5 (2.2)	7 (2.5)		11 (1.8)
United States 2 (1.1) 92 (2.3) 93 (2.4) 92 (1.8) 66 (4.1) 60 (4.2) 74 (United States	2 (1.1)		92 (2.3)		93 (2.4)		92 (1.8)		66 (4.1)	60 (4.2)		74 (3.8)
International Avg. 50 (0.5) 29 (0.4) 45 (0.5) 36 (0.5) 21 (0.5) 22 (0.5) 32 (International Avg.	50 (0.5)		29 (0.4)		45 (0.5)		36 (0.5)		21 (0.5)	22 (0.5)		32 (0.5)

Background data provided by teachers.

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.

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

Exhibit 6.32: Students' Reports on Computer Use



	Percentage of		Percentage of Students Who Reported Using a Computer at Least Weekly							
Countries	Students W Reported Ev Using a Computer	/er	At Home	At School	At Some Other Place					
Argentina	r 62 (2.0)		r 33 (1.8)	r 28 (2.4)	r 29 (1.6)					
Belize	r 47 (3.6)		r 24 (2.4)	r 10 (1.6)	r 20 (1.5)					
Bulgaria	60 (2.1)		21 (1.2)	r 10 (1.5)	32 (1.4)					
Canada (O,Q)	94 (0.4)		76 (0.8)	69 (1.7)	31 (1.0)					
Colombia	54 (3.2)		18 (1.6)	37 (3.4)	19 (1.5)					
Cyprus	59 (1.7)		44 (1.6)	15 (1.7)	19 (1.1)					
Czech Republic	75 (1.3)		50 (1.4)	18 (1.8)	22 (1.0)					
England	97 (0.4)		74 (1.0)	67 (2.7)	29 (1.0)					
France	95 (0.5)		60 (1.0)	38 (2.8)	24 (0.9)					
Germany	85 (0.6)		66 (0.8)	17 (1.5)	19 (0.7)					
Greece	62 (2.0)		37 (1.8)	13 (2.4)	26 (1.2)					
Hong Kong, SAR	95 (0.5)		61 (1.3)	68 (2.6)	19 (0.6)					
Hungary	77 (1.5)		52 (1.2)	28 (3.1)	23 (1.0)					
Iceland	91 (0.5)		69 (0.9)	59 (0.8)	28 (0.9)					
Iran, Islamic Rep. of	11 (1.1)		7 (0.8)	1 (0.3)	5 (0.5)					
Israel	93 (0.6)		78 (0.8)	59 (2.6)	43 (1.0)					
Italy	75 (1.2)		53 (1.0)	24 (2.5)	17 (0.7)					
Kuwait	r 64 (1.7)		s 48 (1.6)	s 9 (0.9)	s 23 (1.1)					
Latvia	58 (1.7)		25 (1.2)	17 (2.3)	20 (0.9)					
Lithuania	53 (1.7)		29 (1.3)	7 (1.3)	19 (1.0)					
Macedonia, Rep. of	60 (2.1)		32 (1.7)	8 (0.9)	28 (1.4)					
Moldova, Rep. of	r 21 (1.9)		r 6 (0.8)	r 5 (1.1)	r 7 (0.8)					
Morocco	32 (3.1)		r 18 (2.1)	r 9 (1.7)	r 12 (1.6)					
Netherlands	93 (0.5)		76 (0.9)	50 (2.9)	24 (0.8)					
New Zealand	94 (0.6)		70 (1.2)	59 (2.2)	38 (1.4)					
Norway	92 (0.7)		70 (1.0)	22 (2.3)	27 (1.2)					
Romania	42 (2.4)		18 (1.5)	13 (2.3)	17 (1.4)					
Russian Federation	37 (1.8)		12 (0.7)	6 (1.1)	16 (0.8)					
Scotland	95 (0.7)		68 (0.9)	63 (3.0)	34 (1.1)					
Singapore	94 (0.4)		70 (0.7)	39 (1.9)	25 (0.8)					
Slovak Republic	54 (1.6)		34 (1.2)	5 (0.9)	17 (0.9)					
Slovenia	78 (1.1)		58 (1.2)	16 (1.5)	28 (1.2)					
Sweden	97 (0.3)		75 (0.7)	35 (2.0)	25 (0.8)					
Turkey	44 (3.0)		15 (1.3)	22 (3.4)	18 (1.3)					
	. ,		, ,	, ,	. ,					

Background data provided by students.

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

What Is the Role of Reading Homework?

According to students' reports presented in Exhibit 6.33, most students (82%) were given reading for homework at least once a week, and 60 percent at least three times a week. When they have reading homework, students reported spending, on average, just over half an hour on it. Countries where students reported the greatest amounts of reading homework included Cyprus, Greece, Lithuania, Moldova, Romania, the Russian Federation, and the Slovak Republic, where more than 80 percent reported having homework three or more times a week. Students in The Netherlands, one of the highest-performing countries, reported being assigned the least homework – 55 percent of students were in classes where reading homework was assigned less than once a week or never.

To provide the teacher's perspective on homework, PIRLS developed an Index of Reading for Homework that combined the amount of reading homework teachers reported assigning with the frequency with which they assigned it. Students at the high level of the index were expected to spend more than 30 minutes on reading homework at least once a week, those at the low level no more than 30 minutes less than once a week, and those at the medium level all other combinations. As shown in Exhibit 6.34, reading homework assignment practice varies enormously across the PIRLS countries, from 90 percent of students at the high level in Hungary to just 5 percent in The Netherlands. On average, internationally, 44 percent of students were at the high level, 46 percent at the medium, and just 10 percent at the low level.

Exhibit 6.33: **Students Assigned Reading for Homework**



Countries		ore Times Veek	1-2 Time	es a Week		an Once Veek	Ne	ever	Average Hours per Day Spent o
	Percent of Students	Average Achievement	Reading for Homework						
Argentina r	51 (1.6)	435 (6.5)	24 (1.1)	449 (5.7)	18 (1.2)	435 (6.9)	7 (0.6)	402 (10.4)	r 0.6 (0.01)
Belize r	51 (2.4)	329 (6.6)	27 (1.9)	336 (7.7)	20 (1.4)	340 (7.2)	2 (0.4)	~ ~	0.6 (0.02)
Bulgaria	71 (1.7)	556 (3.9)	18 (1.1)	554 (5.4)	9 (1.0)	556 (5.7)	2 (0.3)	~ ~	0.7 (0.01)
Canada (O,Q)	51 (1.7)	539 (2.7)	25 (1.3)	556 (3.3)	19 (0.8)	552 (4.3)	6 (0.6)	542 (7.2)	0.5 (0.01)
Colombia	65 (1.7)	421 (4.1)	22 (1.4)	452 (7.5)	10 (0.7)	426 (7.7)	3 (0.4)	379 (13.4)	0.8 (0.01)
Cyprus	85 (0.9)	501 (2.7)	7 (0.5)	470 (8.4)	6 (0.7)	462 (8.8)	2 (0.2)	~ ~	0.5 (0.01)
Czech Republic	33 (2.9)	537 (2.5)	29 (2.0)	539 (4.0)	29 (1.8)	536 (4.0)	10 (1.4)	546 (6.5)	0.5 (0.01)
England	36 (2.7)	558 (4.7)	35 (2.1)	556 (4.0)	22 (1.6)	553 (4.8)	7 (1.0)	547 (10.0)	0.5 (0.01)
France	44 (2.3)	522 (3.0)	31 (1.7)	536 (3.0)	23 (1.6)	525 (4.1)	2 (0.4)	~ ~	0.5 (0.01)
Germany	30 (1.8)	529 (3.3)	30 (1.2)	548 (2.1)	37 (1.4)	545 (2.3)	3 (0.4)	547 (8.7)	0.4 (0.01)
Greece	87 (1.2)	531 (3.5)	7 (0.9)	509 (7.9)	5 (0.6)	468 (9.2)	0 (0.1)	~ ~	0.9 (0.01)
Hong Kong, SAR	31 (1.0)	525 (3.3)	33 (1.0)	539 (3.2)	32 (1.1)	529 (3.5)	4 (0.4)	501 (6.8)	0.5 (0.01)
Hungary	76 (1.7)	543 (2.3)	16 (1.3)	549 (4.8)	8 (0.8)	546 (6.8)	0 (0.2)	~ ~	0.6 (0.01)
Iceland	79 (0.8)	514 (1.4)	11 (0.7)	527 (4.3)	8 (0.4)	508 (5.6)	2 (0.2)	~ ~	0.4 (0.01
Iran, Islamic Rep. of	73 (1.6)	417 (5.0)	14 (1.0)	419 (6.1)	12 (0.9)	408 (6.5)	1 (0.2)	~ ~	0.9 (0.01)
Israel	48 (1.3)	500 (3.5)	28 (0.9)	529 (4.0)	19 (0.9)	527 (5.6)	5 (0.5)	524 (8.1)	0.6 (0.01
Italy	60 (1.4)	542 (3.0)	27 (1.4)	550 (3.1)	12 (0.8)	539 (4.7)	1 (0.2)	~ ~	0.5 (0.01
Kuwait r	66 (1.4)	400 (3.9)	18 (0.9)	407 (7.0)	12 (0.7)	405 (7.1)	4 (0.4)	400 (12.4)	r 0.5 (0.01
Latvia	76 (1.5)	547 (2.5)	16 (1.1)	545 (3.5)	7 (0.8)	534 (6.2)	1 (0.2)	~ ~	0.6 (0.01)
Lithuania	85 (1.1)	546 (2.5)	9 (0.8)	551 (5.7)	6 (0.6)	525 (7.2)	1 (0.2)	~ ~	0.6 (0.01
Macedonia, Rep. of	79 (1.5)	450 (4.3)	11 (0.8)	459 (9.4)	8 (1.1)	444 (11.3)	2 (0.3)	~ ~	0.9 (0.01)
Moldova, Rep. of	94 (0.9)	495 (3.9)	4 (0.6)	483 (9.0)	2 (0.4)	~ ~	1 (0.2)	~ ~	0.8 (0.02
Morocco r	74 (2.3)	355 (9.2)	16 (1.9)	357 (17.3)	8 (0.8)	352 (11.6)	1 (0.3)	~ ~	0.7 (0.01
Netherlands	19 (1.3)	545 (3.7)	26 (1.5)	552 (3.5)	30 (1.5)	558 (3.2)	25 (2.2)	564 (3.5)	0.3 (0.01)
New Zealand	47 (2.7)	536 (4.8)	23 (1.6)	538 (5.9)	19 (1.4)	529 (7.4)	11 (1.2)	518 (9.9)	0.5 (0.01
Norway	70 (2.7)	501 (3.5)	24 (2.3)	505 (4.1)	6 (0.7)	466 (6.5)	1 (0.1)	~ ~	0.3 (0.01)
Romania	80 (1.6)	517 (4.7)	13 (1.2)	524 (8.9)	7 (0.6)	495 (7.9)	1 (0.2)	~ ~	0.8 (0.01
Russian Federation	88 (0.8)	531 (3.9)	8 (0.6)	524 (11.8)	4 (0.5)	500 (8.9)	1 (0.2)	~ ~	0.7 (0.01)
Scotland	34 (3.1)	509 (5.4)	48 (2.9)	548 (3.7)	13 (1.5)	518 (7.2)	5 (1.2)	527 (9.4)	0.4 (0.01)
Singapore	36 (1.4)	513 (5.8)	35 (0.9)	545 (4.9)	22 (0.9)	538 (6.1)	8 (0.5)	546 (7.6)	0.6 (0.01)
Slovak Republic	87 (1.4)	521 (2.8)	7 (0.8)	521 (6.5)	5 (0.8)	511 (14.0)	1 (0.4)	~ ~	0.5 (0.01)
Slovenia	49 (1.9)	492 (2.9)	26 (1.3)	514 (3.5)	23 (1.2)	511 (3.0)	2 (0.3)	~ ~	0.4 (0.01)
Sweden	38 (2.0)	557 (3.3)	44 (1.8)	566 (2.7)	16 (1.2)	558 (3.7)	2 (0.3)	~ ~	0.5 (0.01)
Turkey	78 (1.6)	452 (3.9)	16 (1.3)	447 (7.1)	6 (0.5)	423 (8.1)	0 (0.1)	~ ~	0.8 (0.01)
United States	44 (2.5)	540 (4.6)	28 (1.7)	547 (4.7)	19 (1.2)	547 (5.6)	8 (1.4)	546 (8.6)	0.5 (0.01)

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

Exhibit 6.34: Index of Reading for Homework (RFH)



	Hi R	igh FH		dium FH		ow FH	Book of the last of
Countries	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percentage of Students at High Level of RFH
Hungary	90 (2.6)	544 (2.4)	9 (2.5)	548 (10.0)	1 (0.0)	~ ~	c
Moldova, Rep. of	90 (2.8)	493 (4.4)	10 (2.8)	488 (13.5)	0 (0.0)	~ ~	o
Macedonia, Rep. of	82 (3.3)	447 (5.9)	16 (3.1)	434 (11.5)	1 (0.9)	~ ~	·····o
Greece	79 (3.8)	525 (4.0)	21 (3.8)	527 (7.3)	0 (0.0)	~ ~	·····•
Bulgaria	75 (3.8)	553 (3.9)	22 (3.5)	549 (10.2)	3 (1.6)	501 (25.8)	·····o
Russian Federation	72 (3.5)	528 (4.4)	26 (3.5)	528 (8.5)	1 (0.7)	~ ~	
Romania	72 (3.4)	508 (5.7)	25 (3.5)	522 (6.7)	3 (1.4)	512 (11.7)	о
Colombia	65 (4.5)	419 (6.8)	27 (4.0)	447 (5.8)	8 (3.4)	412 (24.2)	о
Turkey	61 (4.6)	447 (4.3)	35 (4.5)	457 (6.4)	4 (1.6)	410 (20.0)	o
Iran, Islamic Rep. of	58 (4.2)	412 (7.1)	33 (3.4)	422 (6.8)	9 (2.7)	404 (9.2)	·····o
Argentina	54 (5.4)	428 (7.7)	39 (5.2)	409 (11.3)	7 (2.4)	407 (12.6)	
Sweden	52 (3.0)	561 (3.0)	37 (2.9)	562 (3.8)	11 (2.1)	562 (4.0)	······o
Israel	51 (4.6)	518 (6.5)	41 (4.8)	500 (7.4)	7 (2.4)	474 (32.3)	
Belize r	51 (7.5)	325 (9.1)	39 (6.5)	328 (11.3)	10 (4.0)	326 (20.5)	о
Morocco r	50 (5.2)	355 (16.0)	41 (5.0)	335 (9.7)	9 (3.0)	331 (26.7)	o
Lithuania	50 (4.0)	546 (4.2)	47 (4.1)	541 (4.0)	3 (1.4)	526 (19.3)	o
Latvia	50 (3.8)	543 (3.7)	49 (3.9)	548 (3.0)	1 (0.9)	~ ~	o
Italy	47 (3.8)	536 (3.9)	48 (3.9)	545 (3.9)	4 (1.4)	545 (14.2)	••
Singapore	39 (3.8)	548 (7.6)	30 (3.5)	511 (9.6)	31 (3.3)	526 (9.2)	•••••••••••••••••••••••••••••••••••••••
United States	33 (3.7)	532 (7.2)	53 (3.8)	548 (5.4)	13 (3.0)	539 (11.0)	o
Slovenia	32 (3.8)	502 (3.9)	62 (3.9)	502 (2.6)	5 (1.9)	516 (10.9)	o
Slovak Republic	31 (4.1)	521 (6.1)	68 (4.2)	519 (3.5)	1 (1.0)	~ ~	·····•
Kuwait	30 (3.9)	402 (8.6)	58 (4.3)	399 (5.8)	12 (2.8)	386 (15.6)	o
Hong Kong, SAR	29 (4.6)	527 (6.4)	44 (4.3)	533 (5.0)	27 (3.5)	526 (5.4)	o
celand	29 (0.3)	511 (1.9)	68 (0.4)	514 (1.6)	3 (0.1)	516 (8.3)	o
England	25 (3.8)	554 (9.5)	61 (4.4)	554 (3.8)	13 (3.1)	565 (8.6)	·····•
Norway	21 (3.4)	497 (6.6)	78 (3.3)	500 (3.3)	1 (0.6)	~ ~	o
Canada (O,Q)	19 (3.0)	551 (4.7)	65 (3.4)	542 (3.0)	15 (2.5)	545 (6.4)	o
Cyprus	17 (3.8)	490 (7.1)	81 (3.9)	494 (3.3)	2 (1.3)	~ ~	·····•
Czech Republic	15 (3.4)	534 (7.9)	75 (3.9)	537 (2.8)	10 (2.7)	542 (6.2)	•
New Zealand	15 (3.2)	539 (9.1)	69 (4.4)	529 (4.7)	17 (3.6)	516 (14.7)	•
Scotland	14 (3.3)	519 (9.3)	76 (4.2)	529 (4.1)	10 (3.1)	540 (11.7)	·····o
France	13 (2.7)	526 (5.2)	64 (4.1)	527 (3.1)	24 (3.3)	522 (6.6)	·····o
Germany	6 (1.8)	529 (8.1)	82 (2.5)	541 (2.0)	12 (1.9)	541 (4.7)	···o
Netherlands r	5 (1.9)	557 (13.5)	24 (3.5)	559 (4.8)	71 (3.6)	554 (3.3)	0

Index of Reading for Homework (RFH)

Based on teachers' responses to two questions: How often do you assign reading as part of homework (for any subject)? In general, how much time do you expect students to spend on homework involving reading (for any subject) each time you assign it? High level indicates students are expected to spend

more than 30 minutes at least 1-2 times a week. Low level indicates students are never assigned homework or are expected to spend no more than 30 minutes less than once a week. Medium level indicates all other combinations of frequencies.

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

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

How Do Teachers Assess Reading Progress?

Teachers have a range of options available to them when it comes to monitoring students' progress in reading, including a variety of classroom, standardized and diagnostic tests, external examinations, and other less formal methods such as portfolios of students' work, and observation of performance in class. As may be seen from Exhibit 6.35, teachers relied most on their own professional opinion when monitoring student progress. On average, 70 percent of students were in classes where teachers reported placing major emphasis on professional opinion, compared to 55 percent where the emphasis was on classroom tests, 39 percent on diagnostic tests, 23 percent on national or regional examinations, and 16 percent on standardized tests. In Cyprus, Greece, Scotland, and Sweden, more than 90 percent of students were taught by teachers placing major emphasis on professional opinion for monitoring progress.

Assembling samples of a student's work into a collection or portfolio has become a popular approach to tracking student progress in recent years. Portfolios have the advantage that they serve as a positive record of the student's accomplishments that is readily understood by the student and easily communicated to parents and to other professionals. Exhibit 6.36 shows that, internationally, portfolios were a popular supplementary source for assessing student progress in reading, with more than half the students (55%), on average, taught by teachers that used portfolios in this way. In addition, 25 percent of students had teachers that reported using portfolios as a major resource in assessing their students. Teachers in France relied particularly on portfolios for assessment — 72 percent of French students had teachers using portfolios as a major source of information.

Exhibit 6.37 presents teachers' reports on their use of a range of other approaches for assessing fourth-grade student performance in reading. Oral questioning of students and listening to students read aloud were most frequently reported, with 82 percent and 79 percent of students, respectively, in classes where teachers reported using these methods at least weekly. The emphasis on oral assessment was particularly strong in Bulgaria, Cyprus, Greece, Iran, Moldova, Morocco, Romania, the Russian Federation, Scotland,

and Turkey, where essentially all students were in classes where it was at least a weekly occurrence.

Next in popularity among teachers for assessment were short answer written questions on the material read, and students giving an oral summary or report of what they have read. More than half the students, internationally, on average, had teachers reporting that they used these techniques at least weekly. Teachers reported using multiple-choice questions and paragraph-length written responses about what they had read for 40 percent and 30 percent of students, respectively.

Exhibit 6.35: Emphasis on Sources to Monitor Students' Progress in Reading



	Percentage of Students Whose Teachers Reported Placing Major Emphasis on Various Sources						
Countries	Teacher's Own Professional Opinion	Classroom Tests	Diagnostic Tests	National or Regional Examinations	Standardized Tests		
Argentina	r 73 (4.1)	59 (5.1)	58 (4.6)	15 (2.9)	r 8 (2.5)		
Belize	r 55 (5.3)	r 74 (3.7)	r 39 (5.2)	r 15 (3.7)	r 16 (4.6)		
Bulgaria	84 (2.9)	71 (3.8)	37 (4.0)	28 (3.8)	60 (3.8)		
Canada (O,Q)	74 (3.2)	53 (3.4)	23 (2.6)	11 (1.9)	7 (1.7)		
Colombia	68 (4.5)	65 (4.0)	60 (4.6)	7 (2.2)	3 (1.4)		
Cyprus	91 (3.1)	50 (4.4)	54 (4.5)	3 (2.0)	0 (0.2)		
Czech Republic	62 (4.0)	34 (4.9)	19 (3.5)	2 (1.1)	2 (1.7)		
England	80 (3.8)	24 (4.5)	31 (4.8)	40 (5.2)	13 (3.3)		
France	80 (3.2)	74 (3.4)	44 (4.1)	26 (3.4)	10 (2.0)		
Germany	49 (3.2)	33 (3.2)	20 (2.6)	r 4 (1.5)	r 6 (1.7)		
Greece	95 (1.9)	84 (3.4)			5 (2.2)		
Hong Kong, SAR	28 (3.8)	40 (4.6)	27 (4.1)	11 (2.5)	5 (1.9)		
Hungary	77 (3.9)	78 (3.3)	41 (4.3)	29 (3.8)	15 (2.9)		
Iceland	56 (0.3)	14 (0.3)	31 (0.4)	11 (0.2)	36 (0.4)		
Iran, Islamic Rep. of	62 (4.1)	76 (3.2)	61 (4.3)	22 (2.9)	20 (3.2)		
Israel	71 (4.3)	64 (4.1)	44 (4.7)	19 (3.6)	r 7 (2.1)		
Italy	77 (3.4)	82 (3.0)	49 (3.9)	4 (1.8)	16 (2.6)		
Kuwait	r 56 (4.2)	72 (3.3)	r 52 (3.8)	r 39 (3.4)	r 18 (3.1)		
Latvia	63 (4.4)	44 (3.7)	33 (4.0)	24 (2.9)	17 (2.4)		
Lithuania	80 (3.9)	66 (4.2)	23 (3.4)		12 (3.0)		
Macedonia, Rep. of	79 (3.8)	70 (4.0)	35 (4.4)	26 (4.0)	23 (3.7)		
Moldova, Rep. of	68 (4.5)	92 (2.3)	55 (4.5)	65 (4.5)	38 (4.9)		
Morocco	r 77 (4.5)	71 (4.5)	r 69 (4.6)	r 16 (4.0)	r 34 (5.1)		
Netherlands	78 (3.6)	58 (4.4)	74 (4.0)	71 (3.8)	r 18 (3.2)		
New Zealand	68 (4.3)	19 (3.5)	56 (4.7)		19 (3.6)		
Norway	69 (4.0)	13 (2.9)	29 (3.7)		15 (3.0)		
Romania	73 (4.4)	85 (3.4)	41 (4.6)	19 (3.8)	17 (3.8)		
Russian Federation	71 (3.6)	69 (3.4)	64 (3.8)	27 (3.2)	43 (4.0)		
Scotland	92 (2.5)	26 (4.0)	14 (2.6)	51 (5.3)	6 (2.6)		
Singapore	45 (3.5)	47 (3.8)	14 (2.7)	52 (3.7)	19 (3.2)		
Slovak Republic	47 (4.4)	35 (3.8)	19 (3.1)	3 (1.4)	14 (3.0)		
Slovenia	67 (4.1)	49 (4.1)	15 (3.0)	3 (1.5)	3 (1.5)		
Sweden	90 (1.8)	12 (1.8)	24 (2.6)	39 (3.1)	11 (1.8)		
Turkey	75 (3.9)	80 (3.0)	36 (4.7)	10 (2.4)	16 (3.2)		
United States	69 (4.4)	52 (3.3)	24 (4.2)	16 (3.0)	19 (3.2)		
International Avg.	70 (0.6)	55 (0.6)	39 (0.7)	23 (0.6)	16 (0.5)		

Background data provided by teachers.

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

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

Exhibit 6.36: Use of Portfolios (Collections of Students' Work) to Monitor Students' Progress in Reading



	Percentage of Students Whose Teachers Reported Using Portfolios to Monitor Students' Progress						
Countries	As a Major Source		As a Supplementary Source		Not Used		
	Percent of Students	Average Achievement	Percent of Students	Average Achievement	Percent of Students	Average Achievement	
Argentina	57 (4.7)	415 (8.1)	38 (5.0)	423 (10.0)	5 (2.3)	416 (18.2)	
Belize	19 (3.8)	328 (14.7)	50 (5.6)	323 (8.2)	31 (6.0)	324 (13.9)	
Bulgaria	34 (4.1)	554 (6.6)	63 (4.3)	549 (5.0)	3 (1.5)	533 (52.9)	
Canada (O,Q)	27 (3.2)	550 (4.2)	49 (3.5)	546 (3.6)	25 (2.6)	539 (4.7)	
Colombia	49 (4.5)	422 (7.5)	31 (4.0)	429 (8.9)	19 (3.7)	410 (9.8)	
Cyprus	17 (3.3)	504 (7.5)	59 (5.8)	492 (3.9)	24 (5.0)	487 (6.3)	
Czech Republic	11 (2.5)	549 (9.9)	59 (4.3)	535 (3.2)	29 (3.9)	537 (3.5)	
England	20 (4.3)	542 (7.0)	68 (4.6)	558 (4.7)	12 (3.1)	553 (8.3)	
France	72 (3.2)	526 (2.7)	26 (3.0)	521 (4.9)	3 (1.5)	520 (8.5)	
Germany	13 (2.2)	525 (6.7)	59 (2.9)	540 (2.9)	28 (3.1)	546 (3.1)	
Greece	39 (4.7)	525 (7.2)	47 (4.4)	525 (5.8)	13 (2.9)	530 (8.2)	
Hong Kong, SAR	14 (3.1)	519 (8.4)	34 (4.2)	530 (5.8)	52 (4.8)	530 (4.4)	
Hungary	28 (3.3)	536 (4.6)	43 (4.3)	549 (3.9)	29 (3.2)	545 (5.0)	
Iceland	22 (0.3)	519 (2.3)	64 (0.4)	512 (1.5)	14 (0.3)	509 (3.6)	
Iran, Islamic Rep. of	19 (3.4)	422 (11.7)	40 (4.5)	411 (8.9)	41 (4.7)	411 (8.1)	
Israel	27 (4.3)	524 (8.0)	64 (4.5)	506 (5.1)	9 (2.6)	481 (22.3)	
Italy	31 (3.8)	544 (5.3)	41 (3.4)	536 (3.9)	28 (3.6)	547 (4.2)	
Kuwait r	44 (3.7)	405 (7.8)	39 (3.6)	396 (6.2)	17 (3.2)	379 (11.3)	
Latvia	7 (2.3)	575 (7.8)	75 (3.9)	541 (2.5)	17 (3.7)	545 (7.6)	
Lithuania	30 (4.3)	547 (5.2)	57 (4.5)	543 (3.5)	12 (2.7)	536 (8.9)	
Macedonia, Rep. of	16 (3.4)	415 (18.2)	77 (3.9)	449 (6.2)	7 (2.2)	435 (18.0)	
Moldova, Rep. of	14 (2.7)	501 (8.3)	66 (4.4)	496 (5.3)	20 (4.0)	478 (12.1)	
Morocco r	40 (5.1)	319 (15.2)	35 (4.9)	346 (13.0)	25 (4.7)	371 (14.7)	
Netherlands	11 (3.2)	567 (7.3)	56 (4.5)	551 (3.7)	33 (3.6)	555 (3.8)	
New Zealand	15 (2.8)	526 (9.2)	73 (3.9)	529 (5.0)	12 (3.1)	517 (13.9)	
Norway	22 (3.5)	508 (6.0)	47 (4.4)	494 (3.6)	31 (4.2)	502 (5.8)	
Romania	26 (3.5)	514 (10.9)	67 (4.2)	519 (5.8)	7 (2.2)	470 (14.9)	
Russian Federation	10 (2.0)	528 (17.8)	67 (3.3)	529 (4.0)	23 (3.0)	527 (7.1)	
Scotland	27 (4.0)	522 (6.9)	62 (4.4)	532 (4.7)	10 (3.0)	527 (10.0)	
Singapore	17 (3.0)	545 (10.5)	58 (4.1)	520 (7.1)	25 (3.1)	534 (11.3)	
Slovak Republic	2 (1.2)	~ ~	92 (2.1)	521 (2.8)	6 (1.7)	482 (26.9)	
Slovenia	13 (3.0)	503 (4.5)	68 (3.9)	500 (2.7)	20 (3.1)	506 (5.6)	
Sweden	9 (1.7)	572 (5.3)	43 (3.5)	558 (3.8)	48 (3.9)	563 (2.7)	
Turkey	30 (4.0)	451 (6.0)	62 (4.4)	449 (4.8)	9 (2.3)	441 (11.4)	
United States	23 (3.7)	526 (8.3)	57 (4.3)	548 (4.5)	20 (3.9)	549 (7.9)	
International Avg.	25 (0.6)	501 (1.5)	55 (0.7)	500 (0.9)	20 (0.6)	495 (2.4)	

Background data provided by teachers

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

Exhibit 6.37: Approaches to Assessing Students' Performance in Reading



Argentina		Percentage of Students for Whose Teachers Reported Using at Least Weekly							
Belize 52 (5.0) 82 (3.6) r 36 (6.8) r 80 (4.1) r 86 (3.9) 45 (7.0) Bulgaria 65 (3.3) 42 (4.1) 33 (3.5) 96 (1.6) 94 (2.1) 84 (3.1) Canada (O,Q) 8 (2.0) 55 (3.8) 32 (3.0) 55 (3.5) 68 (3.2) 33 (3.2) Colombia 59 (4.8) 70 (4.6) 53 (4.9) 79 (4.0) 83 (3.7) 72 (4.5) Cyprus 28 (4.4) 70 (4.8) 56 (4.6) 96 (2.3) 99 (0.9) 91 (3.0) Czech Republic 61 (4.6) 77 (3.7) 15 (3.0) 90 (2.9) 88 (3.0) 38 (4.1) England 6 (2.4) 33 (4.3) 22 (3.9) 66 (4.4) 77 (4.2) 38 (4.6) France 30 (3.6) 58 (4.3) 12 (2.6) 65 (3.9) 75 (2.9) 46 (3.5) Germany r 8 (1.8) 14 (2.2) 4 (1.4) 80 (2.8) 62 (2.8) 58 (3.1) Greece 48 (4.7) 55 (5.1) 48 (5.3) 98 (1.3) 99 (0.8) 82 (3.4) Hong Kong, SAR 13 (2.8) 34 (4.6) 21 (3.6) 58 (4.2) 79 (4.2) 33 (4.2) Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) Izeland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) Iran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 94 (1.6) 58 (4.7) Israel 55 (4.9) 71 (4.3) 61 (4.7) 70 (4.3) 91 (2.9) 77 (4.1) Italy 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) Macedonia, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 99 (2.0) 20 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 99 (1.0) 61 (4.3) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.4) 99 (5.0) 69 (3.6) Scotland 10 (3.1) 59 (4.9) 99 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Countries	Choice Questions on	Answer Written Questions on	Length Written Responses on	Students Read	Questioning of	Students Giving an Oral Summary/ Report on Material Read		
Bulgaria 65 (3.3) 42 (4.1) 33 (3.5) 96 (1.6) 94 (2.1) 84 (3.1) Canada (O,Q) 8 (2.0) 55 (3.8) 32 (3.0) 55 (3.5) 68 (3.2) 33 (3.2) Colombia 59 (4.8) 70 (4.6) 53 (4.9) 79 (4.0) 83 (3.7) 72 (4.5) Cyprus 28 (4.4) 70 (4.8) 56 (4.6) 96 (2.3) 99 (0.9) 91 (3.0) Czech Republic 61 (4.6) 77 (3.7) 15 (3.0) 90 (2.9) 88 (3.0) 38 (4.1) England 6 (2.4) 33 (4.3) 22 (3.9) 66 (4.4) 77 (4.2) 38 (4.6) France 30 (3.6) 58 (4.3) 12 (2.6) 65 (3.9) 75 (2.9) 46 (3.5) Germany r 8 (1.8) 14 (2.2) 4 (1.4) 80 (2.8) 62 (2.8) 58 (3.1) Greece 48 (4.7) 55 (5.1) 48 (5.3) 98 (1.3) 99 (0.8) 82 (3.4) Hong Kong, SAR 13 (2.8) 34 (4.6) 21 (3.6) 58 (4.2) 79 (4.2) 33 (4.2) Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) Iceland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) Iran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 94 (1.6) 58 (4.7) Italy 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 79 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (Argentina	40 (4.5)	73 (4.7)	r 32 (4.6)	87 (3.4)	91 (2.8)	68 (4.7)		
Canada (O,Q) 8 (2.0) 55 (3.8) 32 (3.0) 55 (3.5) 68 (3.2) 33 (3.2) Colombia 59 (4.8) 70 (4.6) 53 (4.9) 79 (4.0) 83 (3.7) 72 (4.5) Cyprus 28 (4.4) 70 (4.8) 56 (4.6) 96 (2.3) 99 (0.9) 91 (3.0) Czech Republic 61 (4.6) 77 (3.7) 15 (3.0) 90 (2.9) 88 (3.0) 38 (4.1) England 6 (2.4) 33 (4.3) 22 (3.9) 66 (4.4) 77 (4.2) 38 (4.6) France 30 (3.6) 58 (4.3) 12 (2.6) 65 (3.9) 75 (2.9) 46 (3.5) Germany r 8 (1.8) 14 (2.2) 4 (1.4) 80 (2.8) 62 (2.8) 58 (3.1) Greece 48 (4.7) 55 (5.1) 48 (5.3) 98 (1.3) 99 (0.8) 82 (3.4) Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) Iceland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) <	Belize	52 (5.0)	82 (3.6)	r 36 (6.8)	r 80 (4.1)	r 86 (3.9)	45 (7.0)		
Colombia 59 (4.8) 70 (4.6) 53 (4.9) 79 (4.0) 83 (3.7) 72 (4.5) Cyprus 28 (4.4) 70 (4.8) 56 (4.6) 96 (2.3) 99 (0.9) 91 (3.0) Czech Republic 61 (4.6) 77 (3.7) 15 (3.0) 90 (2.9) 88 (3.0) 38 (4.1) England 6 (2.4) 33 (4.3) 22 (3.9) 66 (4.4) 77 (4.2) 38 (4.6) France 30 (3.6) 58 (4.3) 12 (2.6) 65 (3.9) 75 (2.9) 46 (3.5) Germany r 8 (1.8) 14 (2.2) 4 (1.4) 80 (2.8) 62 (2.8) 58 (3.1) Greece 48 (4.7) 55 (5.1) 48 (5.3) 98 (1.3) 99 (0.8) 82 (3.4) Hong Kong, SAR 13 (2.8) 34 (4.6) 21 (3.6) 58 (4.2) 79 (4.2) 33 (4.2) Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) Icaland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) Iran, Islam	Bulgaria	65 (3.3)	42 (4.1)	33 (3.5)	96 (1.6)	94 (2.1)	84 (3.1)		
Cyprus 28 (4.4) 70 (4.8) 56 (4.6) 96 (2.3) 99 (0.9) 91 (3.0) Czech Republic 61 (4.6) 77 (3.7) 15 (3.0) 90 (2.9) 88 (3.0) 38 (4.1) England 6 (2.4) 33 (4.3) 22 (3.9) 66 (4.4) 77 (4.2) 38 (4.6) France 30 (3.6) 58 (4.3) 12 (2.6) 65 (3.9) 75 (2.9) 46 (3.5) Germany r 8 (1.8) 14 (2.2) 4 (1.4) 80 (2.8) 62 (2.8) 58 (3.1) Greece 48 (4.7) 55 (5.1) 48 (5.3) 98 (1.3) 99 (0.8) 82 (3.4) Hong Kong, SAR 13 (2.8) 34 (4.6) 21 (3.6) 58 (4.2) 79 (4.2) 33 (4.2) Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) Iceland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) Iran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 41 (.6) 58 (4.7)	Canada (O,Q)	8 (2.0)	55 (3.8)	32 (3.0)	55 (3.5)	68 (3.2)	33 (3.2)		
Czech Republic 61 (4.6) 77 (3.7) 15 (3.0) 90 (2.9) 88 (3.0) 38 (4.1) England 6 (2.4) 33 (4.3) 22 (3.9) 66 (4.4) 77 (4.2) 38 (4.6) France 30 (3.6) 58 (4.3) 12 (2.6) 65 (3.9) 75 (2.9) 46 (3.5) Germany r 8 (1.8) 14 (2.2) 4 (1.4) 80 (2.8) 62 (2.8) 58 (3.1) Greece 48 (4.7) 55 (5.1) 48 (5.3) 98 (1.3) 99 (0.8) 82 (3.4) Hong Kong, SAR 13 (2.8) 34 (4.6) 21 (3.6) 58 (4.2) 79 (4.2) 33 (4.2) Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) Iceland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) Iran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 94 (1.6) 58 (4.7) Israel 55 (4.9) 71 (4.3) 61 (4.7) 70 (4.3) 91 (2.9) 77 (4.1) <t< td=""><td>Colombia</td><td>59 (4.8)</td><td>70 (4.6)</td><td>53 (4.9)</td><td>79 (4.0)</td><td>83 (3.7)</td><td>72 (4.5)</td></t<>	Colombia	59 (4.8)	70 (4.6)	53 (4.9)	79 (4.0)	83 (3.7)	72 (4.5)		
England 6 (2.4) 33 (4.3) 22 (3.9) 66 (4.4) 77 (4.2) 38 (4.6) France 30 (3.6) 58 (4.3) 12 (2.6) 65 (3.9) 75 (2.9) 46 (3.5) Germany r 8 (1.8) 14 (2.2) 4 (1.4) 80 (2.8) 62 (2.8) 58 (3.1) Greece 48 (4.7) 55 (5.1) 48 (5.3) 98 (1.3) 99 (0.8) 82 (3.4) Hong Kong, SAR 13 (2.8) 34 (4.6) 21 (3.6) 58 (4.2) 79 (4.2) 33 (4.2) Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) Iceland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) Iran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 94 (1.6) 58 (4.7) Israel 55 (4.9) 71 (4.3) 61 (4.7) 70 (4.3) 91 (2.9) 77 (4.1) Italy 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) Lithuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) Macedonia, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Cyprus	28 (4.4)	70 (4.8)	56 (4.6)	96 (2.3)	99 (0.9)	91 (3.0)		
France 30 (3.6) 58 (4.3) 12 (2.6) 65 (3.9) 75 (2.9) 46 (3.5) Germany r 8 (1.8) 14 (2.2) 4 (1.4) 80 (2.8) 62 (2.8) 58 (3.1) Greece 48 (4.7) 55 (5.1) 48 (5.3) 98 (1.3) 99 (0.8) 82 (3.4) Hong Kong, SAR 13 (2.8) 34 (4.6) 21 (3.6) 58 (4.2) 79 (4.2) 33 (4.2) Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) Iceland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) Iran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 94 (1.6) 58 (4.7) Israel 55 (4.9) 71 (4.3) 61 (4.7) 70 (4.3) 91 (2.9) 77 (4.1) Italy 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) Lithuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) Macedonia, Rep. of 59 (4.0) 76 (4.0) 55 (4.3) 89 (2.6) 85 (3.0) 79 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Sussian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)		61 (4.6)	77 (3.7)		90 (2.9)	88 (3.0)	38 (4.1)		
Germany r 8 (1.8) 14 (2.2) 4 (1.4) 80 (2.8) 62 (2.8) 58 (3.1) Greece 48 (4.7) 55 (5.1) 48 (5.3) 98 (1.3) 99 (0.8) 82 (3.4) Hong Kong, SAR 13 (2.8) 34 (4.6) 21 (3.6) 58 (4.2) 79 (4.2) 33 (4.2) Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) Iceland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) Iran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 94 (1.6) 58 (4.7) Israel 55 (4.9) 71 (4.3) 61 (4.7) 70 (4.3) 91 (2.9) 77 (4.1) Italy 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8)	England	6 (2.4)	33 (4.3)	22 (3.9)	66 (4.4)	77 (4.2)	38 (4.6)		
Greece 48 (4.7) 55 (5.1) 48 (5.3) 98 (1.3) 99 (0.8) 82 (3.4) Hong Kong, SAR 13 (2.8) 34 (4.6) 21 (3.6) 58 (4.2) 79 (4.2) 33 (4.2) Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) Iceland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) Iran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 94 (1.6) 58 (4.7) Israel 55 (4.9) 71 (4.3) 61 (4.7) 70 (4.3) 91 (2.9) 77 (4.1) Italy 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) Lithuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) Maced	France	30 (3.6)	58 (4.3)	12 (2.6)	65 (3.9)	75 (2.9)	46 (3.5)		
Hong Kong, SAR 13 (2.8) 34 (4.6) 21 (3.6) 58 (4.2) 79 (4.2) 33 (4.2) Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) Iceland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) Iran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 94 (1.6) 58 (4.7) Israel 55 (4.9) 71 (4.3) 61 (4.7) 70 (4.3) 91 (2.9) 77 (4.1) Italy 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) Itihuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) Macedonia, Rep. of 59 (4.0) 76 (4.0) 55 (4.3) 89 (2.6) 85 (3.0) 79 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Scotland 10 (3.1) 59 (4.1) 30 (3.8) 23 (3.6) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Germany	r 8 (1.8)	14 (2.2)	4 (1.4)	80 (2.8)	62 (2.8)	58 (3.1)		
Hungary 70 (3.7) 84 (2.8) 29 (3.5) 39 (4.0) 39 (3.8) 45 (3.6) [celand 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) [ran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 94 (1.6) 58 (4.7) [srael 55 (4.9) 71 (4.3) 61 (4.7) 70 (4.3) 91 (2.9) 77 (4.1) [taly 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) [xuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) [atvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) [xithuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) [xithuania 45 (4.1) 30 (4.0) 55 (4.3) 89 (2.6) 85 (3.0) 79 (3.6) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 97 (1.6) 61 (4.3) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) [xithuania 45 (4.9) 78 (4.9) 39 (4.8) 74 (3.9) 20 (3.6) [xithuania 45 (4.9) 83 (3.3) 84 (2.8) 83 (3.6) [xithuania 45 (4.9) 83 (3.3) 84 (2.8) 83 (3.6) [xithuania 45 (4.9) 83 (3.5) 64 (4.5) 36 (4.3) [xithuania 45 (4.9) 83 (3.5) 64 (4.5) 36 (4.3) [xithuania 45 (4.9) 83 (3.5) 64 (4.5) 36 (4.3) [xithuania 45 (4.9) 83 (3.5) 64 (4.5) 36 (4.3) [xithuania 45 (4.9) 83 (3.5) 64 (4.5) 36 (4.3) [xithuania 45 (4.9) 83 (3.5) 64 (4.5) 36 (4.3) [xithuania 45 (4.9) 83 (3.5) 64 (4.9) 83 (3.5) 64 (4.9) 83 (3.5) 64 (4.5) 83 (3.5) 64 (4.5) 83 (3.5) 64 (4.5) 83 (3.5) 64 (4.5) 83 (3.5) 64 (4.5) 83 (3.5) 64 (4.5) 83 (3.5) 83 (3.6) 83 (3.6) 83	Greece	48 (4.7)	55 (5.1)	48 (5.3)	98 (1.3)	99 (0.8)	82 (3.4)		
Iceland 16 (0.3) 41 (0.3) 16 (0.2) 73 (0.4) r 27 (0.3) 6 (0.1) Iran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 94 (1.6) 58 (4.7) Israel 55 (4.9) 71 (4.3) 61 (4.7) 70 (4.3) 91 (2.9) 77 (4.1) Italy 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) Lithuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) Macedonia, Rep. of 59 (4.0) 76 (4.0) 55 (4.3) 89 (2.6) 85 (3.0) 79 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8)	Hong Kong, SAR	13 (2.8)	34 (4.6)	21 (3.6)	58 (4.2)	79 (4.2)	33 (4.2)		
Iran, Islamic Rep. of 28 (3.2) 52 (4.6) 50 (4.4) 90 (2.4) 94 (1.6) 58 (4.7) Israel 55 (4.9) 71 (4.3) 61 (4.7) 70 (4.3) 91 (2.9) 77 (4.1) Italy 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) Lithuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) Macedonia, Rep. of 59 (4.0) 76 (4.0) 55 (4.3) 89 (2.6) 85 (3.0) 79 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) <	Hungary	70 (3.7)	84 (2.8)	29 (3.5)	39 (4.0)	39 (3.8)	45 (3.6)		
Israel 55 (4.9) 71 (4.3) 61 (4.7) 70 (4.3) 91 (2.9) 77 (4.1) Italy 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) Lithuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) Macedonia, Rep. of 59 (4.0) 76 (4.0) 55 (4.3) 89 (2.6) 85 (3.0) 79 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) <tr< td=""><td>Iceland</td><td>16 (0.3)</td><td>41 (0.3)</td><td>16 (0.2)</td><td>73 (0.4)</td><td>r 27 (0.3)</td><td>6 (0.1)</td></tr<>	Iceland	16 (0.3)	41 (0.3)	16 (0.2)	73 (0.4)	r 27 (0.3)	6 (0.1)		
Italy 53 (3.4) 66 (3.4) 54 (3.7) 87 (2.4) 87 (2.5) 61 (3.2) Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) Lithuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) Macedonia, Rep. of 59 (4.0) 76 (4.0) 55 (4.3) 89 (2.6) 85 (3.0) 79 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) <td>Iran, Islamic Rep. of</td> <td>28 (3.2)</td> <td>52 (4.6)</td> <td>50 (4.4)</td> <td>90 (2.4)</td> <td>94 (1.6)</td> <td>58 (4.7)</td>	Iran, Islamic Rep. of	28 (3.2)	52 (4.6)	50 (4.4)	90 (2.4)	94 (1.6)	58 (4.7)		
Kuwait 53 (3.5) 68 (3.4) 36 (3.9) 86 (2.2) 90 (2.0) 25 (3.1) Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) Lithuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) Macedonia, Rep. of 59 (4.0) 76 (4.0) 55 (4.3) 89 (2.6) 85 (3.0) 79 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) <td< td=""><td>Israel</td><td>55 (4.9)</td><td>71 (4.3)</td><td>61 (4.7)</td><td>70 (4.3)</td><td>91 (2.9)</td><td>77 (4.1)</td></td<>	Israel	55 (4.9)	71 (4.3)	61 (4.7)	70 (4.3)	91 (2.9)	77 (4.1)		
Latvia 30 (4.2) 43 (3.9) 29 (4.1) 85 (3.3) 85 (3.0) 84 (2.8) Lithuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) Macedonia, Rep. of 59 (4.0) 76 (4.0) 55 (4.3) 89 (2.6) 85 (3.0) 79 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Italy	53 (3.4)	66 (3.4)	54 (3.7)	87 (2.4)	87 (2.5)	61 (3.2)		
Lithuania 45 (4.1) 30 (4.0) 16 (3.1) 85 (3.4) 90 (2.8) 88 (2.9) Macedonia, Rep. of 59 (4.0) 76 (4.0) 55 (4.3) 89 (2.6) 85 (3.0) 79 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Kuwait	53 (3.5)	68 (3.4)	36 (3.9)	86 (2.2)	90 (2.0)	25 (3.1)		
Macedonia, Rep. of 59 (4.0) 76 (4.0) 55 (4.3) 89 (2.6) 85 (3.0) 79 (3.6) Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4)	Latvia	30 (4.2)	43 (3.9)	29 (4.1)	85 (3.3)	85 (3.0)	84 (2.8)		
Moldova, Rep. of 60 (4.4) 74 (3.9) 12 (2.8) 92 (2.3) 97 (1.6) 61 (4.3) Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Lithuania	45 (4.1)	30 (4.0)	16 (3.1)	85 (3.4)	90 (2.8)	88 (2.9)		
Morocco 61 (4.9) 78 (4.3) 37 (5.2) 95 (2.3) 95 (2.1) 44 (4.8) Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Macedonia, Rep. of	59 (4.0)	76 (4.0)	55 (4.3)	89 (2.6)	85 (3.0)	79 (3.6)		
Netherlands 21 (3.7) 60 (4.2) 33 (4.6) 39 (4.8) 74 (3.9) 20 (3.6) New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Moldova, Rep. of	60 (4.4)	74 (3.9)	12 (2.8)	92 (2.3)	97 (1.6)	61 (4.3)		
New Zealand 5 (1.7) 35 (4.3) 15 (3.1) 59 (4.1) 67 (4.0) 26 (3.9) Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Morocco	61 (4.9)	78 (4.3)	37 (5.2)	95 (2.3)	95 (2.1)	44 (4.8)		
Norway 22 (3.3) 39 (5.0) 10 (2.4) 85 (3.5) 64 (4.5) 36 (4.3) Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Netherlands	21 (3.7)	60 (4.2)	33 (4.6)	39 (4.8)	74 (3.9)	20 (3.6)		
Romania 65 (4.0) 83 (3.3) 54 (4.0) 93 (2.3) 95 (2.0) 69 (3.6) Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	New Zealand	5 (1.7)	35 (4.3)	15 (3.1)	59 (4.1)	67 (4.0)	26 (3.9)		
Russian Federation 77 (2.9) 79 (3.4) 16 (2.7) 96 (1.2) 99 (0.5) 84 (2.6) Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Norway	22 (3.3)	39 (5.0)	10 (2.4)	85 (3.5)	64 (4.5)	36 (4.3)		
Scotland 10 (3.1) 59 (4.9) 9 (3.0) 91 (3.0) 94 (2.0) 44 (5.1) Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Romania	65 (4.0)	83 (3.3)	54 (4.0)	93 (2.3)	95 (2.0)	69 (3.6)		
Singapore 55 (4.0) 66 (3.7) 17 (2.8) 69 (3.9) 84 (2.8) 32 (3.6) Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Russian Federation	77 (2.9)	79 (3.4)	16 (2.7)	96 (1.2)	99 (0.5)	84 (2.6)		
Slovak Republic 54 (4.1) 30 (3.8) 23 (3.6) 92 (2.4) 85 (2.7) 76 (3.5)	Scotland	10 (3.1)	59 (4.9)	9 (3.0)	91 (3.0)	94 (2.0)	44 (5.1)		
	Singapore	55 (4.0)	66 (3.7)	17 (2.8)	69 (3.9)	84 (2.8)	32 (3.6)		
Slovenia 40 (3.9) 57 (3.9) 26 (3.9) 80 (3.4) 73 (3.6) 73 (3.8)	Slovak Republic	54 (4.1)	30 (3.8)	23 (3.6)	92 (2.4)	85 (2.7)	76 (3.5)		
	Slovenia	40 (3.9)	57 (3.9)	26 (3.9)	80 (3.4)	73 (3.6)	73 (3.8)		
Sweden 12 (2.2) 23 (2.8) 8 (1.7) 51 (3.2) 60 (3.3) 37 (3.1)	Sweden	12 (2.2)	23 (2.8)	8 (1.7)	51 (3.2)	60 (3.3)	37 (3.1)		
Turkey 37 (4.7) 51 (4.0) 39 (4.5) 94 (1.8) 95 (1.8) 93 (1.8)	Turkey	37 (4.7)	51 (4.0)	39 (4.5)	94 (1.8)	95 (1.8)	93 (1.8)		
United States 49 (5.2) 63 (5.4) 43 (5.3) 75 (3.7) 83 (3.9) 45 (3.7)	United States	49 (5.2)	63 (5.4)	43 (5.3)	75 (3.7)	83 (3.9)	45 (3.7)		
International Avg. 40 (0.6) 57 (0.7) 30 (0.7) 79 (0.5) 82 (0.5) 56 (0.6)	International Avg.	40 (0.6)	57 (0.7)	30 (0.7)	79 (0.5)	82 (0.5)	56 (0.6)		

Background data provided by teachers.

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