## 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.

Chapter 6 presents teachers' reports on

On average, about half the students were taught reading by teachers with a university degree.
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, 30 s, 40 s, and 50 s, 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 50 s.

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 ( $\mathrm{O}, \mathrm{Q}$ ) $(91 \%)$, 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,

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

4th Grade PIRLS 2001

| Countries | Percentage of Students by Teacher Characteristics |  |  |  |  |  | Number of Years Teaching |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gender |  | Age |  |  |  |  |  |  |  |
|  | Female | Male | 29 Years <br> or Under | $\begin{aligned} & 30-39 \\ & \text { Years } \end{aligned}$ | $\begin{aligned} & 40-49 \\ & \text { Years } \end{aligned}$ | 50 Years or Older |  | All Grades |  | Fourth Grade* |
| Argentina | 92 (2.4) | 8 (2.4) | 17 (3.0) | 40 (4.9) | 27 (4.7) | 16 (3.6) |  | 14 (0.9) |  | 3 (0.3) |
| Belize | 72 (4.4) | 28 (4.4) | 39 (4.7) | 35 (4.5) | 19 (4.7) | 6 (3.1) | r | 12 (1.4) | r | 3 (0.2) |
| Bulgaria | 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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.

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

An "r" indicates data are available for 70-84\% of the students. An "s" indicates data are available for 50-69\% of the students. An "x" indicates data are available for less than 50\% of the students.
A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report achievement.

Exhibit 6.2: $\quad \begin{aligned} & \text { Number of Years Students Typically Stay with the Same } \\ & \text { Classroom Teacher }\end{aligned}$
ISC 4th Grade PIRLS 2001

| Countries | Percentage of Students |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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 | 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) |

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.

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.

Exhibit 6.3: Teachers' General or Specialized Teaching Responsibilities

| Countries | Percentage of Students Whose Teachers Reported |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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) |
| France | 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) |
| Iceland | 80 (0.3) | 8 (0.2) | 5 (0.1) | 7 (0.2) |
| Iran, Islamic Rep. of | 92 (1.8) | 2 (0.8) | 2 (0.9) | 4 (1.4) |
| Israel | 21 (3.8) | 77 (3.8) | 2 (1.0) | 0 (0.0) |
| Italy | 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) |
| Latvia | 55 (4.6) | 41 (4.5) | 0 (0.0) | 4 (1.7) |
| Lithuania | 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) |
| Turkey | 57 (4.5) | 27 (3.8) | 1 (1.0) | 14 (3.1) |
| United States | 62 (4.4) | 18 (3.5) | 9 (1.9) | 10 (2.6) |
| International Avg. | 54 (0.7) | 32 (0.6) | 7 (0.3) | 7 (0.4) |

Background data provided by teachers.

* 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.

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.

## Exhibit 6.4: Preparation to Teach Reading

4th Grade PIRLS 2001


* 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.

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.

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

| Countries | Percentage of Students Whose Teachers Studied as an Area of Emphasis |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Language | Literature | Pedagogy/ Teaching Reading | Psychology | Remedial Reading | Reading Theory | Children's <br> Language Development | Special Education |
| Argentina | 50 (5.0) | 36 (4.8) | 46 (4.8) | r 32 (5.0) | 34 (4.6) | 22 (4.3) | 37 (4.7) | 8 (2.8) |
| 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) | 22 (5.4) |
| Bulgaria | 96 (1.7) | 93 (2.1) | 94 (2.3) | 87 (2.3) | 29 (3.8) | 58 (4.6) | 59 (4.5) | 48 (4.1) |
| Canada (0,Q) | 72 (3.0) | 46 (3.7) | 51 (3.4) | 44 (3.4) | 17 (2.5) | 22 (3.1) | 26 (3.3) | 22 (2.9) |
| Colombia | 37 (4.6) | 28 (4.2) | 30 (4.5) | 17 (3.7) | 10 (3.0) | 18 (3.2) | 24 (3.2) | 10 (2.5) |
| Cyprus | 79 (3.3) | 49 (5.0) | 62 (4.3) | 60 (4.8) | 15 (3.9) | 29 (4.3) | 43 (4.3) | 13 (3.1) |
| Czech Republic | 86 (3.3) | 71 (4.1) | 74 (3.8) | 65 (4.4) | 32 (4.6) | 31 (4.4) | 23 (3.9) | 27 (4.3) |
| England | 66 (4.6) | 59 (4.8) | 41 (5.1) | 32 (4.3) | 13 (3.2) | 20 (4.2) | 36 (4.9) | 12 (3.2) |
| France | 53 (4.6) | 26 (3.2) | 32 (3.9) | 15 (3.1) | 11 (2.3) | 14 (2.7) | 12 (2.6) | 2 (1.0) |
| Germany | 51 (3.1) | 38 (2.8) | 57 (3.2) | 47 (3.3) | 14 (2.3) | 14 (2.3) | 25 (3.1) | 2 (1.0) |
| Greece | 69 (4.0) | 48 (4.8) | 47 (5.4) | 49 (5.2) | 16 (3.9) | r 16 (3.4) | 36 (4.7) | 10 (2.5) |
| 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 (2.7) |
| Hungary | 91 (2.4) | 81 (3.3) | 79 (3.7) | 68 (3.7) | 10 (2.6) | 23 (3.5) | 38 (4.1) | 5 (2.0) |
| Iceland | 54 (0.4) | 47 (0.4) | 52 (0.4) | 45 (0.4) | r 9 (0.2) | 26 (0.4) | 33 (0.4) | 9 (0.2) |
| 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 (2.0) |
| Israel | 32 (3.8) | 41 (5.2) | 37 (4.4) | r 8 (2.3) | 16 (3.2) | 28 (4.2) | 19 (3.3) | 16 (3.2) |
| Italy | 86 (2.5) | 61 (3.7) | 34 (2.9) | 35 (3.3) | 19 (2.5) | 18 (2.7) | 27 (3.5) | 23 (3.3) |
| Kuwait | 84 (2.9) | 59 (4.2) | 69 (3.8) | 37 (4.2) | 36 (4.0) | 29 (3.9) | 35 (3.8) | 16 (3.4) |
| Latvia | 74 (3.5) | 63 (4.2) | 82 (3.5) | 61 (4.7) | 12 (2.8) | 33 (4.4) | 37 (4.4) | 20 (3.7) |
| Lithuania | 85 (3.1) | 65 (3.7) | 78 (3.6) | 68 (4.2) | 17 (3.4) | 36 (4.1) | 39 (4.2) | 32 (4.4) |
| Macedonia, Rep. of | 80 (3.6) | 82 (3.3) | 81 (3.8) | 78 (3.8) | 36 (4.2) | 42 (4.3) | 50 (4.6) | 21 (3.8) |
| 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 (4.2) |
| Morocco | 87 (3.7) | 67 (5.2) | r 41 (5.2) | r 45 (5.5) | r 29 (5.1) | r 26 (4.7) | 30 (5.4) | 36 (4.6) |
| Netherlands | 47 (4.2) | 24 (4.2) | 45 (4.5) | 21 (3.7) | 16 (3.0) | 23 (4.0) | 27 (4.1) | 10 (2.7) |
| New Zealand | 65 (4.4) | 54 (4.3) | 59 (4.5) | 24 (4.2) | 17 (2.8) | 36 (4.7) | 37 (4.2) | 11 (2.6) |
| Norway | 74 (3.4) | 67 (4.0) | 73 (3.9) | 34 (4.2) | 25 (3.8) | 37 (4.0) | 56 (4.3) | 31 (3.8) |
| Romania | 94 (1.9) | 92 (2.6) | 90 (2.5) | 81 (3.4) | 62 (4.1) | 54 (4.5) | 79 (3.7) | 21 (3.4) |
| Russian Federation | 90 (1.8) | 80 (3.8) | 93 (1.7) | 78 (3.2) | 9 (2.3) | 49 (3.3) | 51 (3.4) | 5 (1.2) |
| Scotland | 83 (4.0) | 53 (5.5) | 52 (5.3) | 52 (5.0) | 11 (3.4) | 26 (4.9) | 54 (5.2) | 11 (3.4) |
| Singapore | 82 (3.2) | 45 (3.8) | 65 (4.0) | 33 (3.5) | 7 (2.3) | 20 (3.3) | 33 (4.2) | 5 (1.8) |
| Slovak Republic | 88 (2.9) | 82 (2.8) | 69 (3.8) | 63 (4.0) | 9 (2.5) | 45 (4.3) | 22 (3.7) | 9 (2.6) |
| Slovenia | 71 (4.2) | 48 (4.1) | 45 (4.4) | 50 (4.2) | 10 (2.5) | 18 (3.3) | 19 (3.0) | 12 (2.3) |
| Sweden | 79 (2.4) | 67 (2.7) | 46 (3.6) | 37 (3.4) | 9 (2.0) | 24 (3.1) | 45 (3.4) | 13 (2.5) |
| Turkey | 44 (5.1) | 33 (4.3) | 63 (4.5) | 48 (4.4) | 8 (2.6) | 29 (4.5) | 32 (4.7) | 16 (3.3) |
| United States | 70 (3.6) | 60 (3.6) | 60 (3.7) | 25 (4.0) | 27 (4.2) | 37 (4.0) | 47 (4.2) | 11 (2.9) |
| International Avg. | 71 (0.6) | 55 (0.7) | 59 (0.7) | 46 (0.7) | 19 (0.6) | 28 (0.7) | 35 (0.7) | 16 (0.5) | number, some totals may appear inconsistent.

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

[^0] achievement.
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 ( $\mathrm{O}, \mathrm{Q}$ ) ( $54 \%$ ), 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

4th Grade PIRLS 2001

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
An " $r$ " indicates data are available for $70-84 \%$ of the students. An "s" indicates data are available for $50-69 \%$ of the students. An "x" indicates data are available for less than $50 \%$ of the students.
$\begin{array}{ll}\text { Exhibit 6.7: } & \begin{array}{l}\text { Materials Schools Used as a Supplement to Their Reading } \\ \text { Instructional Programs }\end{array}\end{array}$
ISC
4th Grade PIRLS 2001

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

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

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

| Countries | Percentage of Students Whose Teachers Used |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Textbooks or a Reading Series |  |  | Workbooks or Worksheets |  |  | Both Textbooks and Workbooks Daily | Textbooks Daily and Workbooks at Least Weekly |
|  | Daily | Weekly | 1-2 Times a Month or Less | Daily | Weekly | 1-2 Times a Month or Less |  |  |
| 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 (0,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) |
| International Avg. | 68 (0.6) | 24 (0.6) | 8 (0.3) | 32 (0.6) | 46 (0.7) | 22 (0.6) | 25 (0.6) | 53 (0.7) |

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

[^1]Exhibit 6.9: Teachers' Use of Workbooks or Worksheets

| Countries | Every Day or Almost Every Day |  | Once or Twice a Week |  | Once or Twice a Month |  | Never or Almost Never |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| 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 (0,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) |

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

[^2] achievement.

## Exhibit 6.10: Use of Materials for Reading Instruction Other Than Textbooks or a Reading Series, Workbooks or Worksheets <br> 4th Grade PIRLS 2001


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

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

| Countries | Percentage of Students Whose Teachers Asked Them to Read Fiction* |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | At Least Weekly |  | Less than Weekly |  |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 78 (4.4) | 420 (7.3) | 22 (4.4) | 431 (16.7) |
| Belize | 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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 | 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 | 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) |

[^3]( ) 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 avail
able for $50-69 \%$ of the students. An " $x$ " indicates data are available for less than $50 \%$ of the students.
dents.
weekly. Response options Once or twice a month and Never or almost never were combined as Less than weekly.

[^4] achievement.

Exhibit 6.12: Types of Fiction Used for Reading Instruction
4th Grade PIRLS 2001

| Countries | Percentage of Students Whose Teachers Asked Them to Read at Least Weekly |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fables and Fairy Tales | Stories | Longer Books with Chapters | Poems | Plays |
| Argentina | 57 (4.9) | 59 (4.9) | r 7 (2.4) | 37 (4.2) | r 7 (2.3) |
| Belize | r 73 (5.5) | r 70 (5.9) | r 13 (4.1) | 53 (6.6) | r 20 (5.5) |
| Bulgaria | 74 (3.7) | 85 (3.1) | 22 (3.4) | 58 (3.9) | 2 (1.0) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 16 (2.4) | 65 (2.8) | 57 (3.1) | 12 (2.2) | 3 (1.2) |
| Colombia | 84 (3.5) | 42 (4.3) | 15 (3.2) | 47 (4.8) | 11 (2.8) |
| Cyprus | 71 (3.8) | 66 (4.9) | 14 (3.8) | 48 (5.0) | 6 (2.3) |
| Czech Republic | 41 (4.4) | 62 (4.0) | 38 (4.2) | 23 (3.4) | 13 (3.2) |
| England | 11 (3.4) | 72 (4.6) | 56 (4.6) | 29 (4.2) | 12 (3.2) |
| France | 18 (2.7) | 44 (3.9) | 45 (4.3) | 35 (3.7) | 7 (1.8) |
| Germany | 9 (1.7) | 64 (3.0) | 13 (1.9) | 12 (2.0) | 3 (1.2) |
| Greece | 27 (3.7) | 42 (4.2) | 7 (1.8) | 27 (4.0) | 3 (1.5) |
| Hong Kong, SAR | 37 (4.3) | 26 (4.0) | 8 (2.5) | 12 (2.9) | 3 (1.6) |
| Hungary | 73 (3.7) | 91 (2.2) | 20 (2.9) | 51 (4.0) | 1 (0.6) |
| Iceland | 24 (0.3) | 77 (0.4) | 62 (0.4) | 60 (0.4) | 5 (0.2) |
| Iran, Islamic Rep. of | 45 (4.3) | 22 (3.2) | 17 (2.7) | 50 (4.3) | 8 (1.9) |
| Israel | 61 (5.0) | 76 (4.1) | 35 (4.1) | 43 (4.9) | 12 (2.9) |
| Italy | 50 (3.7) | 94 (1.9) | 25 (3.5) | 37 (3.7) | 2 (1.2) |
| Kuwait | 19 (3.8) | r 29 (4.1) | $r \quad 6$ (2.3) | r 30 (3.8) | 9 (2.1) |
| Latvia | 54 (3.5) | 93 (2.3) | 32 (4.0) | 53 (4.2) | 3 (1.5) |
| Lithuania | 69 (4.1) | 77 (3.8) | 21 (3.8) | 64 (4.0) | 11 (2.6) |
| Macedonia, Rep. of | 59 (4.2) | 40 (4.3) | 8 (2.5) | 61 (3.8) | 27 (4.0) |
| Moldova, Rep. of | 73 (3.8) | 82 (3.2) | 19 (3.9) | 87 (2.9) | 19 (3.8) |
| Morocco | 28 (5.2) | 17 (4.6) | r 20 (4.8) | 53 (4.9) | 6 (2.6) |
| Netherlands | 8 (2.5) | r 51 (5.0) | r 76 (3.9) | 12 (2.8) | 0 (0.0) |
| New Zealand | 22 (3.3) | 88 (2.9) | 63 (4.2) | 54 (4.3) | 21 (3.6) |
| Norway | 29 (3.9) | 78 (3.5) | 52 (4.0) | 33 (4.0) | 3 (1.3) |
| Romania | 78 (3.5) | 74 (3.8) | 7 (2.1) | 75 (3.5) | 5 (1.9) |
| Russian Federation | 44 (2.9) | 99 (0.7) | 45 (3.5) | 66 (3.2) | 5 (1.6) |
| Scotland | 10 (3.1) | 77 (4.1) | 72 (4.5) | 21 (4.7) | 1 (0.0) |
| Singapore | 49 (4.1) | 58 (3.9) | 20 (3.1) | 26 (3.6) | 5 (1.7) |
| Slovak Republic | 65 (3.6) | 53 (3.6) | 14 (3.2) | 63 (4.1) | 1 (0.5) |
| Slovenia | 86 (3.1) | 69 (3.8) | 11 (2.6) | 29 (3.8) | 14 (3.0) |
| Sweden | 28 (3.1) | 80 (2.9) | 90 (1.8) | 4 (1.6) | 2 (0.7) |
| Turkey | 71 (3.4) | 60 (4.3) | 13 (2.9) | 64 (4.0) | 23 (3.3) |
| United States | 22 (3.9) | 88 (3.3) | 74 (4.8) | 22 (4.0) | 6 (2.2) |
| International Avg. | 45 (0.6) | 65 (0.6) | 31 (0.6) | 41 (0.7) | 8 (0.4) |

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

Exhibit 6.13: Use of Nonfiction for Reading Instruction

| Countries | Percentage of Students Whose Teachers Asked Them to Read Nonfiction* |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | At Least Weekly |  | Less than 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 | 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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 | 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) |
| International Avg. | 56 (0.7) | 501 (0.9) | 44 (0.7) | 501 (1.2) |

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

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

| Countries | Percentage of Students Whose Teachers Reported At Least Monthly |  |  |
| :---: | :---: | :---: | :---: |
|  | Having Students Watch Film Versions of Children's Books or Stories | Having Students Watch Movies, Videos, or Television to Obtain Information | Having Students Compare Material Presented in Different Media |
| Argentina | 53 (4.9) | 53 (5.3) | 67 (4.7) |
| Belize | 20 (3.9) | $r \quad 30$ (5.1) | 39 (4.6) |
| Bulgaria | 22 (3.3) | 93 (1.8) | 64 (3.8) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 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 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.
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.

## How Often Do Students Read Aloud and Independently in Class?

This section primarily describes teachers' and students' reports about classroom 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 | Percentage of Students Whose Teachers Reported Various Reading Activities |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Teach Strategies for Decoding Sounds and Words |  |  | Help Understand New Vocabulary in Texts |  |  |
|  | Daily | Weekly | Less than Weekly | Daily | Weekly | Less than Weekly |
| Argentina | r 19 (3.9) | 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) | 44 (4.2) | 15 (3.0) | 97 (1.4) | 3 (1.4) | 0 (0.0) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 17 (2.7) | 42 (3.5) | 41 (3.1) | 57 (3.8) | 39 (3.8) | 4 (1.3) |
| Colombia | 28 (3.6) | 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) | 12 (3.5) | 85 (3.6) | 80 (3.1) | 18 (3.1) | 2 (1.1) |
| England | 24 (3.6) | 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) | 21 (3.0) | 65 (3.1) | 57 (3.2) | 29 (2.8) | 14 (1.9) |
| Greece | 20 (3.5) | 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) | 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) | 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) | 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) | 24 (3.8) | 75 (3.9) | 46 (4.7) | 40 (4.4) | 14 (2.9) |
| Romania | 29 (3.8) | 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) | 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) | 25 (3.6) | 64 (4.0) | 79 (3.7) | 19 (3.5) | 2 (1.3) |
| Sweden | 2 (0.7) | 13 (2.6) | 86 (2.6) | 51 (3.8) | 37 (3.4) | 12 (2.1) |
| Turkey | 34 (3.9) | 44 (4.2) | 23 (3.5) | 65 (4.7) | 33 (4.7) | 2 (1.2) |
| United States | 29 (4.3) | 45 (3.8) | 26 (3.3) | 61 (3.8) | 37 (4.1) | 1 (1.4) |
| International Avg. | 23 (0.6) | 30 (0.7) | 47 (0.7) | 72 (0.6) | 24 (0.6) | 5 (0.3) |

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

[^5]Exhibit 6.16: Students' Reports About Teachers Reading Aloud in Class

| Countries | Every Day or Almost Every Day |  | Once or Twice a Week |  | Once or Twice a Month |  | Never or Almost Never |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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 (12.9) |
| 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 (11.3) |
| 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 (14.2) |
| 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) | number, some totals may appear inconsistent.

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

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

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

| Countries | Every Day or Almost Every Day |  | Once or Twice a Week |  | Once or Twice a Month |  | Never or Almost Never |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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 | 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) |
|  |  |  |  |  |  |  |  |  |
| International Avg. | 23 (0.2) | 478 (1.1) | 36 (0.2) | 504 (0.8) | 19 (0.2) | 511 (1.0) | 22 (0.2) | 505 (1.2) |

*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 .

[^6][^7]Exhibit 6.18: Students' Reports About Independent Reading*

| Countries | Every Day or Almost Every Day |  | Once or Twice a Week |  | Once or Twice a Month |  | Never or Almost Never |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| 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 (11.6) |
| Bulgaria | 69 (1.5) | 560 (3.8) | 26 (1.3) | 546 (4.9) | 3 (0.4) | 498 (12.7) | 2 (0.4) | ~ ~ |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 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 (10.0) |
| 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 (12.6) |
| 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 (12.1) |
| 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 (15.1) |
| 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) | $\sim$ |
| 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.
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.

Exhibit 6.19: Teachers' Reports About Reading Aloud or Silently in Class
4th Grade PIRLS 2001

| Countries | Percentage of Students Whose Teachers Reported Various Reading Activities |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Teacher Reads Aloud to Whole Class |  |  | Students Read Aloud to Whole 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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) |

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

[^8]Exhibit 6.19: Teachers' Reports About Reading Aloud or Silently in Class (Continued)

| Countries | Percentage of Students Whose Teachers Reported Various Reading Activities |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Students Read Aloud in Small Groups or Pairs |  |  | Students Read Silently on Their Own |  |  |
|  | 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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 Twice a Week |  | Once or Twice a Month |  | Never or Almost Never |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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 | 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) |

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

[^9]Exhibit 6.21: Students Answer Questions in Writing About Class Reading* ISC

4th Grade PIRLS 2001

| Countries | Every Day or Almost Every Day |  | Once or Twice a Week |  | Once or Twice a Month |  | Never or Almost Never |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| 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 (11.9) |
| Bulgaria | 40 (1.7) | 550 (4.7) | 44 (1.5) | 561 (3.6) | 9 (0.8) | 553 (7.1) | 7 (0.8) | 517 (13.4) |
| 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 (16.4) |
| 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 (10.6) |
| 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 (14.0) |
| Iceland | 26 (0.7) | 495 (2.3) | 44 (0.7) | 521 (1.7) | 16 (0.6) | 523 (3.3) | 15 (0.5) | 516 (4.0) |
| 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 (13.2) |
| Israel | 54 (1.2) | 506 (3.4) | 37 (1.1) | 517 (3.4) | 6 (0.5) | 533 (8.0) | 3 (0.4) | 522 (10.9) |
| Italy | 39 (1.2) | 528 (3.2) | 44 (1.3) | 550 (2.5) | 10 (0.6) | 550 (4.6) | 7 (0.6) | 546 (5.1) |
| Kuwait r | 48 (1.7) | 407 (3.8) | 38 (1.4) | 402 (5.4) | $8(0.6)$ | 386 (9.1) | 6 (0.6) | 365 (12.9) |
| Latvia | 34 (1.4) | 534 (3.0) | 48 (1.4) | 549 (2.9) | 10 (0.8) | 560 (6.0) | 8 (0.9) | 556 (5.5) |
| Lithuania | 39 (1.4) | 526 (2.9) | 40 (1.1) | 552 (3.2) | 10 (0.6) | 558 (5.6) | 11 (1.0) | 566 (5.0) |
| 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 (11.8) |
| Morocco | 47 (2.4) | 356 (14.0) | 42 (2.4) | 347 (10.0) | 8 (1.7) | 360 (19.5) | 3 (0.5) | 318 (25.2) |
| Netherlands | 14 (0.9) | 538 (4.3) | 37 (1.3) | 555 (3.1) | 20 (0.7) | 560 (3.2) | 29 (1.3) | 559 (2.8) |
| New Zealand | 26 (1.5) | 507 (5.1) | 45 (1.5) | 539 (3.8) | 16 (1.1) | 542 (7.1) | 14 (1.0) | 541 (6.8) |
| Norway | 19 (1.1) | 480 (5.6) | 48 (1.4) | 502 (3.4) | 17 (0.9) | 511 (5.1) | 16 (1.1) | 508 (5.2) |
| Romania | 60 (2.2) | 511 (4.7) | 34 (2.0) | 519 (6.8) | 4 (0.5) | 502 (11.3) | 3 (0.3) | 501 (18.0) |
| Russian Federation | 21 (1.4) | 503 (6.9) | 47 (1.6) | 531 (4.4) | 14 (0.9) | 539 (5.2) | 17 (1.4) | 546 (5.2) |
| Scotland | 26 (1.4) | 501 (5.2) | 50 (1.8) | 535 (4.2) | 14 (1.1) | 552 (5.5) | 10 (1.0) | 544 (7.8) |
| Singapore | 31 (1.0) | 508 (5.9) | 43 (0.9) | 536 (5.1) | 13 (0.5) | 545 (6.2) | 13 (0.7) | 536 (6.1) |
| Slovak Republic | 29 (1.8) | 503 (4.7) | 47 (1.6) | 525 (3.3) | 14 (1.0) | 530 (4.3) | 11 (1.1) | 522 (6.1) |
| Slovenia | 34 (1.4) | 492 (3.0) | 51 (1.4) | 506 (2.4) | $9(0.8)$ | 520 (4.5) | 5 (0.7) | 507 (9.5) |
| Sweden | 10 (0.7) | 540 (4.4) | 40 (1.7) | 560 (2.8) | 21 (1.0) | 564 (2.8) | 29 (1.7) | 567 (2.7) |
| Turkey | 51 (2.1) | 452 (3.8) | 40 (1.8) | 450 (5.2) | $5(0.8)$ | 445 (9.5) | 3 (0.4) | 436 (11.6) |
| United States | 35 (1.4) | 522 (5.2) | 42 (1.0) | 553 (3.8) | 13 (0.7) | 565 (5.0) | 10 (1.0) | 546 (7.1) |
| International Avg. | 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.
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.

Exhibit 6.22: Students Talk in Class with Peers About Reading
ISC
4th Grade PIRLS 2001

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

[^10]Exhibit 6.23: Students Do Projects About Class Reading*

| Countries | Every Day or Almost Every Day |  | Once or Twice a Week |  | Once or Twice a Month |  | Never or Almost Never |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| 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 (0,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) | 523 (3.2) | 38 (1.7) | 525 (4.3) |
| Slovenia | 9 (0.7) | 449 (6.7) | 20 (1.0) | 480 (3.7) | 34 (1.2) | 508 (2.5) | 36 (1.6) | 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 | 12 (1.1) | 433 (6.8) | 24 (1.3) | 442 (4.8) | 30 (1.1) | 456 (4.5) | 34 (1.8) | 456 (4.7) |
| United States | 6 (0.6) | 471 (8.0) | 13 (0.8) | 490 (5.8) | 26 (1.2) | 533 (3.9) | 55 (1.7) | 567 (3.7) |
| International Avg. | 11 (0.1) | 457 (1.3) | 20 (0.2) | 482 (0.9) | 28 (0.2) | 504 (0.8) | 41 (0.3) | 517 (1.0) |

*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.
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.

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

4th Grade PIRLS 2001

| Countries | Percentage of Students Whose Teachers Asked Them to Do Various Activities At Least Weekly |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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) |

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

[^11] achievement.

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

| Countries | Every Day or Almost Every Day |  | Once or Twice a Week |  | Once or Twice a Month |  | Never or Almost Never |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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 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) |

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

[^12] achievement.

$\begin{array}{ll}\text { Exhibit 6.26: } & \text { Teachers' Reports on Giving a Written Quiz or Test After } \\ \text { Students Read }\end{array}$
ISC
4th Grade PIRLS 2001

| Countries | Every Day or Almost Every Day |  | Once or Twice a Week |  | Once or Twice a Month |  | Never or Almost Never |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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) | $\sim$ | 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 (18.9) |
| Israel | 2 (1.4) | ~ ~ | 17 (3.2) | 499 (10.9) | 68 (3.9) | 508 (4.7) | 12 (2.8) | 528 (11.5) |
| 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 (16.7) |
| 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) | $\sim$ | 4 (1.7) | 498 (33.2) | 20 (3.3) | 532 (8.5) | 76 (3.6) | 530 (4.8) |
| Norway | 0 (0.0) | $\sim$ | 5 (1.2) | 495 (6.4) | 30 (3.7) | 496 (5.0) | 66 (4.0) | 501 (3.8) |
| Romania | 2 (1.0) | $\sim$ | 28 (3.4) | 507 (9.7) | 68 (3.6) | 512 (5.6) | 3 (1.4) | 506 (22.7) |
| Russian Federation | 2 (1.0) | $\sim$ | 6 (1.4) | 538 (7.1) | 67 (2.9) | 529 (6.1) | 25 (2.8) | 525 (4.9) |
| Scotland | 0 (0.0) | $\sim$ | 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) |
|  |  |  |  |  |  |  |  |  |
| International Avg. | 3 (0.2) | 437 (3.6) | 19 (0.5) | 496 (2.1) | 52 (0.7) | 501 (1.1) | 26 (0.5) | 508 (5.6) |

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

[^13] achievement.

## 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
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 ( $\mathrm{O}, \mathrm{Q}$ ), 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
4th Grade PIRLS 2001

| Countries | Percentage of Students in Schools |  |  |  |  | Size of School Libraries |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | With Classrooms Having Libraries |  |  |  | With a School Library | More than 500 Books | More than 10 Magazine Titles |
|  | All Classrooms | Most Classrooms | Some Classrooms | No Classrooms |  |  |  |
| 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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) | 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) |
| Iceland | r 8 (0.3) | 25 (0.4) | 63 (0.4) | 4 (0.1) | r 96 (0.2) | r 95 (0.2) | 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) | 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 (1.3) | 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) |
| International Avg. | 35 (0.5) | 22 (0.6) | 31 (0.6) | 12 (0.4) | 85 (0.5) | 65 (0.6) | 20 (0.5) |

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

[^14] achievement.

Exhibit 6.28: Students' Use of Classroom Libraries
4th Grade PIRLS 2001

| Countries | Percentage of Students Whose Teachers Reported |  |  |  |  | Size of Classroom Libraries |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Having a Library or Reading Corner in Classroom | Teachers Let Students Use the Library |  |  | If "Yes", Students Can Borrow Books | Average Number of Books | Average Number of Magazne Titles |
|  |  | Daily | Weekly | Less than Weekly |  |  |  |
| 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) | 5 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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) | 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) | 4 (1.5) |
| France | 92 (2.3) | 54 (4.0) | 30 (3.6) | 16 (3.0) | 85 (2.8) | r 84 (6.5) | 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) | 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) | 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) | 4 (0.7) |
| Latvia | 67 (4.5) | 53 (4.6) | 6 (1.8) | 41 (4.3) | 82 (4.8) | 61 (9.5) | 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) | 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) | 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) | 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) |
| International Avg. | 69 (0.6) | 37 (0.6) | 22 (0.6) | 40 (0.6) | 82 (0.6) | 60 (2.1) | 6 (0.2) |

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

[^15]Exhibit 6.29: Frequency of Students' School Library Visits
4th Grade PIRLS 2001

| Countries | Percentage of Students Whose Teachers Reported |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | This School Does Not Have a Library | Library Visits |  |  |  |
|  |  | Every Day or Almost Every Day | Once or Twice a Week | Once or Twice a Month | Never or Almost Never |
| 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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 | 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) |
| International Avg. | 16 (0.5) | 10 (0.4) | 43 (0.7) | 23 (0.6) | 7 (0.4) |

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

Exhibit 6.30: Students' Overall Library Use in School*

*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.

[^16] students.

[^17]
## 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 ( $\mathrm{O}, \mathrm{Q}$ ), 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 ( $\mathrm{O}, \mathrm{Q}$ ), 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 ( $\mathrm{O}, \mathrm{Q}$ ), 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 ( $\mathrm{O}, \mathrm{Q}$ ), 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
4th Grade PIRLS 2001

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

[^18] achievement.

Exhibit 6.32: Students' Reports on Computer Use
4th Grade PIRLS 2001

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

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

## 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
4th Grade PIRLS 2001

| Countries | 3 or More Times a Week |  | 1-2 Times a Week |  | Less than Once a Week |  | Never |  | Average Hours per Day Spent on Reading for Homework |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |  |
| Argentina | 51 (1.6) | 435 (6.5) | 24 (1.1) | 449 (5.7) | 18 (1.2) | 435 (6.9) | 7 (0.6) | 402 (10.4) | $r \quad 0.6$ (0.01) |
| Belize | 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 (0,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 | 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 | 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) | $\sim$ | 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) | $\sim$ | 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) | $\sim \sim$ | 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) |
| International Avg. | 60 (0.3) | 500 (0.7) | 22 (0.2) | 507 (1.1) | 14 (0.2) | 496 (1.1) | 4 (0.1) | 506 (2.9) | 0.6 (0.00) |

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

[^19] achievement.

Exhibit 6.34: Index of Reading for Homework (RFH)


## 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.

[^20][^21] 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 para-graph-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
4th Grade PIRLS 2001

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

[^22] achievement.

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

| Countries | Percentage of Students Whose Teachers Reported Using Portfolios to Monitor Students' Progress |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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 | 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) |

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

[^23] achievement.

Exhibit 6.37: Approaches to Assessing Students' Performance in Reading
4th Grade PIRLS 2001

| Countries | Percentage of Students for Whose Teachers Reported Using at Least Weekly |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MultipleChoice Questions on Material Read | Short- <br> Answer Written Questions on Material Read | ParagraphLength Written Responses on Material Read | Listening to Students Read Aloud | Oral Questioning of Students | Students <br> Giving an Oral <br> Summary/ <br> Report on <br> Material Read |
| Argentina | 40 (4.5) | 73 (4.7) | r 32 (4.6) | 87 (3.4) | 91 (2.8) | 68 (4.7) |
| 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 ( $\mathrm{O}, \mathrm{Q}$ ) | 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) |
| 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) |
| 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) |
| 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) |
| 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) |
| International Avg. | 40 (0.6) | 57 (0.7) | 30 (0.7) | 79 (0.5) | 82 (0.5) | 56 (0.6) |

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

[^24]
[^0]:    A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report

[^1]:    A dash ( - ) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report achievement.

[^2]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

[^3]:    *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

[^4]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

[^5]:    A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report achievement.

[^6]:    () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
    An " $r$ " indicates data are available for 70-84\% of the students. An " $s$ " indicates data are available for $50-69 \%$ of the students. An " $x$ " indicates data are available for less than $50 \%$ of the students.

[^7]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report achievement.

[^8]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report achievement.

[^9]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report achievement.

[^10]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report achievement.

[^11]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

[^12]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

[^13]:    A dash (-) indicates data are not available. A tilde (~) indicates insufficient data to repor

[^14]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

[^15]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report achievement.

[^16]:    ( ) 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 avail able for $50-69 \%$ of the students. An " $x$ " indicates data are available for less than $50 \%$ of the

[^17]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report achievement.

[^18]:    A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report

[^19]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

[^20]:    () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
    An " $r$ " indicates data are available for $70-84 \%$ of the students. An " $s$ " indicates data are available for $50-69 \%$ of the students. An " $x$ " indicates data are available for less than $50 \%$ of the students.

[^21]:    A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report

[^22]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

[^23]:    A dash (-) indicates data are not available. A tilde (~) indicates insufficient data to report

[^24]:    A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report achievement.

