## Chapter 8



## Chapter 8

## Students' Reading

 Attitudes, Self-Concept, and Out-of-School ActivitiesLiteracy activities at home and in school encourage and reinforce students' positive reading attitudes. The reading curriculum in most countries emphasizes students' positive attitudes toward reading as a major objective. Students who enjoy reading usually read more frequently, thus broadening their knowledge of text situations, expanding their literary experiences, and improving their comprehension skills.

## What Are Students' Attitudes Toward Reading?

To examine fourth-graders' views on reading for enjoyment and appreciating books, PIRLS created an Index of Students' Attitudes Toward Reading. The index was based on students' agreement with the following statements related to reading:

- I read only if I have to (reverse coded).
- I like talking about books with other people.
- I would be happy if someone gave me a book as a present.
- I think reading is boring (reverse coded).
- I enjoy reading.

Responses to each statement, ranging from disagree a lot to agree a lot on a 4-point scale, were averaged across each student. Students in the high category agreed or agreed a lot with all of the statements about reading. Students in the low category of students' attitudes toward reading
 disagreed or disagreed a lot with all of the statements. The medium level of the index indicates all other combinations of responses. The results are shown in Exhibit 8.1.

Student attitudes toward reading were generally positive. About half the students, on average, internationally, were categorized in the high category of the index, and over 90 percent of the students were in either the high or medium category. At least 60 percent of the students in Iran, Moldova, Macedonia, Greece, Romania, and Bulgaria were at the high level; the country with the largest percentage of students at this level was Iran with 71 percent. Within all countries, students with the most positive attitudes had the highest reading achievement.

Exhibit 8.2 presents the percentage of boys and girls at each of the levels in the index. More girls than boys had positive attitudes in all countries. There were significantly greater percentages of girls in the high cat-
egory, whereas there were greater percentages of boys than girls in the medium and low categories. On average, internationally, 60 percent of the students in the high category were girls and 42 percent boys. Countries with the greatest differences (at least $24 \%$ ) between girls and boys at the high level included Cyprus, Latvia, Lithuania, The Netherlands, Singapore, and Slovenia.

## What Are Students' Perceptions of Their Reading Ability?

## Student attitudes toward reading were generally positive.

Students possess self-awareness of their abilities and limitations in their coursework at school. Positive perceptions of their reading ability may influence their perseverance with a task, or may encourage their engagement in activities related to academic performance.

To examine students' conceptions of their reading ability, PIRLS asked students to respond to the following statements about how well they read:

- Reading is very easy for me.
- I do not read as well as other students in my class (reverse coded).
- Reading aloud is very hard for me (reverse coded).

Response options ranged from disagree a lot to agree a lot on a 4-point scale. PIRLS combined students' responses to these three statements to form an Index of Students' Reading Self-Concept. Students in the high category agreed or agreed a lot with all three statements about their perceived competence in reading. Students in the low category disagreed or disagreed a lot with all three statements. The medium level of the index indicates all other combinations of responses. Results of this index are presented in Exhibit 8.3.

Less than half the students, internationally ( $40 \%$ ), were at the high level of the index with percentages of students for individual countries ranging from 23 to 56 percent. In six countries - Italy, Sweden, Bulgaria, Slovenia, Cyprus, and Israel - more than half of the students were in the high category. On average, across countries, the majority of students were in the medium cat-
egory ( $55 \%$ ), while only 5 percent were in the low category. Students with a positive reading self-concept had higher achievement in each of the PIRLS countries.

The percentages of boys and girls at each level of the index are shown in Exhibit 8.4. On average, internationally, more girls were in the high category than boys ( $43 \%$ vs. $36 \%$ ). Italy and Sweden were the only countries with more than 50 percent of both girls and boys in the high category. In most countries, more girls than boys had positive reading self-concepts. There were no significant gender differences at any level in Iceland and The Netherlands. In addition, England, France, Scotland, and the United States did not have significantly different percentages of girls and boys at the high or medium levels.

Exhibit 8.1: Index of Students' Attitudes Toward Reading (SATR)


Iran, Islamic Rep. of
Moldova, Rep. of
Macedonia, Rep. of
Greece
Romania
Bulgaria
Turkey
Slovenia
France
Cyprus
Italy
Russian Federation
Canada (O,Q)
Sweden
Singapore
New Zealand
Germany
Hungary
Hong Kong, SAR
Kuwait r

| Iceland |
| :--- |
| Morocco |

Scotland
Colombia
Lithuania
Israel
England
Norway
Slovak Republic
Netherlands
Argentina r
Latvia
United States
Belize

$$
59
$$

5
50

48


| $71(1.9)$ |
| :--- |
| $65(1.9)$ |

$62(1.5)$
$61(1.7)$
$60(1.7)$

| $60(1.7)$ |
| :--- |
| $60(1.6)$ |
| $59(1.5)$ |


| $58(1.1)$ |
| :--- |
| $57(1.3)$ |


| $56(1.3)$ |
| :--- | :--- |
| $54(1.8)$ |


| $54(1.8)$ |
| :--- |
| $54(1.0)$ |
| $54(1.1)$ |


| $54(1.1)$ |
| :--- |
| $54(1.3)$ |


| $50(1.2)$ |
| :--- |
| $49(1.2)$ |

49 (1.0)
$47(1.3)$
$47(1.6)$

| $46(1.5)$ |
| :--- |
| 44 |
| $(1.4)$ |


| $44(1.4)$ |
| :--- |
| $44(1.4)$ |


| $44(1.2)$ |
| :--- |
| $44(1.5)$ |

43 (1.3)
43 (1.3)


## Index of Students' Attitudes Toward Reading (SATR)

Based on students' agreement with the following: I read only if I have to; I like talking about books with other people; I would be happy if someone gave me a book as a present; I think reading is boring; and I enjoy reading. Average is computed on a 4-point scale: Disagree a lot $=1$,

[^0][^1][^2] achievement.

Exhibit 8.2: Index of Students' Attitudes Toward Reading (SATR) by Gender

| Countries | $\begin{gathered} \text { High } \\ \text { SATR } \\ \text { Percent of Students } \end{gathered}$ |  |  | Medium SATR <br> Percent of Students |  |  | Low <br> SATR <br> Percent of Students |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Girls |  | Boys | Girls | Boys |  | Girls | Boys |  |
| Argentina r | 50 (1.6) | - | 36 (1.5) | 48 (1.5) | 57 (1.3) | $\bigcirc$ | 2 (0.3) | 7 (1.0) | - |
| Belize | 36 (1.8) | - | 29 (1.6) | 60 (2.2) | 64 (1.6) |  | 4 (0.8) | 6 (0.8) | - |
| Bulgaria | 70 (1.6) | - | 49 (2.0) | 28 (1.5) | 45 (1.9) | - | 2 (0.4) | 6 (0.8) | - |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 65 (1.3) | - | 43 (1.2) | 32 (1.2) | 44 (1.2) | - | 4 (0.5) | 13 (0.7) | - |
| Colombia | 52 (1.7) | - | 42 (2.2) | 46 (1.6) | 55 (2.0) | - | 2 (0.4) | 3 (0.5) | - |
| Cyprus | 69 (1.8) | - | 45 (1.9) | 28 (1.7) | 45 (1.5) | - | 2 (0.5) | 10 (1.1) | - |
| Czech Republic | 49 (1.5) | - | 33 (1.6) | 47 (1.4) | 57 (1.7) | - | 4 (0.7) | 10 (1.0) | - |
| England | 53 (1.9) | - | 35 (1.5) | 39 (1.6) | 47 (1.5) | - | 8 (0.9) | 18 (1.3) | - |
| France | 65 (1.5) | - | 51 (1.4) | 33 (1.6) | 44 (1.4) | - | $2(0.4)$ | 5 (0.5) | - |
| Germany | 61 (1.2) | - | 40 (1.1) | 35 (1.1) | 45 (0.8) | - | 4 (0.4) | 15 (0.8) | - |
| Greece | 68 (2.1) | - | 55 (2.1) | 29 (1.9) | 37 (1.8) | - | 3 (0.6) | 8 (0.9) | - |
| Hong Kong, SAR | 60 (1.3) | - | 38 (1.3) | 39 (1.3) | 54 (1.4) | - | 2 (0.3) | 8 (0.6) | - |
| Hungary | 59 (1.4) | - | 40 (1.6) | 35 (1.2) | 46 (1.4) | - | 6 (0.6) | 14 (1.2) | - |
| Iceland | 59 (1.5) | - | 39 (1.3) | 39 (1.4) | 51 (1.5) | - | $2(0.4)$ | 9 (0.8) | - |
| Iran, Islamic Rep. of | 74 (2.1) | - | 67 (2.6) | 24 (2.0) | 30 (2.4) | - | $2(0.4)$ | 3 (0.5) |  |
| Israel | 53 (1.6) | - | 35 (1.6) | 41 (1.5) | 54 (1.5) | - | 5 (0.7) | 10 (0.9) | - |
| Italy | 67 (1.5) | - | 46 (1.4) | 30 (1.4) | 45 (1.4) | - | 3 (0.5) | 9 (0.8) | - |
| Kuwait s | 55 (1.6) | - | 42 (2.0) | 43 (1.6) | 51 (2.0) | - | $2(0.3)$ | 6 (0.7) | - |
| Latvia | 57 (1.9) | - | 29 (1.8) | 39 (1.8) | 58 (1.7) | - | 4 (0.6) | 12 (1.0) | - |
| Lithuania | 59 (1.7) | - | 33 (1.9) | 38 (1.5) | 58 (1.9) | - | 3 (0.6) | 10 (0.9) | - |
| Macedonia, Rep. of | 68 (1.7) | - | 56 (1.8) | 31 (1.7) | 43 (1.8) | - | 0 (0.1) | 1 (0.4) | - |
| Moldova, Rep. of | 72 (2.2) | - | 59 (2.0) | 27 (2.1) | 39 (2.0) | - | 1 (0.3) | 3 (0.5) | - |
| Morocco | 54 (2.7) | - | 43 (2.4) | 43 (2.6) | 53 (2.4) | - | 2 (0.9) | 4 (1.1) | - |
| Netherlands | 57 (1.6) | - | 30 (1.6) | 37 (1.3) | 48 (1.2) | - | 6 (0.6) | 23 (1.3) | - |
| New Zealand | 60 (1.7) | - | 43 (1.6) | 36 (1.7) | 46 (1.6) | - | 4 (0.7) | 12 (1.2) | - |
| Norway | 55 (1.4) | - | 33 (1.6) | 40 (1.3) | 54 (1.5) | - | 5 (0.6) | 13 (1.2) | - |
| Romania | 67 (1.8) | - | 54 (2.1) | 33 (1.7) | 44 (2.1) | - | 1 (0.2) | 2 (0.5) | - |
| Russian Federation | 63 (1.8) | - | 46 (2.0) | 35 (1.8) | 49 (1.8) | - | 2 (0.4) | 5 (0.6) | - |
| Scotland | 56 (1.6) | - | 38 (1.8) | 39 (1.6) | 45 (1.5) | - | 6 (0.7) | 17 (1.5) | - |
| Singapore | 66 (1.4) | - | 42 (1.3) | 33 (1.3) | 51 (1.3) | - | $2(0.3)$ | 7 (0.5) | - |
| Slovak Republic | 54 (1.8) | - | 33 (1.7) | 43 (1.7) | 57 (1.5) | - | 4 (0.6) | 9 (0.9) | - |
| Slovenia | 71 (1.7) | - | 46 (1.7) | 27 (1.6) | 43 (1.5) | - | $2(0.4)$ | 10 (1.2) | - |
| Sweden | 65 (1.4) | - | 43 (1.5) | 32 (1.3) | 46 (1.2) | - | 3 (0.4) | 11 (0.9) | - |
| Turkey | 66 (2.0) | - | 52 (1.5) | 34 (1.9) | 46 (1.3) | - | 1 (0.1) | 1 (0.3) | - |
|  | 52 (1.6) | - | 33 (1.3) | 40 (1.1) | 49 (1.5) | - | 8 (1.1) | 19 (1.2) | - |
|  |  |  |  |  |  |  |  |  |  |
| International Avg. | 60 (0.3) | - | 42 (0.3) | 37 (0.3) | 49 (0.3) | - | 3 (0.1) | 9 (0.2) | - |

Significantly greater percentage than other gender

## Index of Students' Attitudes Toward Reading (SATR)

Based on students' agreement with the following: I read only if I have to; I like talking about books with other people; I would be happy if someone gave me a book as a present; I think reading is boring; and I enjoy reading. Average is computed on a 4 -point scale: Disagree a lot $=1$,

Disagree a little $=2$, Agree a little $=3$, and Agree a lot $=4$. Responses for negative statement were reverse-coded. High level indicates an average greater than 3 through 4 . Medium level indicates an average of 2 through 3 . Low level indicates an average of 1 to less than 2 .

[^3]number, some totals may appear inconsistent.

[^4]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 8.3: Index of Students' Reading Self Concept (SRSC)

| Countries | $\begin{aligned} & \text { High } \\ & \text { SRSC } \end{aligned}$ |  | Medium SRSC |  | $\begin{aligned} & \text { Low } \\ & \text { SRSC } \end{aligned}$ |  | Percentage of Students at High Level of SRSC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |  |
| Italy | 56 (1.2) | 558 (2.3) | 41 (1.1) | 523 (3.3) | 4 (0.4) | 498 (6.2) | - |
| Sweden | 54 (0.8) | 581 (2.2) | 43 (0.8) | 541 (2.7) | 2 (0.2) | ~ ~ | 0 |
| Bulgaria | 52 (1.4) | 583 (3.3) | 44 (1.3) | 524 (4.4) | 4 (0.4) | 500 (9.4) | $\bigcirc$ |
| Slovenia | 52 (1.1) | 528 (2.1) | 45 (1.1) | 478 (2.8) | 3 (0.3) | 438 (11.2) | $\bigcirc$ |
| Cyprus | 51 (0.8) | 521 (3.6) | 45 (0.8) | 471 (3.0) | 3 (0.4) | 444 (10.7) | - |
| Israel | 51 (1.0) | 535 (2.7) | 46 (0.9) | 486 (3.5) | 3 (0.3) | 458 (10.1) | -- 0 |
| Greece | 49 (1.0) | 544 (3.7) | 48 (1.1) | 510 (3.8) | 3 (0.3) | 478 (14.1) | - |
| Norway | 49 (1.1) | 531 (3.3) | 47 (1.1) | 477 (3.6) | 4 (0.4) | 412 (8.7) | $\bigcirc$ |
| Netherlands | 48 (0.9) | 568 (2.8) | 47 (0.9) | 546 (2.5) | 5 (0.4) | 508 (5.4) | 0 |
| Iceland | 48 (0.8) | 536 (1.8) | 49 (0.8) | 497 (1.9) | 3 (0.3) | 452 (8.4) | 0 |
| Hungary | 47 (1.0) | 572 (2.2) | 46 (1.1) | 524 (2.4) | 7 (0.5) | 486 (5.0) | - |
| Kuwait | 46 (0.9) | 424 (4.0) | 50 (0.9) | 382 (4.9) | 4 (0.4) | 364 (10.1) | 0 |
| United States | 46 (1.3) | 569 (3.7) | 47 (1.1) | 525 (4.5) | 7 (0.6) | 490 (7.0) | 0 |
| Canada (0,Q) | 46 (0.8) | 570 (2.5) | 49 (0.7) | 528 (2.7) | 5 (0.3) | 490 (5.3) | 0 |
| Macedonia, Rep. of | 45 (1.3) | 490 (3.9) | 53 (1.3) | 413 (5.1) | 2 (0.3) | ~ ~ | 0 |
| Germany | 43 (0.8) | 564 (2.4) | 50 (0.8) | 526 (2.0) | 6 (0.3) | 494 (4.0) | 0 |
| Romania | 42 (1.5) | 545 (5.1) | 54 (1.4) | 493 (4.9) | 4 (0.7) | 452 (12.7) | 0 |
| Turkey | 40 (1.3) | 484 (4.0) | 58 (1.3) | 429 (3.7) | 3 (0.3) | 393 (13.6) | - 0 |
| Slovak Republic | 37 (1.2) | 544 (3.0) | 56 (1.2) | 506 (3.1) | 6 (0.5) | 481 (6.5) | 0 |
| Russian Federation | 36 (1.2) | 552 (3.7) | 57 (1.0) | 518 (4.5) | 7 (0.7) | 494 (12.5) | --...-- |
| Scotland | 36 (1.4) | 560 (4.0) | 57 (1.3) | 515 (4.2) | 8 (0.6) | 486 (5.7) | ------0 |
| Singapore | 35 (0.9) | 556 (4.7) | 59 (0.8) | 516 (5.4) | 5 (0.3) | 487 (6.6) | ------ 0 |
| Moldova, Rep. of | 34 (1.8) | 523 (5.5) | 60 (1.8) | 479 (3.7) | 6 (0.6) | 465 (7.2) | $\bigcirc$ |
| Czech Republic | 33 (1.0) | 560 (3.4) | 60 (1.0) | 530 (2.5) | 6 (0.5) | 496 (5.1) | 0 |
| England | 33 (0.9) | 588 (3.6) | 58 (1.0) | 542 (3.8) | $9(0.5)$ | 493 (6.6) | 0 |
| Lithuania | 32 (1.0) | 572 (3.5) | 60 (1.1) | 533 (2.7) | 8 (0.6) | 514 (5.3) | 0 |
| New Zealand | 32 (0.9) | 572 (3.9) | 61 (1.0) | 514 (4.3) | 7 (0.5) | 483 (8.5) | 0 |
| Iran, Islamic Rep. of | 31 (1.7) | 452 (4.7) | 66 (1.6) | 399 (3.8) | 3 (0.3) | 361 (12.2) | ----- |
| Morocco | 31 (1.8) | 386 (13.9) | 65 (1.8) | 336 (8.8) | 4 (0.7) | 350 (24.4) | ------- |
| Latvia | 28 (1.1) | 579 (2.7) | 60 (1.1) | 535 (2.5) | 11 (0.7) | 517 (3.9) | ----- |
| France | 28 (0.9) | 549 (3.0) | 66 (0.9) | 521 (2.6) | 6 (0.4) | 486 (6.0) | -- |
| Argentina | 26 (1.2) | 473 (6.5) | 69 (1.2) | 420 (5.2) | 5 (0.5) | 396 (12.8) | --- 0 |
| Colombia | 23 (1.1) | 467 (6.2) | 72 (1.1) | 411 (4.3) | $4(0.5)$ | 412 (9.8) | 0 |
| Belize | 23 (1.2) | 380 (7.4) | 69 (1.3) | 317 (5.0) | 8 (0.6) | 296 (10.2) | 0 |
| Hong Kong, SAR | 23 (0.8) | 549 (3.7) | 69 (0.8) | 525 (3.2) | $9(0.5)$ | 509 (4.3) | - |
| International Avg. | 40 (0.2) | 530 (0.7) | 55 (0.2) | 485 (0.7) | 5 (0.1) | 457 (1.6) | -......---- |
|  |  |  |  |  |  |  | $25 \quad 50$ |

## Index of Students' <br> Reading Self <br> Concept (SRSC)

Based on students' agreement with the following: reading is
very easy for me; I do not read as well as other students in
my class; and reading aloud is very hard for me. Average is
computed on a 4-point scale: Disagree a lot $=1$, Disagree a
little $=2$, Agree a little $=3$, and Agree a lot $=4$. Responses
for negative statement were reverse-coded. High indicates an average of greater than 3 through 4. Medium indicates an average of 2 through 3. Low indicates an average of 1 to less than 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 avail-
able for $50-69 \%$ of the students. An " $x$ " indicates data are available for less than $50 \%$ of the students.

[^5] achievement.

Exhibit 8.4: Index of Students' Reading Self Concept (SRSC) by Gender

| Countries | High <br> SRSC <br> Percent of Students |  |  | Medium SRSC <br> Percent of Students |  |  | Low SRSC <br> Percent of Students |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Girls |  | Boys | Girls | Boys |  | Girls | Boys |  |
| Argentina r | 27 (1.4) | - | 24 (1.5) | 68 (1.4) | 71 (1.6) |  | 4 (0.6) | 6 (0.8) |  |
| Belize | 25 (1.4) | - | 21 (1.4) | 68 (1.5) | 70 (1.5) |  | 7 (0.7) | 9 (0.9) |  |
| Bulgaria | 59 (1.6) | - | 44 (1.6) | 38 (1.5) | 50 (1.7) | - | 3 (0.4) | 6 (0.7) | $\bigcirc$ |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 48 (1.1) | - | 43 (1.1) | 47 (1.0) | 51 (1.0) | - | 5 (0.4) | 6 (0.5) | - |
| Colombia | 25 (1.3) | - | 21 (1.4) | 71 (1.3) | 74 (1.5) |  | 4 (0.7) | 5 (0.7) |  |
| Cyprus | 58 (1.3) | - | 44 (1.3) | 40 (1.3) | 51 (1.4) | - | 2 (0.4) | 5 (0.7) | - |
| Czech Republic | 36 (1.7) | - | 31 (1.2) | 58 (1.7) | 63 (1.3) | - | 6 (0.8) | 7 (0.8) |  |
| England | 34 (1.3) |  | 32 (1.4) | 59 (1.3) | 57 (1.4) |  | 7 (0.6) | 11 (0.8) | - |
| France | 29 (1.4) |  | 27 (1.2) | 65 (1.2) | 67 (1.2) |  | 5 (0.6) | 7 (0.6) |  |
| Germany | 46 (1.1) | - | 40 (1.1) | 48 (1.1) | 53 (1.1) | - | 6 (0.5) | 7 (0.5) |  |
| Greece | 52 (1.5) | - | 46 (1.5) | 46 (1.6) | 51 (1.7) |  | 2 (0.4) | 4 (0.8) |  |
| Hong Kong, SAR | 25 (1.4) | - | 20 (0.9) | 69 (1.3) | 69 (1.0) |  | 6 (0.5) | 11 (0.6) | - |
| Hungary | 52 (1.3) | - | 42 (1.3) | 42 (1.2) | 50 (1.5) | - | 6 (0.5) | 9 (0.8) | - |
| Iceland | 49 (1.0) |  | 47 (1.2) | 49 (1.0) | 49 (1.2) |  | 3 (0.4) | 4 (0.4) |  |
| Iran, Islamic Rep. of | 35 (2.3) | - | 28 (2.1) | 62 (2.2) | 70 (2.0) | - | 3 (0.3) | 3 (0.5) |  |
| Israel | 54 (1.4) | - | 47 (1.4) | 43 (1.3) | 49 (1.4) | - | 3 (0.5) | 3 (0.4) |  |
| Italy | 61 (1.4) | - | 51 (1.4) | 37 (1.4) | 44 (1.2) | - | 2 (0.4) | 5 (0.6) | - |
| Kuwait s | 49 (1.4) | - | 44 (1.1) | 48 (1.1) | 52 (1.3) | - | 3 (0.4) | 5 (0.7) |  |
| Latvia | 33 (1.5) | - | 24 (1.1) | 56 (1.6) | 64 (1.1) | - | 11 (0.9) | 12 (0.9) |  |
| Lithuania | 37 (1.4) | - | 28 (1.4) | 55 (1.5) | 64 (1.4) | - | 8 (0.8) | 7 (0.7) |  |
| Macedonia, Rep. of | 50 (1.8) | - | 41 (1.5) | 49 (1.8) | 57 (1.5) | - | 1 (0.3) | 3 (0.5) | - |
| Moldova, Rep. of | 40 (2.3) | - | 27 (1.8) | 56 (2.1) | 64 (1.9) | - | 4 (0.6) | 9 (0.9) | - |
| Morocco | 35 (2.2) | - | 27 (1.9) | 62 (2.1) | 67 (2.1) | - | 3 (0.6) | 5 (0.9) | - |
| Netherlands | 49 (1.3) |  | 47 (1.3) | 46 (1.3) | 47 (1.3) |  | 6 (0.6) | 5 (0.6) |  |
| New Zealand | 34 (1.4) | - | 30 (1.3) | 60 (1.3) | 62 (1.6) |  | 5 (0.7) | 8 (0.9) | - |
| Norway | 52 (1.4) | - | 46 (1.4) | 44 (1.4) | 50 (1.5) | - | 5 (0.5) | 4 (0.5) |  |
| Romania | 46 (1.8) | - | 37 (1.6) | 51 (1.7) | 57 (1.6) | - | 3 (0.7) | 6 (0.9) | - |
| Russian Federation | 40 (1.6) | - | 32 (1.4) | 54 (1.4) | 60 (1.3) | - | 6 (0.7) | 8 (0.9) |  |
| Scotland | 37 (1.9) |  | 34 (1.7) | 56 (2.0) | 57 (1.6) |  | 7 (0.8) | 9 (0.8) | - |
| Singapore | 37 (1.2) | - | 33 (1.0) | 58 (1.1) | 61 (0.9) |  | 5 (0.3) | 6 (0.5) | - |
| Slovak Republic | 42 (1.6) | - | 33 (1.5) | 53 (1.6) | 59 (1.6) | - | 5 (0.6) | 8 (0.7) | - |
| Slovenia | 58 (1.6) | - | 45 (1.6) | 40 (1.6) | 51 (1.5) | - | 2 (0.4) | 4 (0.5) | - |
| Sweden | 57 (1.3) | - | 51 (1.6) | 41 (1.2) | 46 (1.5) | - | 2 (0.3) | 3 (0.3) |  |
| Turkey | 45 (1.7) | - | 35 (1.4) | 54 (1.8) | 62 (1.3) | - | 2 (0.4) | 4 (0.4) | - |
| United States | 47 (1.5) |  | 45 (1.8) | 47 (1.4) | 47 (1.6) |  | 5 (0.6) | 8 (0.8) | - |
|  |  |  |  |  |  |  |  |  |  |
| International Avg. | 43 (0.3) | - | 36 (0.2) | 53 (0.3) | 58 (0.2) | - | 5 (0.1) | 6 (0.1) | - |

Significantly greater percentage than other gender

## Index of Students' <br> Reading Self <br> Concept (SRSC)

> Based on students' agreement with the following: reading is very easy for me; I do not read as well as other students in my class; and reading aloud is very hard for me. Average is computed on a 4 -point scale: Disagree a lot $=$ 1. Disagree a little $=2$, Agree a little $=3$, and Agree a lot $=4$. Responses
for negative statement were reverse-coded. High indicates an average of greater than 3 through 4 . Medium indicates an average of 2 through 3 . Low indicates an average of 1 to less than 2.
( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

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

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.

## How Often Do Students Engage in Literacy Activities Outside of School?

Students engage in many literacy activities outside of school, whether they are reading or talking about reading with members of their families. At home, students read texts in various formats for many purposes. They may read stories, novels, or comic books for recreation, or they may read books, magazines, newspapers, or other nonfiction materials for information. Engagement in reading activities outside of school can support students' intrinsic motivation to read and learn, and broaden the scope of students' background knowledge.

To learn more about students' reading habits, PIRLS asked students how often they read different types of text when they were not in school. Students' reports of their general reading habits are presented in Exhibit 8.5. Internationally, on average, 40 percent of students reported reading for fun every day or almost every day, and 69 percent at least once a week. In Bulgaria, France, Iceland, Lithuania, Moldova, and the Russian Federation, more than half the students reported reading for fun every day or almost every day. In nearly all countries, students who reported reading for fun outside of school daily or almost daily had higher average reading achievement than those reading for fun less frequently.

Exhibits 8.6 through 8.9 provide information on the frequency with which students read different types of text. Students' reports of how often they read stories or novels outside of school are shown in Exhibit 8.6. On average, internationally, nearly two-thirds of students ( $63 \%$ ) reported reading stories or novels at least once a week. Countries with the highest percentages of students reading stories or novels every day or almost every day included the Colombia, Russian Federation, and Singapore. In the Czech Republic, Germany, Italy, Latvia, Norway, and the Slovak Republic, more than half of the students reported reading stories or novels twice a month or less.

Exhibit 8.7 presents students' reports of how often they read stories or novels outside of school by gender. Of the students who reported reading stories or novels every day or almost every day in each country, the percentage of girls was equal to or higher than the percentage of boys. Only in Cyprus, Iran,

Morocco, and Romania was the percentage of girls not significantly different from the percentage of boys. On average, internationally, more than two-thirds of the girls $(70 \%)$ and more than half of the boys ( $55 \%$ ) read stories or novels at least once a week. More than 50 percent of girls in Italy and the Slovak Republic reported reading stories or novels twice a month or less. Half or more of the boys in Germany, Italy, and the Slovak Republic never or almost never read stories or novels outside of school.

Students' reports on how often they read for information outside of school (books that explain things, magazines, newspapers, and directions or instructions) are presented in Exhibit 8.8. Internationally, on average, 18 percent of the students reported reading for information every day or almost every day. However, most students reported doing this kind of reading once or twice a week. Students in The Netherlands and Sweden reported doing relatively little reading for information. These countries had the smallest percentages of students who reported reading for information at least once or twice a week ( $27 \%$ and $37 \%$, respectively) and the largest percentages reporting never or almost never reading such texts once or twice a month or less ( $72 \%$ and $63 \%$, respectively). Only in Argentina, Bulgaria, Colombia, Kuwait, Macedonia, and Turkey did more than one-quarter of students report reading informational text daily.

Exhibit 8.9 shows students' reports of reading for information outside of school by gender. Internationally, 62 percent of girls and 59 percent of boys read for information at least once a week. More than three-quarters of both girls and boys in Colombia and Macedonia read for information at least once a week. Gender differences in reading for information were less pronounced in students' reading for information than in students' reading of stories or novels. Significantly greater percentages of boys in Cyprus, Greece, and Sweden read for information outside of school every day or almost every day. Significantly greater percentages of girls in Bulgaria, New Zealand, and Scotland read for information outside of school at least once a week.

Students' interactions with their families about what they are reading can help foster an interest in learning and improve students' abilities to construct meaning from text. PIRLS asked both students and their parents how often they talked about what the student was reading. Exhibit 8.10 shows parents' reports of how often they talked with their children about what the children were reading. Students' reports of how often they talked with their families about their reading are summarized in Exhibit 8.11. On average, internationally, about one-third of the students' parents reported talking with their children daily about what they were reading. The same percentage of students reported talking every day or almost every day with their families about what they were reading. In Colombia, Cyprus, and Iran, the percentages of students who reported talking daily with their families about reading were higher than the percentages of students whose parents reported talking daily. This difference may be a result of students talking about their reading with other members of the family besides their parents.

## How Often Do Students Watch Television or Videos?

Exhibit 8.12 presents students' reports of how often they watched television or videos on a normal school day. On average, internationally, 43 percent of students reported watching television or videos less than 1 hour a day and 45 percent watching television or videos between 1 and 5 hours a day. The average number of hours students spent watching television or videos across countries was 2 hours per day. Half or more of the students in Belize, Germany, Greece, Iceland, Iran, Italy, Kuwait, Morocco, Norway, the Russian Federation, and Turkey reported spending less than an hour a day watching television or videos. In comparison, more than one-third of students in Argentina, England, Israel, and the Slovak Republic said they watched three or more hours of television or videos on a normal school day.

( ) 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.

[^6] achievement.

Exhibit 8.6: Students Read Stories or Novels Outside of School 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 | 33 (1.1) | 417 (7.4) | 25 (1.1) | 432 (7.8) | 13 (0.8) | 430 (10.0) | 29 (1.3) | 434 (6.3) |
| Belize | 32 (1.4) | 342 (6.1) | 30 (0.9) | 334 (7.1) | 14 (0.7) | 317 (6.9) | 25 (1.6) | 315 (7.3) |
| Bulgaria | 28 (1.2) | 571 (5.0) | 29 (1.0) | 555 (4.1) | 21 (1.0) | 558 (4.8) | 22 (1.6) | 519 (7.0) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 46 (0.9) | 559 (3.1) | 28 (0.7) | 543 (2.7) | 15 (0.6) | 528 (3.2) | 10 (0.6) | 505 (4.1) |
| Colombia | 51 (1.8) | 413 (4.8) | 27 (1.1) | 430 (6.1) | 11 (0.8) | 445 (7.3) | 12 (0.9) | 436 (7.4) |
| Cyprus | 29 (1.0) | 504 (4.7) | 37 (1.2) | 497 (3.3) | 21 (0.9) | 496 (4.6) | 13 (0.7) | 472 (5.6) |
| Czech Republic | 21 (1.1) | 550 (3.8) | 23 (1.0) | 542 (3.4) | 19 (0.8) | 545 (3.4) | 37 (1.3) | 524 (2.9) |
| England | 38 (1.2) | 574 (3.8) | 32 (0.9) | 553 (4.6) | 17 (0.7) | 547 (4.3) | 13 (0.8) | 501 (4.2) |
| France | 30 (1.2) | 545 (3.8) | 28 (0.8) | 524 (3.1) | 20 (0.7) | 522 (3.8) | 22 (1.0) | 505 (3.0) |
| Germany | 27 (0.7) | 556 (2.5) | 20 (0.7) | 543 (2.4) | 15 (0.6) | 538 (3.4) | 38 (1.0) | 527 (2.3) |
| Greece | 29 (1.2) | 537 (4.5) | 38 (1.4) | 521 (5.1) | 21 (1.0) | 523 (4.6) | 12 (0.8) | 513 (6.8) |
| Hong Kong, SAR | 20 (1.0) | 542 (3.5) | 44 (0.9) | 535 (3.1) | 23 (0.8) | 521 (3.7) | 12 (0.6) | 499 (5.1) |
| Hungary | 33 (0.9) | 551 (3.3) | 33 (1.0) | 541 (2.8) | 23 (0.9) | 543 (2.4) | 12 (0.7) | 532 (3.9) |
| Iceland | 44 (0.7) | 529 (2.2) | 26 (0.6) | 511 (2.4) | 14 (0.6) | 507 (3.3) | 16 (0.5) | 483 (3.2) |
| Iran, Islamic Rep. of | 22 (0.9) | 415 (6.1) | 42 (0.9) | 423 (4.8) | 21 (0.9) | 422 (4.8) | 14 (1.3) | 380 (6.7) |
| Israel | 30 (1.1) | 507 (5.1) | 27 (1.0) | 499 (4.1) | 15 (0.7) | 510 (4.9) | 28 (1.3) | 527 (3.7) |
| Italy | 15 (0.8) | 562 (4.5) | 18 (0.7) | 542 (3.9) | 17 (0.6) | 550 (4.1) | 51 (1.1) | 533 (2.5) |
| Kuwait r | 28 (1.3) | 414 (4.5) | 36 (1.2) | 406 (4.6) | 21 (1.0) | 397 (6.4) | 16 (1.2) | 371 (8.4) |
| Latvia | 23 (0.9) | 559 (4.2) | 27 (0.9) | 545 (3.5) | 20 (0.8) | 548 (3.4) | 30 (1.0) | 532 (2.8) |
| Lithuania | 27 (1.2) | 551 (3.6) | 31 (1.0) | 544 (3.3) | 20 (0.9) | 556 (4.3) | 22 (1.1) | 526 (4.0) |
| Macedonia, Rep. of | 49 (1.4) | 447 (5.5) | 34 (1.2) | 448 (6.1) | 14 (1.1) | 441 (7.7) | 3 (0.4) | 414 (10.8) |
| Moldova, Rep. of | 23 (1.5) | 501 (5.0) | 44 (1.9) | 494 (4.2) | 22 (1.5) | 492 (6.8) | 11 (1.1) | 475 (6.5) |
| Morocco | 18 (1.1) | 340 (9.0) | 34 (1.6) | 345 (8.0) | 25 (1.2) | 354 (8.4) | 23 (2.4) | 366 (25.6) |
| Netherlands | 48 (1.1) | 565 (2.8) | 26 (0.9) | 551 (2.5) | 12 (0.6) | 548 (3.6) | 14 (0.8) | 530 (3.9) |
| New Zealand | 46 (1.5) | 556 (4.7) | 30 (1.1) | 527 (4.3) | 13 (0.8) | 509 (5.8) | 10 (0.8) | 457 (7.8) |
| Norway | 18 (0.9) | 519 (5.5) | 25 (0.9) | 499 (3.7) | 19 (0.9) | 505 (4.3) | 37 (1.4) | 488 (3.9) |
| Romania | 20 (1.2) | 503 (5.4) | 38 (1.5) | 517 (5.2) | 27 (1.2) | 527 (6.0) | 15 (1.2) | 489 (7.8) |
| Russian Federation | 56 (1.6) | 533 (4.6) | 30 (1.0) | 525 (5.4) | 9 (0.7) | 523 (6.2) | 6 (0.6) | 506 (4.9) |
| Scotland | 40 (1.3) | 550 (4.6) | 32 (1.0) | 523 (3.8) | 15 (0.7) | 526 (4.7) | 13 (0.9) | 481 (7.0) |
| Singapore | 53 (1.1) | 553 (4.9) | 27 (0.8) | 517 (4.8) | 11 (0.5) | 492 (6.1) | 9 (0.5) | 464 (7.8) |
| Slovak Republic | 15 (0.9) | 531 (4.9) | 21 (0.9) | 525 (3.8) | 22 (0.9) | 524 (3.3) | 42 (1.2) | 509 (3.8) |
| Slovenia | 26 (1.2) | 515 (3.1) | 27 (1.1) | 501 (3.2) | 19 (1.0) | 497 (3.6) | 27 (1.4) | 496 (3.4) |
| Sweden | 33 (0.8) | 580 (2.6) | 33 (0.7) | 557 (2.7) | 22 (0.6) | 555 (3.0) | 11 (0.6) | 528 (3.6) |
| Turkey | 35 (1.3) | 459 (4.3) | 41 (0.9) | 454 (4.1) | 17 (0.9) | 441 (5.2) | 7 (0.6) | 403 (7.1) |
| United States | 34 (1.5) | 560 (4.0) | 28 (1.1) | 548 (4.3) | 17 (0.8) | 548 (5.5) | 21 (1.0) | 505 (6.0) |
| International Avg. | 32 (0.2) | 512 (0.8) | 31 (0.2) | 501 (0.7) | 18 (0.1) | 500 (0.9) | 19 (0.2) | 478 (1.2) |

() 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.

[^7] achievement.

| Countries | Every Day or Almost Every Day |  | Once or Twice a Week |  | Once or Twice a Month |  | Never or Almost Never |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Girls | Percent of Boys | Percent of Girls | Percent of Boys | Percent of Girls | Percent of Boys | Percent of Girls | Percent of Boys |
| Argentina | 41 (1.3) | 24 (1.5) | 27 (1.5) | 23 (1.4) | 13 (1.0) | 14 (1.3) | 19 (1.1) | 39 (1.8) |
| Belize | 35 (1.5) | 29 (1.8) | 30 (1.5) | 29 (1.0) | 14 (1.0) | 14 (1.1) | 21 (1.6) | 28 (2.2) |
| Bulgaria | 35 (1.6) | 20 (1.3) | 30 (1.2) | 27 (1.5) | 18 (1.4) | 25 (1.3) | 17 (1.5) | 28 (1.9) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 55 (1.2) - | 37 (1.1) | 27 (0.9) | 30 (1.0) | 13 (0.8) | 18 (0.8) | 6 (0.5) | 14 (1.0) |
| Colombia | 56 (2.2) - | 46 (2.4) | 26 (1.6) | 27 (1.2) | 9 (0.9) | 13 (1.2) | 8 (1.0) | 15 (1.4) |
| Cyprus | 30 (1.6) | 27 (1.4) | 38 (1.6) | 36 (1.4) | 20 (1.3) | 22 (1.3) | 12 (0.8) | 15 (1.0) |
| Czech Republic | 27 (1.6) - | 15 (1.4) | 27 (1.4) | 19 (0.9) | 20 (1.2) | 18 (1.2) | 25 (1.5) | 47 (1.8) |
| England | 45 (1.5) | 29 (1.6) | 35 (1.4) | 28 (1.3) | 14 (1.0) | 21 (1.3) | 6 (0.7) | 21 (1.4) |
| France | 39 (1.5) | 21 (1.3) | 32 (1.3) | 25 (1.2) | 17 (1.0) | 22 (1.1) | 12 (0.9) | 31 (1.5) |
| Germany | 36 (1.2) | 18 (0.8) | 24 (0.9) | 17 (0.8) | 15 (0.8) | 15 (0.8) | 25 (1.2) | 50 (1.4) |
| Greece | 34 (1.8) - | 24 (1.3) | 39 (1.9) | 37 (1.6) | 18 (1.3) | 24 (1.3) | 9 (1.2) | 15 (1.1) |
| Hong Kong, SAR | 23 (1.3) - | 17 (0.9) | 51 (1.1) | 38 (1.1) | 19 (1.1) | 28 (1.0) | 7 (0.6) | 18 (1.0) |
| Hungary | 39 (1.2) - | 26 (1.2) | 35 (1.4) | 31 (1.2) | 20 (1.1) | 26 (1.1) | 6 (0.6) | 17 (1.2) |
| Iceland | 51 (1.0) - | 36 (1.0) | 26 (0.9) | 26 (1.0) | 12 (0.7) | 16 (0.9) | 10 (0.7) | 21 (0.9) |
| Iran, Islamic Rep. of | 23 (1.0) | 21 (1.4) | 42 (1.2) | 42 (1.5) | 20 (1.0) | 23 (1.2) | 15 (1.9) | 14 (1.1) |
| Israel | 34 (1.4) - | 26 (1.3) | 29 (1.2) | 25 (1.2) | 14 (0.8) | 16 (1.1) | 24 (1.4) | 33 (1.7) |
| Italy | 19 (1.1) | 11 (0.7) | 21 (1.1) | 15 (0.9) | 17 (1.0) | 16 (0.9) | 42 (1.4) | 58 (1.4) |
| Kuwait | 34 (1.7) - | 21 (1.9) | 38 (1.1) | 33 (2.1) | 18 (1.4) | 24 (1.5) | 10 (1.0) | 22 (2.4) |
| Latvia | 29 (1.9) - | 18 (1.3) | 29 (1.2) | 25 (1.3) | 20 (1.3) | 20 (1.1) | 21 (1.3) | 37 (1.5) |
| Lithuania | 35 (1.5) - | 18 (1.4) | 35 (1.4) | 27 (1.3) | 17 (1.1) | 23 (1.4) | 13 (1.0) | 31 (1.7) |
| Macedonia, Rep. of | 52 (1.7) | 45 (1.6) | 33 (1.3) | 35 (1.5) | 13 (1.2) | 15 (1.5) | 2 (0.4) | 4 (0.5) |
| Moldova, Rep. of | 26 (1.8) - | 20 (1.6) | 44 (2.3) | 43 (1.8) | 21 (1.7) | 24 (1.6) | 9 (1.2) | 12 (1.4) |
| Morocco | 18 (1.4) | 18 (1.3) | 36 (2.1) | 32 (1.7) | 27 (1.5) | 24 (1.6) | 19 (2.4) | 27 (2.9) |
| Netherlands | 61 (1.2) - | 35 (1.4) | 25 (1.1) | 27 (1.2) | 8 (0.7) | 17 (1.0) | 6 (0.8) | 21 (1.2) |
| New Zealand | 55 (1.8) - | 38 (1.9) | 31 (1.8) | 30 (1.2) | 9 (0.9) | 17 (1.2) | 5 (0.6) | 15 (1.4) |
| Norway | 27 (1.5) - | 11 (1.0) | 29 (1.1) | 21 (1.3) | 19 (1.4) | 20 (1.2) | 26 (1.6) | 48 (2.0) |
| Romania | 21 (1.5) | 19 (1.4) | 38 (1.9) | 38 (1.6) | 28 (1.8) | 26 (1.3) | 13 (1.3) | 17 (1.7) |
| Russian Federation | 64 (1.8) | 47 (1.6) | 26 (1.3) | 33 (1.1) | 7 (0.9) | 11 (0.8) | 3 (0.5) | 8 (0.9) |
| Scotland | 49 (1.6) | 32 (1.7) | 33 (1.4) | 30 (1.4) | 11 (0.9) | 20 (1.3) | 8 (0.9) | 18 (1.5) |
| Singapore | 61 (1.4) - | 45 (1.2) | 25 (1.1) | 29 (1.0) | 9 (0.6) | 13 (0.6) | 5 (0.5) | 12 (0.8) |
| Slovak Republic | 19 (1.3) | 11 (1.0) | 24 (1.4) | 18 (1.2) | 24 (1.2) | 20 (1.1) | 33 (1.7) | 51 (1.6) |
| Slovenia | 33 (1.7) - | 19 (1.3) | 29 (1.4) | 26 (1.3) | 18 (1.3) | 21 (1.3) | 21 (1.7) | 34 (1.7) |
| Sweden | 43 (1.3) - | 24 (1.0) | 32 (1.0) | 34 (1.0) | 18 (0.9) | 25 (0.7) | 6 (0.6) | 16 (0.9) |
| Turkey | 39 (1.6) | 31 (1.4) | 41 (1.3) | 41 (1.2) | 15 (1.1) | 20 (1.1) - | 5 (0.6) | 8 (0.8) |
| United States | 40 (2.1) | 28 (1.5) | 30 (1.6) | 27 (1.3) | 15 (1.0) | 19 (0.9) - | 16 (1.1) | 26 (1.3) |
| International Avg. | 38 (0.3) - | 26 (0.2) | 32 (0.2) | 29 (0.2) | 16 (0.2) | 20 (0.2) | 14 (0.2) | 25 (0.3) |

Significantly greater percentage than other gender

[^8] 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 8.8: Students Read for Information Outside of School*
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 r | 30 (1.1) | 419 (6.5) | 41 (1.1) | 433 (5.9) | 23 (1.2) | 435 (8.4) | 6 (0.6) | 439 (12.6) |
| Belize | 18 (1.6) | 344 (7.6) | 41 (1.2) | 340 (6.0) | 31 (1.4) | 316 (6.8) | 9 (0.8) | 300 (11.8) |
| Bulgaria | 27 (1.2) | 560 (4.8) | 44 (1.2) | 560 (3.8) | 21 (1.1) | 549 (5.5) | 7 (1.0) | 494 (12.0) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 13 (0.6) | 534 (3.9) | 41 (0.7) | 546 (2.7) | 36 (0.8) | 549 (2.8) | 10 (0.5) | 539 (4.4) |
| Colombia | 39 (2.3) | 405 (5.5) | 39 (1.6) | 438 (5.8) | 18 (1.4) | 437 (7.0) | 3 (0.4) | 435 (14.2) |
| Cyprus | 15 (0.6) | 485 (4.9) | 53 (1.1) | 500 (3.3) | 29 (1.2) | 500 (4.3) | 4 (0.4) | 461 (10.9) |
| Czech Republic | 13 (0.9) | 520 (3.9) | 47 (1.2) | 541 (2.2) | 33 (1.1) | 542 (2.9) | 7 (0.7) | 533 (6.3) |
| England | 12 (0.8) | 530 (6.0) | 43 (1.1) | 548 (3.5) | 37 (1.2) | 568 (4.5) | 8 (0.6) | 549 (7.5) |
| France | 12 (0.6) | 514 (4.2) | 39 (0.9) | 526 (3.2) | 39 (1.0) | 529 (2.8) | 11 (0.6) | 528 (4.9) |
| Germany | 14 (0.6) | 531 (3.1) | 38 (0.8) | 543 (2.2) | 35 (0.7) | 544 (2.6) | 13 (0.6) | 532 (3.0) |
| Greece | 12 (0.9) | 513 (5.9) | 51 (1.5) | 521 (4.4) | 32 (1.1) | 536 (4.5) | 5 (0.5) | 532 (10.3) |
| Hong Kong, SAR | 8 (0.5) | 523 (5.1) | 43 (1.0) | 533 (3.4) | 40 (0.8) | 527 (3.1) | 8 (0.5) | 519 (5.2) |
| Hungary | 19 (0.8) | 536 (3.2) | 46 (0.9) | 548 (2.6) | 28 (1.0) | 546 (2.8) | 7 (0.4) | 536 (5.6) |
| Iceland | $9(0.5)$ | 508 (5.2) | 33 (0.8) | 516 (2.1) | 40 (0.8) | 514 (2.2) | 18 (0.7) | 514 (3.5) |
| Iran, Islamic Rep. of | 14 (0.8) | 424 (5.9) | 39 (1.4) | 426 (4.4) | 38 (1.4) | 412 (4.7) | 10 (0.9) | 372 (8.0) |
| Israel | 22 (1.0) | 492 (5.3) | 43 (1.0) | 510 (3.4) | 27 (0.9) | 524 (4.2) | 8 (0.5) | 539 (6.8) |
| Italy | 12 (0.7) | 534 (4.7) | 39 (0.9) | 543 (2.9) | 38 (1.0) | 543 (2.8) | 11 (0.6) | 544 (4.9) |
| Kuwait | 25 (1.0) | 410 (4.9) | 43 (1.4) | 404 (4.0) | 24 (1.1) | 393 (6.4) | 8 (0.8) | 372 (12.3) |
| Latvia | 19 (0.9) | 538 (3.8) | 52 (1.4) | 545 (2.6) | 25 (1.4) | 550 (3.6) | 4 (0.4) | 557 (5.4) |
| Lithuania | 21 (1.0) | 537 (3.7) | 52 (0.9) | 547 (2.9) | 25 (1.2) | 545 (4.0) | 2 (0.2) | ~ |
| Macedonia, Rep. of | 37 (1.4) | 445 (5.5) | 47 (1.4) | 452 (5.0) | 14 (0.9) | 441 (8.1) | 2 (0.5) | ~ ~ |
| Moldova, Rep. of | 18 (1.5) | 491 (5.0) | 45 (1.9) | 500 (5.1) | 29 (1.6) | 490 (4.3) | 7 (1.1) | 474 (8.0) |
| Morocco | 11 (1.1) | 343 (12.5) | 39 (1.8) | 341 (8.2) | 32 (2.0) | 350 (9.0) | 17 (2.9) | 389 (36.5) |
| Netherlands | 4 (0.5) | 530 (6.8) | 23 (0.7) | 546 (3.7) | 43 (0.9) | 559 (2.5) | 29 (0.9) | 558 (2.9) |
| New Zealand | 15 (0.9) | 515 (6.2) | 42 (1.1) | 530 (4.4) | 34 (1.1) | 540 (4.0) | 9 (0.7) | 528 (8.1) |
| Norway | 10 (0.7) | 485 (6.1) | 38 (1.1) | 502 (3.0) | 38 (1.1) | 506 (3.8) | 13 (1.0) | 491 (6.3) |
| Romania | 19 (1.4) | 510 (5.3) | 48 (1.4) | 523 (5.0) | 28 (1.4) | 510 (6.3) | 4 (0.5) | 454 (10.8) |
| Russian Federation | 20 (1.0) | 516 (6.1) | 48 (1.2) | 531 (4.7) | 27 (1.0) | 535 (4.8) | 5 (0.7) | 530 (5.6) |
| Scotland | 14 (0.8) | 511 (5.9) | 43 (1.1) | 530 (4.4) | 35 (1.3) | 539 (4.4) | 8 (0.7) | 513 (10.1) |
| Singapore | 24 (0.7) | 533 (5.6) | 47 (0.6) | 531 (5.3) | 24 (0.6) | 525 (5.4) | 4 (0.3) | 508 (9.6) |
| Slovak Republic | 20 (0.9) | 514 (4.9) | 49 (1.0) | 524 (2.8) | 26 (0.9) | 520 (3.3) | 5 (0.5) | 481 (10.7) |
| Slovenia | 23 (1.1) | 501 (3.3) | 46 (1.1) | 504 (2.5) | 25 (0.9) | 506 (3.1) | 5 (0.5) | 480 (7.5) |
| Sweden | 6 (0.4) | 557 (5.3) | 31 (0.7) | 561 (2.9) | 41 (0.8) | 566 (2.4) | 22 (0.9) | 554 (3.3) |
| Turkey | 29 (1.6) | 465 (4.8) | 44 (1.2) | 454 (3.9) | 22 (1.3) | 438 (4.2) | 5 (1.2) | 385 (15.1) |
| United States | 17 (0.9) | 527 (5.1) | 44 (1.0) | 542 (3.8) | 30 (1.0) | 556 (4.2) | 8 (0.6) | 544 (7.7) |
| International Avg. | 18 (0.2) | 494 (0.9) | 43 (0.2) | 504 (0.7) | 31 (0.2) | 504 (0.8) | 9 (0.1) | 490 (1.9) |

*Based on students' responses on how often they read to find out about things and how often they read the following things outside of school: books that explain things; magazines; newspapers; directions or instructions. Average is computed 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 8.9: Students Read for Information Outside of School by Gender*

| Countries | Every Day or Almost Every Day |  | Once or Twice a Week |  | Once or Twice a Month |  | Never or Almost Never |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Girls | Percent of Boys | Percent of Girls | Percent of Boys | Percent of Girls | Percent of Boys | Percent of Girls | Percent of Boys |
| Argentina | 32 (1.5) | 29 (1.4) | 41 (1.6) | 42 (1.6) | 22 (1.6) | 24 (1.5) | 5 (0.7) | 6 (0.9) |
| Belize | 20 (2.0) - | 17 (1.7) | 42 (1.6) | 40 (1.8) | 30 (1.9) | 33 (1.6) | 8 (0.9) | 11 (1.1) |
| Bulgaria | 29 (1.6) - | 25 (1.4) | 47 (1.5) - | 42 (1.4) | 19 (1.3) | 24 (1.3) | 5 (0.8) | 9 (1.3) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 13 (0.7) | 13 (0.7) | 43 (1.0) | 40 (0.9) | 37 (1.1) | 35 (1.1) | 8 (0.6) | 12 (0.7) |
| Colombia | 40 (2.6) | 38 (2.6) | 38 (1.7) | 41 (1.9) | 19 (1.9) | 18 (1.4) | 3 (0.6) | 3 (0.6) |
| Cyprus | 13 (1.0) | 17 (0.9) - | 56 (1.4) - | 50 (1.5) | 28 (1.5) | 29 (1.5) | 3 (0.5) | $4(0.6) \bigcirc$ |
| Czech Republic | 14 (1.2) | 13 (1.0) | 46 (1.8) | 47 (1.6) | 33 (1.6) | 33 (1.3) | 7 (0.9) | 7 (0.8) |
| England | 12 (1.1) | 12 (1.0) | 45 (1.5) | 42 (1.4) | 37 (1.6) | 36 (1.6) | 6 (0.8) | 10 (0.8) - |
| France | 11 (0.9) | 12 (0.9) | 39 (1.3) | 39 (1.3) | 40 (1.4) | 37 (1.3) | 10 (1.0) | 12 (0.9) |
| Germany | 14 (0.8) | 14 (0.7) | 41 (1.1) | 35 (1.0) | 35 (1.1) | 35 (1.1) | 10 (0.7) | 15 (0.9) - |
| Greece | 10 (1.1) | 15 (1.2) - | 49 (2.3) | 52 (1.9) | 36 (1.8) - | 29 (1.6) | 5 (0.8) | 4 (0.7) |
| Hong Kong, SAR | 8 (0.6) | 8 (0.7) | 47 (1.2) | 39 (1.2) | 38 (1.0) | 42 (1.1) - | 6 (0.6) | 11 (0.6) |
| Hungary | 21 (1.2) | 17 (1.1) | 47 (1.2) | 45 (1.4) | 27 (1.3) | 29 (1.1) | 6 (0.5) | 9 (0.7) - |
| Iceland | 8 (0.6) | 9 (0.8) | 32 (1.0) | 33 (1.2) | 42 (1.1) | 39 (1.1) | 18 (0.9) | 18 (1.0) |
| Iran, Islamic Rep. of | 13 (1.1) | 14 (1.1) | 38 (1.6) | 40 (2.0) | 39 (1.5) | 36 (2.1) | 10 (1.1) | 10 (1.3) |
| Israel | 23 (1.2) | 21 (1.2) | 45 (1.5) | 42 (1.3) | 25 (1.2) | 28 (1.2) - | 7 (0.9) | 8 (0.7) |
| Italy | 12 (0.8) | 12 (0.9) | 38 (1.1) | 40 (1.4) | 39 (1.4) | 36 (1.4) | 11 (0.7) | 12 (0.9) |
| Kuwait | 27 (1.3) | 23 (1.5) | 44 (1.4) | 41 (2.3) | 23 (1.1) | 25 (1.8) | 6 (1.0) | 11 (1.2) |
| Latvia | 21 (1.2) | 18 (1.2) | 54 (1.7) - | 50 (1.7) | 23 (1.4) | 27 (1.8) - | 3 (0.5) | 5 (0.7) |
| Lithuania | 23 (1.3) | 20 (1.4) | 53 (1.4) | 52 (1.5) | 24 (1.4) | 26 (1.5) | 1 (0.3) | 3 (0.4) |
| Macedonia, Rep. of | 38 (1.8) | 36 (1.5) | 47 (1.6) | 47 (1.7) | 13 (1.1) | 15 (1.1) | 2 (0.4) | 2 (0.6) |
| Moldova, Rep. of | 19 (1.9) | 17 (1.4) | 49 (2.3) | 42 (2.0) | 27 (1.7) | 31 (1.9) - | 5 (1.1) | 9 (1.3) |
| Morocco | 11 (1.5) | 12 (1.2) | 41 (2.2) | 38 (2.1) | 33 (2.4) | 32 (2.1) | 15 (3.0) | 19 (3.1) |
| Netherlands | 4 (0.6) | 4 (0.6) | 23 (1.1) | 24 (1.0) | 43 (1.1) | 42 (1.4) | 29 (1.1) | 30 (1.3) |
| New Zealand | 19 (1.3) | 12 (1.1) | 44 (1.5) | 39 (1.5) | 31 (1.7) | 37 (1.5) - | 6 (0.7) | 11 (1.0) |
| Norway | 11 (1.1) | 10 (1.0) | 38 (1.5) | 38 (1.4) | 38 (1.7) | 38 (1.5) | 13 (1.2) | 14 (1.4) |
| Romania | 19 (1.7) | 20 (1.7) | 48 (1.6) | 48 (2.0) | 29 (1.6) | 27 (1.6) | 3 (0.6) | 5 (0.7) - |
| Russian Federation | 21 (1.2) | 19 (1.3) | 47 (1.6) | 49 (1.4) | 27 (1.1) | 27 (1.3) | 4 (0.6) | 6 (0.9) - |
| Scotland | 16 (1.1) | 13 (1.2) | 46 (1.4) | 40 (1.7) | 33 (1.6) | 36 (1.5) | 5 (0.8) | 11 (1.1) |
| Singapore | 27 (1.1) | 21 (0.7) | 47 (1.0) | 48 (1.0) | 23 (1.0) | 26 (0.8) - | 3 (0.3) | $5(0.4)$ |
| Slovak Republic | 20 (1.2) | 20 (1.1) | 50 (1.4) | 48 (1.3) | 26 (1.2) | 26 (1.2) | 4 (0.5) | 5 (0.8) |
| Slovenia | 24 (1.3) | 22 (1.4) | 47 (1.5) | 46 (1.5) | 24 (1.3) | 26 (1.4) | 5 (0.6) | 6 (0.7) |
| Sweden | 4 (0.5) | 8 (0.7) - | 30 (1.3) | 31 (1.0) | 43 (1.3) | 40 (0.8) | 23 (1.5) | 21 (1.0) |
| Turkey | 30 (1.9) | 28 (1.8) | 45 (1.6) | 44 (1.4) | 21 (1.6) | 22 (1.5) | 4 (1.6) | 5 (1.1) |
| United States | 18 (1.3) | 17 (1.0) | 45 (1.6) | 44 (1.2) | 31 (1.6) | 30 (1.2) | 6 (0.8) | 9 (0.9) - |
| International Avg. | 18 (0.2) | 17 (0.2) | 44 (0.3) | 42 (0.3) | 30 (0.2) | 31 (0.2) | 8 (0.2) | 10 (0.2) |

Significantly greater percentage than other gender
*Based on students' responses on how often they read to find out about things and how often they read the following things outside of school: books that explain things; magazines; newspapers; directions or instructions. Average is computed 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

[^9][^10]Exhibit 8.10: Parents Talk with Their Child About What the Child is 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.

[^11] achievement.

| Exhibit 8.11: | Students Talk with Their Families About What the <br> Students are Reading | \|SC4th Grade <br> 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 | 47 (1.3) | 419 (5.9) | 24 (0.9) | 442 (6.5) | 10 (0.7) | 420 (8.5) | 19 (1.1) | 433 (8.4) |
| Belize | 40 (1.9) | 337 (5.9) | 24 (1.2) | 329 (6.6) | 14 (0.7) | 322 (8.8) | 22 (1.0) | 321 (8.0) |
| Bulgaria | 47 (1.5) | 551 (4.6) | 27 (0.9) | 564 (4.4) | 11 (0.7) | 556 (6.2) | 15 (1.1) | 533 (7.0) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 29 (0.9) | 542 (3.2) | 30 (0.7) | 550 (2.9) | 20 (0.8) | 554 (2.9) | 21 (0.8) | 531 (3.1) |
| Colombia | 53 (1.9) | 414 (4.9) | 25 (1.3) | 437 (6.2) | 10 (0.7) | 442 (7.6) | 12 (1.0) | 432 (6.9) |
| Cyprus | 50 (1.2) | 496 (3.6) | 26 (1.1) | 498 (3.6) | 12 (0.7) | 492 (5.7) | 12 (0.8) | 488 (5.3) |
| Czech Republic | 16 (1.0) | 521 (4.4) | 27 (1.1) | 546 (3.1) | 25 (0.9) | 553 (3.4) | 32 (1.2) | 527 (3.1) |
| England | 21 (1.0) | 529 (4.1) | 33 (1.0) | 568 (3.5) | 21 (0.7) | 570 (4.5) | 26 (1.2) | 543 (5.1) |
| France | 26 (0.9) | 523 (3.7) | 27 (0.8) | 532 (3.4) | 18 (0.9) | 535 (4.1) | 28 (0.9) | 517 (3.1) |
| Germany | 17 (0.7) | 531 (3.4) | 26 (0.7) | 545 (2.6) | 20 (0.6) | 550 (2.6) | 37 (0.9) | 535 (2.5) |
| Greece | 60 (1.4) | 521 (3.7) | 22 (1.1) | 529 (5.6) | $9(0.8)$ | 538 (7.2) | 9 (0.6) | 530 (6.3) |
| Hong Kong, SAR | 22 (0.9) | 535 (3.4) | 31 (0.8) | 535 (3.3) | 26 (0.7) | 526 (3.7) | 21 (0.9) | 516 (4.8) |
| Hungary | 27 (1.2) | 538 (3.3) | 32 (1.1) | 550 (3.1) | 20 (0.7) | 546 (2.6) | 21 (0.9) | 541 (2.9) |
| Iceland | 23 (0.6) | 500 (2.8) | 25 (0.8) | 523 (2.6) | 18 (0.7) | 525 (3.0) | 35 (0.9) | 511 (2.4) |
| Iran, Islamic Rep. of | 55 (1.3) | 420 (3.8) | 28 (0.9) | 416 (6.3) | 10 (0.6) | 402 (6.7) | 8 (0.8) | 388 (7.5) |
| Israel | 36 (1.1) | 501 (4.0) | 28 (0.8) | 521 (3.6) | 16 (0.8) | 528 (5.4) | 21 (0.9) | 505 (4.2) |
| Italy | 37 (0.9) | 539 (2.8) | 27 (0.8) | 548 (3.4) | 13 (0.6) | 544 (4.5) | 23 (0.8) | 533 (3.4) |
| Kuwait | 53 (1.0) | 403 (4.6) | 26 (0.8) | 404 (4.9) | 12 (0.6) | 395 (6.3) | 10 (0.6) | 388 (7.2) |
| Latvia | 26 (1.2) | 537 (3.9) | 34 (1.0) | 547 (3.1) | 19 (0.9) | 553 (3.6) | 21 (0.9) | 547 (3.3) |
| Lithuania | 30 (1.0) | 532 (3.6) | 32 (1.0) | 551 (3.4) | 19 (0.9) | 553 (3.8) | 19 (0.9) | 539 (3.6) |
| Macedonia, Rep. of | 62 (1.3) | 444 (4.9) | 26 (1.1) | 453 (6.4) | 8 (0.6) | 446 (11.3) | 4 (0.4) | 444 (12.0) |
| Moldova, Rep. of | 41 (2.0) | 489 (4.9) | 35 (1.4) | 497 (4.4) | 14 (1.2) | 502 (5.7) | 10 (1.2) | 480 (6.4) |
| Morocco | 44 (1.8) | 350 (8.8) | 32 (1.2) | 348 (9.1) | 14 (1.0) | 336 (12.8) | 10 (1.4) | 399 (22.8) |
| Netherlands | 9 (0.5) | 555 (5.6) | 19 (0.9) | 561 (3.6) | 18 (0.8) | 564 (3.1) | 55 (1.1) | 549 (2.7) |
| New Zealand | 26 (1.2) | 517 (5.3) | 30 (1.0) | 544 (4.5) | 20 (1.1) | 544 (6.5) | 23 (1.0) | 516 (4.5) |
| Norway | 19 (0.7) | 482 (4.7) | 27 (0.9) | 503 (3.6) | 20 (0.7) | 516 (4.7) | 35 (1.1) | 498 (4.0) |
| Romania | 49 (1.9) | 508 (4.4) | 30 (1.3) | 518 (6.6) | 12 (0.8) | 527 (8.7) | 10 (0.9) | 508 (8.0) |
| Russian Federation | 50 (1.2) | 528 (4.8) | 27 (1.0) | 526 (5.0) | 12 (0.8) | 535 (6.2) | 12 (1.0) | 528 (5.5) |
| Scotland | 24 (1.3) | 504 (5.2) | 33 (1.2) | 541 (4.2) | 18 (1.0) | 554 (3.9) | 25 (1.3) | 519 (6.6) |
| Singapore | 23 (0.7) | 520 (6.3) | 27 (0.6) | 535 (5.4) | 19 (0.5) | 537 (5.8) | 31 (0.8) | 524 (5.2) |
| Slovak Republic | 23 (1.1) | 510 (4.3) | 31 (1.1) | 532 (3.0) | 23 (0.9) | 526 (3.3) | 23 (1.3) | 503 (5.5) |
| Slovenia | 25 (1.1) | 492 (3.2) | 31 (1.0) | 507 (2.9) | 20 (0.9) | 511 (4.6) | 24 (1.3) | 501 (3.4) |
| Sweden | 17 (0.8) | 551 (3.8) | 30 (0.8) | 568 (2.8) | 28 (0.8) | 567 (2.6) | 25 (1.0) | 553 (2.9) |
| Turkey | 48 (1.3) | 457 (4.1) | 31 (1.1) | 453 (4.7) | 12 (0.7) | 439 (4.7) | 10 (1.3) | 423 (10.6) |
| United States | 27 (0.8) | 532 (4.7) | 28 (1.2) | 556 (3.7) | 18 (0.7) | 554 (5.1) | 26 (1.1) | 532 (5.5) |
| International Avg. | 34 (0.2) | 495 (0.8) | 28 (0.2) | 508 (0.8) | 16 (0.1) | 507 (1.0) | 21 (0.2) | 495 (1.1) |

() 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]Exhibit 8.12: Students Spend Time Watching Television or Videos on a Normal School Day

| Countries | Less than 1 Hour |  | From 1 Hour up to 3 Hours |  | From 3 Hours up to 5 Hours |  | 5 Hours or More |  | Average Number of Hours per Day |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |  |
| Argentina | 37 (1.4) | 423 (5.7) | 21 (1.0) | 436 (8.0) | 17 (0.8) | 422 (8.0) | 25 (1.1) | 427 (6.3) | 2.6 (0.06) |
| Belize | 59 (1.6) | 337 (5.4) | 15 (0.9) | 314 (8.4) | 9 (0.7) | 302 (9.1) | 16 (1.3) | 331 (8.6) | 1.8 (0.07) |
| Bulgaria | 30 (1.2) | 542 (4.6) | 38 (1.3) | 564 (4.6) | 18 (0.8) | 552 (5.4) | 15 (0.9) | 542 (5.3) | 2.4 (0.05) |
| Canada ( $\mathrm{O}, \mathrm{Q}$ ) | 44 (1.0) | 541 (3.1) | 32 (0.8) | 558 (2.7) | 11 (0.5) | 545 (3.3) | 13 (0.6) | 522 (3.8) | 2.0 (0.03) |
| Colombia | 49 (1.6) | 415 (4.4) | 21 (1.1) | 440 (6.0) | 13 (1.0) | 427 (7.7) | 17 (1.1) | 431 (6.3) | 2.0 (0.06) |
| Cyprus | 45 (1.3) | 495 (3.2) | 29 (1.0) | 502 (4.7) | 12 (0.7) | 500 (5.0) | 13 (0.9) | 477 (6.6) | 2.0 (0.05) |
| Czech Republic | 30 (1.1) | 539 (3.2) | 44 (1.0) | 545 (2.5) | 14 (0.9) | 538 (3.9) | 12 (0.7) | 502 (4.9) | 2.2 (0.04) |
| England | 27 (1.1) | 544 (6.2) | 36 (1.0) | 569 (3.3) | 17 (0.9) | 569 (5.1) | 20 (1.1) | 522 (5.0) | 2.6 (0.05) |
| France | 47 (1.2) | 530 (3.7) | 37 (1.2) | 531 (2.8) | 7 (0.6) | 515 (5.0) | 8 (0.7) | 487 (5.2) | 1.7 (0.04) |
| Germany | 52 (1.0) | 541 (2.1) | 33 (0.8) | 546 (2.6) | 8 (0.5) | 533 (4.6) | 7 (0.5) | 513 (3.5) | 1.6 (0.03) |
| Greece | 59 (1.2) | 527 (4.2) | 29 (1.2) | 532 (4.2) | 6 (0.7) | 518 (5.8) | 6 (0.5) | 482 (9.0) | 1.4 (0.03) |
| Hong Kong, SAR | 39 (1.7) | 513 (3.4) | 37 (1.0) | 541 (3.0) | 16 (0.9) | 538 (4.1) | 9 (0.6) | 530 (6.0) | 2.0 (0.06) |
| Hungary | 42 (1.3) | 546 (2.7) | 32 (0.9) | 554 (2.9) | 14 (0.8) | 539 (3.7) | 12 (0.8) | 514 (3.7) | 2.0 (0.05) |
| Iceland | 62 (0.9) | 514 (1.5) | 28 (0.8) | 523 (2.8) | 5 (0.3) | 511 (5.2) | 4 (0.4) | 476 (6.1) | 1.2 (0.03) |
| Iran, Islamic Rep. of | 56 (1.2) | 413 (4.6) | 22 (0.9) | 420 (4.9) | 11 (0.6) | 415 (9.3) | 10 (0.6) | 411 (7.9) | 1.7 (0.04) |
| Israel | 32 (1.1) | 479 (4.0) | 29 (0.9) | 530 (4.2) | 14 (0.6) | 529 (4.5) | 25 (1.1) | 521 (3.4) | 2.6 (0.05) |
| Italy | 58 (1.2) | 539 (2.6) | 28 (0.9) | 554 (3.0) | 7 (0.5) | 534 (5.0) | 7 (0.5) | 507 (5.2) | 1.5 (0.04) |
| Kuwait r | 51 (1.3) | 404 (3.9) | 30 (1.1) | 399 (6.4) | 10 (0.6) | 395 (7.9) | 9 (0.5) | 396 (6.6) | r 1.7 (0.04) |
| Latvia | 27 (1.0) | 537 (4.0) | 42 (1.4) | 556 (3.1) | 17 (0.8) | 553 (3.8) | 15 (0.8) | 520 (4.0) | 2.4 (0.04) |
| Lithuania | 35 (1.1) | 525 (3.4) | 36 (1.1) | 562 (3.1) | 18 (0.8) | 546 (4.4) | 12 (0.9) | 541 (4.4) | 2.2 (0.05) |
| Macedonia, Rep. of | 48 (1.7) | 440 (4.9) | 34 (1.2) | 467 (4.6) | 10 (0.8) | 430 (10.3) | 8 (0.8) | 422 (8.5) | 1.7 (0.05) |
| Moldova, Rep. of | 37 (1.8) | 480 (4.6) | 34 (1.7) | 506 (5.3) | 16 (0.9) | 494 (6.0) | 14 (1.3) | 492 (5.1) | 2.2 (0.07) |
| Morocco | 56 (2.2) | 358 (11.0) | 24 (1.5) | 342 (7.2) | 9 (0.7) | 336 (10.7) | 11 (1.2) | 346 (17.1) | 1.6 (0.08) |
| Netherlands | 26 (1.1) | 558 (3.2) | 44 (1.2) | 565 (2.4) | 16 (0.9) | 547 (3.8) | 14 (1.0) | 526 (5.1) | 2.4 (0.05) |
| New Zealand | 40 (1.4) | 533 (4.5) | 32 (1.2) | 551 (4.5) | 12 (0.8) | 506 (6.4) | 16 (1.0) | 500 (5.8) | 2.1 (0.06) |
| Norway | 52 (1.2) | 498 (3.7) | 34 (1.0) | 505 (3.2) | 8 (0.6) | 507 (8.0) | 5 (0.5) | 473 (7.3) | 1.5 (0.04) |
| Romania | 36 (1.5) | 498 (4.9) | 38 (1.5) | 527 (5.8) | 16 (1.0) | 527 (7.1) | 10 (0.8) | 500 (6.0) | 2.1 (0.05) |
| Russian Federation | 50 (1.2) | 526 (4.4) | 31 (1.3) | 536 (4.7) | 12 (0.7) | 528 (6.7) | 7 (0.4) | 513 (6.0) | 1.7 (0.03) |
| Scotland | 38 (1.2) | 521 (5.0) | 32 (0.9) | 545 (4.2) | 13 (0.8) | 539 (5.0) | 17 (1.0) | 505 (4.5) | 2.3 (0.05) |
| Singapore | 47 (1.0) | 523 (5.3) | 33 (0.8) | 546 (5.2) | 10 (0.4) | 530 (5.3) | 10 (0.6) | 492 (8.0) | 1.8 (0.04) |
| Slovak Republic | 21 (1.0) | 510 (4.2) | 41 (1.2) | 529 (3.3) | 21 (1.0) | 523 (4.0) | 17 (1.0) | 502 (3.9) | 2.7 (0.05) |
| Slovenia | 39 (1.3) | 501 (2.9) | 40 (1.1) | 510 (2.6) | 10 (0.7) | 505 (5.3) | 11 (1.0) | 474 (6.0) | 2.0 (0.05) |
| Sweden | 23 (0.7) | 564 (2.8) | 55 (0.8) | 566 (2.4) | 15 (0.5) | 556 (4.2) | 7 (0.5) | 527 (5.4) | 2.2 (0.02) |
| Turkey | 60 (1.3) | 450 (3.5) | 25 (1.0) | 455 (4.9) | 8 (0.6) | 445 (11.3) | 6 (0.6) | 430 (9.3) | 1.4 (0.04) |
| United States | 41 (1.5) | 541 (4.2) | 30 (1.1) | 564 (3.8) | 11 (0.6) | 559 (6.9) | 18 (1.4) | 502 (4.8) | 2.2 (0.07) |
| International Avg. | 43 (0.2) | 497 (0.7) | 33 (0.2) | 511 (0.8) | 12 (0.1) | 500 (1.1) | 12 (0.1) | 482 (1.1) | 2.0 (0.01) | 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.


[^0]:    Disagree a little $=2$, Agree a little $=3$, and Agree a lot $=4$. Responses for negative statement were reverse-coded. High level indicates an average greater than 3 through 4. Medium level indicates an average of 2 through 3. Low level indicates an average of 1 to less than 2 .

[^1]:    ( ) 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.

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

[^3]:    ) Standard errors appear in parentheses. Because results are rounded to the nearest whole

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

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

[^6]:    A dash (-) indicates data are not available. A tilde ( ) indicates insufficient data to report

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

[^8]:    ( ) Standard errors appear in parentheses. Because results are rounded to the nearest whole

[^9]:    ( ) 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.

[^10]:    A dash (-) indicates data are not available. A tilde ( $\sim$ ) 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 achievement.

[^13]:    A dash (-) indicates data are not available. A tilde ( $\sim$ ) indicates insufficient data to report

